Honeywell

Airborne Flight Information System

Global Data Center Services Reference Guide

Honeywell Flight Management System
Global Flight Management System
Universal Flight Management System
Collins Flight Management System

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Document 176-9001-991 Version 4

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AFIS

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Introduction

Thank you for choosing Honeywell's Global Data Center (GDC) as your provider of flight support services. Through the GDC, you will receive efficient flight planning and filing, vital textual and graphical weather reports and forecasts, essential air traffic services, and extensive communication capabilities. As a participant in the FAA's Collaborative Decision Making program, additional Flight Sentinel[SM] services utilize powerful real-time flight management methods to enhance safety and mitigate the adverse impact of weather and air traffic delays.

GDC Services

Flight Planning Services Compute, file, uplink, update, and load domestic and international flight plans with wind optimized routes, Air Traffic Control (ATC) preferred routes, North Atlantic (NAT) Track routes, Central East Pacific routes ("Hawaiian Tracks"), customer stored routes, and pilot-defined random routes. Flight plans are computed based on performance data provided by the aircraft manufacturer, navigation database information from Jeppesen, and winds and temperatures aloft forecasts from the National Weather Service.

Weather Services Obtain preflight and inflight weather reports and forecasts, including route weather briefings, terminal weather reports and forecasts, winds and temperatures aloft forecasts, SIGMET forecasts, plain language weather forecasts, and graphical weather products.

Air Traffic Services Receive Digital Automated Terminal Information Service (D-ATIS) reports, Terminal Weather Information for Pilots (TWIP) reports, Pre-Departure Clearances (PDCs), eastbound oceanic clearances via datalink, NAT Track Messages, air traffic flow control reports, and airport reservations (AROs).

Dispatching Services Obtain aircraft takeoff reports, landing reports, and automatic position reports via fax, e-mail, and personal computer for accurate and timely flight following.

Messaging Services Send free text messages to the GDC, to other datalink equipped aircraft subscribing to GDC services, to ARINC, SITA, and AFTN addresses, and to telephone numbers, fax machines, and e-mail addresses.

GDC Services Access

Flight Data and Flight Control Specialists Call the GDC twenty-four hours a day at 888.634.3330 or 425.885.8100 to speak with a Flight Data Specialist or Flight Control Specialist, aviation professionals able to provide all GDC services.

AFISCOM Express With AFISCOM Express software installed on a personal computer, connect to the GDC computer system via the Internet or dial-up modem in order to directly access GDC services. The latest version of AFISCOM Express and the AFISCOM Express User's Guide are available for download at www.mygdc.com.

Web Please visit the GDC's website at www.mygdc.com to access an increasing number of services available from any computer with Web access.

Datalink Request GDC services via datalink through Honeywell's Airborne Flight Information System (AFIS®). Datalink, or the Aircraft Communications Addressing and Reporting System (ACARS), is a robust two-way data communications system between aircraft and ground systems. This guide describes AFIS operation, including how to uplink flight plans, request weather reports and forecasts, send and receive messages, and request air traffic services.

General Information

This section contains general information common to accessing GDC services via AFIS through all Flight Management System (FMS) interfaces.

Datalink System

Datalink Avionics The AFIS Data Management Unit (DMU) is the primary airborne component and is comprised of a data processor and integrated VHF transceiver. Optional airborne equipment may include a Satellite Data Communications System (SDCS) to provide datalink capability via satellite. The aircraft FMS provides the interface between the flight crew and the AFIS DMU.

Datalink Infrastructure By default, the AFIS DMU communicates via the land-based Aircraft Communication Addressing and Reporting System (ACARS) VHF network, which includes the ARINC and SITA subnetworks. Based on position information provided by the aircraft FMS, the DMU automatically tunes to the appropriate subnetwork. In areas where VHF coverage is unavailable, the DMU may use the Inmarsat Aero-C (data only) satellite network or the Inmarsat Aero-H, Aero-H+, and Aero-I (data and voice) satellite network. The DMU switches to and from the satellite network based on VHF network coverage.

Datalink Service Provider As a provider of flight support services, the GDC is at the hub of the AFIS system. In addition to performing host processing for AFIS, the GDC has telephone, fax, and network connections to ATC facilities, Fixed Base Operators (FBOs), multiple weather providers, and customer flight departments.

AFIS DMU Configuration

Configuration of the AFIS DMU is performed by modifying the information stored in the DMU configuration module. The configuration module is installed at the rear of the DMU avionics rack, which allows the DMU to be removed and replaced without having to configure the new unit. Parameters stored in the configuration module include the aircraft registration or permanent callsign, airline identifier, default power-up settings, and takeoff and landing report settings. Please refer to the AFIS DMU Configuration Procedures document available for download at www.mygdc.com for specific instructions to configure the DMU.

Line of Sight

All AFIS transmissions, whether VHF or satellite, require line of sight to a VHF ground station or Inmarsat satellite respectively. Please refer to Appendix B for a map of GDC datalink coverage.

This is most often a concern when transmitting VHF on the ground due to the curvature of the Earth, high surrounding terrain, and manmade structures. VHF transmissions from many airports are simply not possible because the nearest VHF ground station is below the horizon or blocked by surrounding terrain. Even at airports with VHF ground stations, VHF transmissions from certain areas of the airport may not be successful due to manmade structures obstructing line of sight. In flight, VHF coverage is normally excellent, although coverage limitations may exist at low altitudes.

Transmitting via satellite while on the ground is generally reliable, although line of sight issues may still arise due to surrounding terrain and manmade structures. The curvature of the Earth is a concern only at latitudes greater than 70° North or South because the Inmarsat satellites are in an equatorial geostationary orbit. Except at these high latitudes, satellite coverage while in flight is seamless.

Message Recipient Addresses

AFIS messages may be addressed to several different types of recipients, as indicated in the following table. For example, to address an automated message to a fax machine, enter the fax number with an “F” prefix, but with no dashes or spaces, in the address field of the message on the AFIS message page. To address an automated message to an e-mail recipient, please contact the GDC to set up a code that is entered in the address field of the message and then automatically converted to the desired e-mail address(es) when received at the GDC.

Message Recipient Addresses	
N12345	datalink equipped aircraft
425-885-8788	telephone number
F4258858930	fax number (“F” prefix)
AHDQGLXH	ARINC or SITA address (“A” prefix)
NKSNAXGSX	AFTN address (“N” prefix)
GDC	Global Data Center
JEPP	Jeppesen
UVAIR	Universal Weather & Aviation
ARI	Air Routing International
BASEOPS	Base Ops International

Pre-Departure Clearances

Pre-Departure Clearances (PDCs) are departure clearances received via datalink and are available at many airports in the United States to AFIS equipped aircraft. The aircraft, including any variable callsigns, must also be registered through the GDC with the FAA and ARINC. Use of PDCs at participating airports is mandatory once registered; please refer to Appendix A for a list of participating airports.

A PDC is based on a filed IFR flight plan, regardless of whether the flight plan was filed by the GDC, through an FSS, or via DUATS. Approximately 20 minutes prior to the filed time of departure of the flight plan, ATC will generate and then forward the PDC to the GDC for storage. With this in mind, request the PDC no earlier than 15 minutes prior to the filed time of departure. Because this short time is often insufficient to receive the clearance and depart as planned, the GDC recommends filing the flight plan with a time of departure 30 minutes earlier than the actual intended time of departure.

To request a PDC, send a datalink message with the text **PDC** immediately followed by the three- or four-letter departure airport identifier in the address field of the AFIS message page. For example, to request a PDC departing San Francisco International Airport, send a message with **PDCSFO** in the address field. To request a PDC when filed under a variable callsign (i.e., a callsign not programmed in the DMU configuration module), send a message with a special character (e.g., period, dash, slash, plus/minus, asterisk, etc.) or space between the airport and callsign. For example, to request a PDC when filed as GDC22, send a message with **PDCSLC.GDC22** or **PDCCLT GDC22** in the address field. Some FMSs may also require entries in the to, from, and message text fields in order to transmit the message; please refer to the appropriate sections of this guide for instructions specific to each FMS.

If the GDC has received the PDC from ATC, the PDC is sent to the aircraft as a datalink message. If the GDC has not received the PDC from ATC, a datalink message indicating that the PDC has not been received from ATC and that the PDC may be requested again in 5 minutes is sent to the aircraft. Multiple PDC requests may be sent until 10 minutes prior to the filed time of departure.

Once the PDC is received, the flight crew is required to follow the clearance. Be sure to page forward through the clearance until **END OF CLEARANCE** is displayed. An aircraft may receive only one PDC per airport per day, and a PDC will not be available if there is any change to the filed route and/or altitude or if the clearance needs to be negotiated. A PDC is valid for two hours beyond the filed time of departure.

Oceanic Clearances

Delivery of oceanic clearances via datalink for eastbound transatlantic flights is available from Gander Area Control Centre (ACC) to AFIS equipped aircraft. The aircraft, including any variable callsigns, must also be registered through the GDC with ARINC and Gander ACC.

When flight planning, ensure that the phrase "AGCS EQUIPPED" (AGCS is an acronym for Air to Ground Communication System) is included in the ATC remarks section of the filed flight plan. This remark informs Gander ACC that the flight crew desires to receive the oceanic clearance via datalink.

Gander ACC sends the clearance to the GDC 10 to 60 minutes prior to aircraft entry into oceanic airspace. For aircraft in flight, Gander ACC generally sends the clearance by 70° West longitude. For aircraft departing Gander (CYQX), Goose Bay (CYYR), and St. John's (CYYT) airports, Gander ACC sends the oceanic clearance to the GDC at the same time it sends the departure clearance to the tower. Readback of the oceanic clearance is given to the tower, after which the tower issues the departure clearance.

With automatic position reporting enabled, the GDC automatically sends the clearance to the aircraft as a datalink message as soon as it is received from Gander ACC. If automatic position reporting is disabled, the flight crew must request the clearance. To request the clearance, send a datalink message with the text `CLX` in the address field of the AFIS message page. To request the clearance when filed under a variable callsign (i.e., a callsign not programmed in the AFIS configuration module), send a datalink message with the text `CLX` immediately followed by the callsign in the address field. For example, to request an oceanic clearance when filed as GDC333, send a message with `CLXGDC333` in the address field. Begin requesting the clearance approaching 70° West longitude, but if the clearance is not received by 25 minutes prior to entry into oceanic airspace, contact Gander ACC on the appropriate voice frequency. If the GDC has received the oceanic clearance from Gander ACC, the clearance is sent to the aircraft as a datalink message. If the GDC has not received the oceanic clearance from Gander ACC, a datalink message indicating that the oceanic clearance has not been received from Gander ACC and that the oceanic clearance may be requested again in 10 minutes is sent to the aircraft. Multiple oceanic clearance requests may be sent until 25 minutes prior to entry into oceanic airspace. Oceanic clearances are valid for 30 minutes beyond the issue time and voice readback of oceanic clearances is required.

Other Air Traffic Services

Other air traffic services include D-ATIS reports, TWIP reports, air traffic flow control reports, and plain language weather forecasts. Like PDCs, these services are also requested via datalink message. For example, to request the D-ATIS report for George Bush Intercontinental Airport, send a datalink message with the text `ATISIAH` in the address field. Please refer to the following table for air traffic services addresses and to Appendix A for a list of air traffic services airports.

Air Traffic Services Addresses	
ATISIAH	D-ATIS at IAH
TWIPDCA	TWIP at DCA
FLOWEWR	Air traffic flow control report for EWR
METROORD	Plain language weather for Chicago
STATENY	Plain language weather for NY state

North Atlantic Track Message

The twice-daily North Atlantic (NAT) Track Message may be requested via AFIS. To request the NAT Track Message, enter NAT (all tracks), NATE (eastbound tracks only), or NATW (westbound tracks only) at the FROM field on the appropriate SIGMET update page and then send the request. The NAT Track Message will then be sent to the aircraft as an updated SIGMET forecast and displayed on the appropriate SIGMET page. Please refer to the appropriate sections of this guide for instructions specific to each FMS.

Weather with Flight Plan Uplinks

When the GDC uplinks a flight plan to an aircraft, it also uplinks terminal weather reports and forecasts for the departure, destination, and alternate (if any) airports, winds and temperatures aloft forecasts for two locations spaced evenly along the route, and any pertinent SIGMET forecasts. If these weather reports and forecasts are not desired, please contact the GDC to disable this service for flight plans uplinked via VHF and/or satellite.

Automatic Position Reporting

Enabling automatic position reporting allows the AFIS DMU to automatically send position reports to the GDC at a specified interval, normally every 15 minutes. These position reports serve two functions. First, in order for the GDC to send an uplink to an aircraft, the position of the aircraft must have been updated within the preceding 15 minutes. Any manual downlink from the DMU, such as a flight plan request or message, includes the aircraft position, which allows the GDC to respond immediately with the

corresponding uplink. If the position of the aircraft is updated only from these irregular manual downlinks, however, periods may exist when the GDC cannot send an unsolicited uplink message, such as an oceanic clearance, because the last known position of the aircraft is no longer current.

The GDC therefore recommends enabling automatic position reports with a 15 minute interval in order to regularly provide the GDC with the current position of the aircraft. Automatic position reports may also be enabled with a longer interval or be disabled completely in order to reduce datalink transmission costs, although the GDC would not be able to send an unsolicited uplink message to the aircraft during any period 15 minutes after the last downlink is received. If the GDC cannot send an unsolicited uplink message to an aircraft, the message is stored for up to seven days or until a downlink is received from the aircraft providing its current position, which then allows the stored message to be sent.

Second, automatic position reports, as well as reports for all other downlinks, are accessible through AFISCOM Express software in both text and graphic form. These flight following reports allow users to track aircraft progress and review previous flights from the ground. Please refer to the AFISCOM Express User's Guide for instructions regarding obtaining and displaying flight following reports and also to the appropriate sections of this guide for instructions specific to each FMS regarding automatic position reporting.

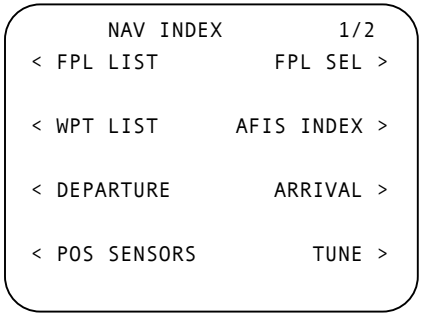
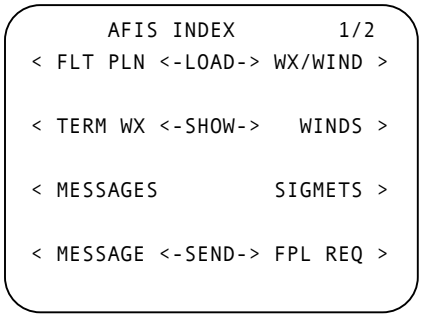
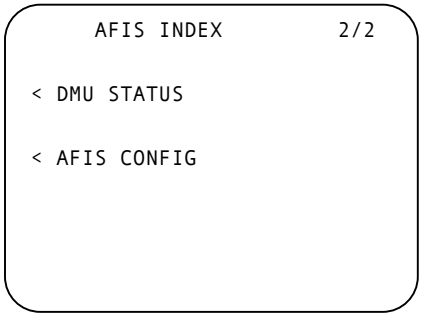
Automatic Terminal Weather Updating

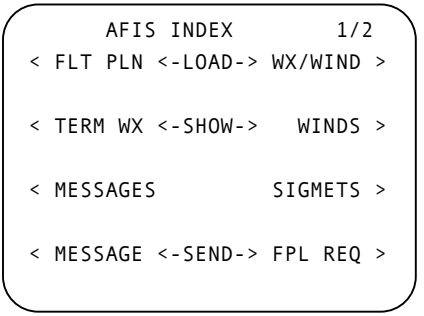
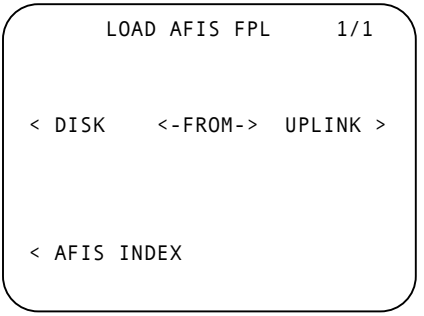
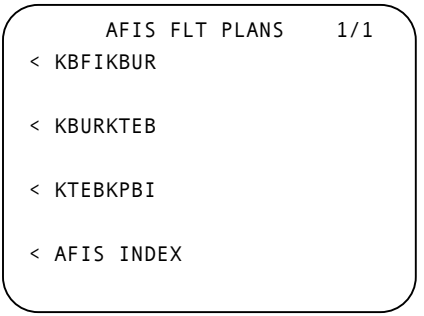
With automatic terminal weather updating enabled, the GDC sends to the aircraft all hourly terminal weather reports and forecasts for requested airports at approximately 15 minutes after each hour. To enable this service, select automatic terminal weather updating in the AFIS configuration pages. Then enter the desired airport identifiers on the terminal weather page and send the request. To disable this service, deselect automatic terminal weather updating in the AFIS configuration pages. Then return to the terminal weather page and send the request again to inform the GDC to stop sending updated terminal weather. Automatic position reporting must also be enabled for automatic terminal weather updating to function properly. Please refer to the appropriate sections of this guide for instructions specific to each FMS.

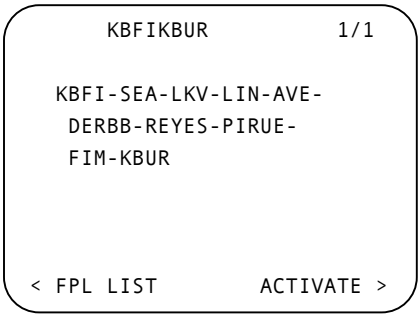
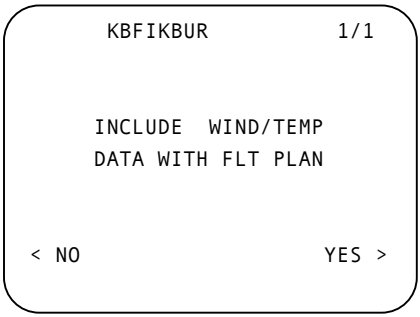
Test Messages

To verify datalink system operation, test messages may be sent to the GDC. From the appropriate AFIS message page, enter TEST in the address field and then send the message. An automated reply will be sent to the aircraft indicating that the GDC received the test message.

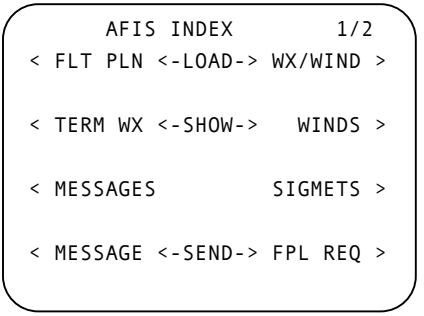
Honeywell FMS Procedures

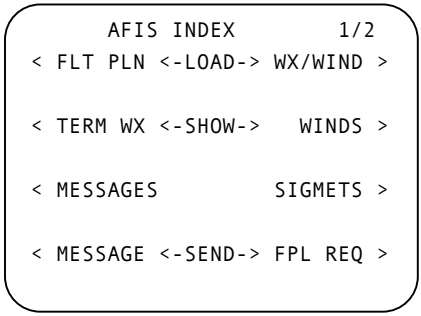
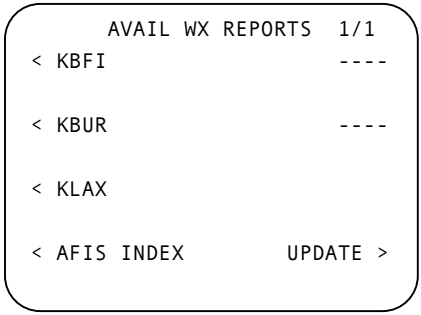
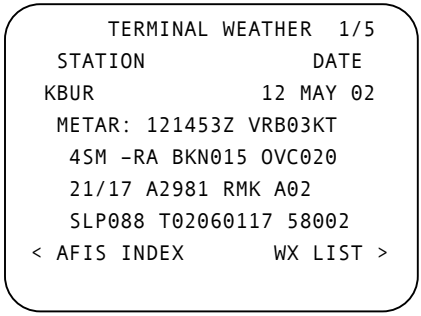
H.1	**AFIS Index**
H.1.1	Press the NAV function key to access NAV INDEX 1/2 and then line select AFIS INDEX to access AFIS INDEX 1/2. 
H.1.2	From AFIS INDEX 1/2, press the NEXT function key to access AFIS INDEX 2/2. 
H.1.3	From the AFIS INDEX pages, select each AFIS function with the corresponding line select key. 

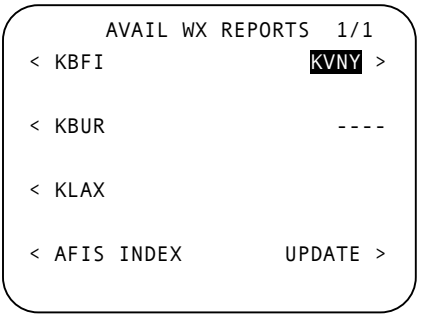
H.2	**Load From Disk: Flight Plans**
H.2.1	From AFIS INDEX 1/2, line select FLT PLN. 
H.2.2	Insert a disk with AFIS flight plan(s) into the Data Loader (DL) and then line select DISK. 
H.2.3	After the flight plans on the disk are listed, line select the desired flight plan. 

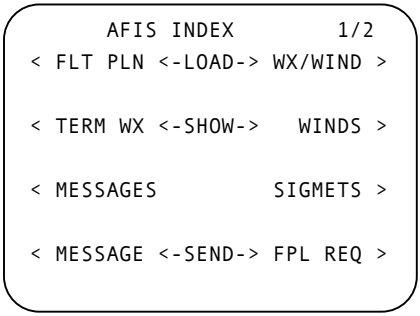
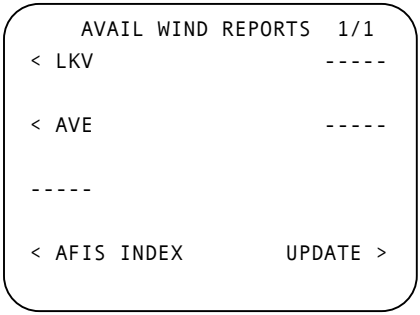
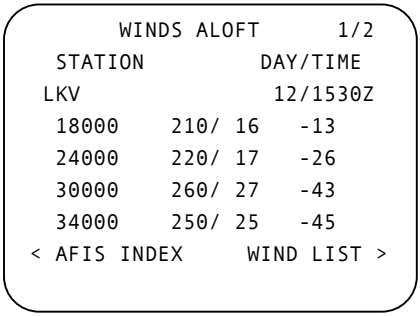
H.2.4	Line select ACTIVATE to activate the displayed flight plan or line select FPL LIST to return to the list of flight plans. 
H.2.5	After line selecting ACTIVATE, line select YES to also load the predicted wind and temperature data for each waypoint of the flight plan. 
Note – Gulfstream IV, IV-SP, and G400 aircraft with the Honeywell Performance Computer (PZ) and aircraft with less than Honeywell FMS software version 5.2 cannot load the predicted wind and temperature data for each waypoint of the flight plan.	

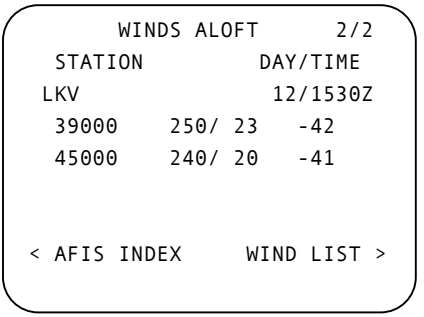
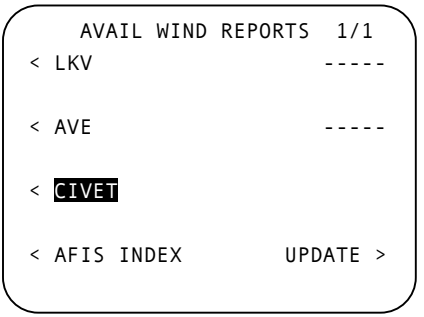
H.3	**Load From Disk: Weather and Winds**
H.3.1	The GDC no longer provides text weather reports and forecasts on disk.

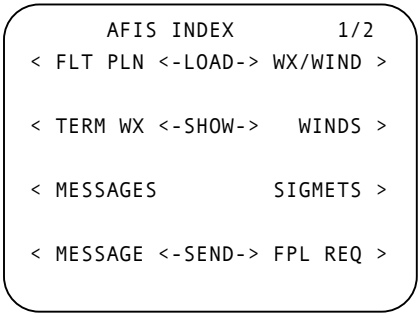
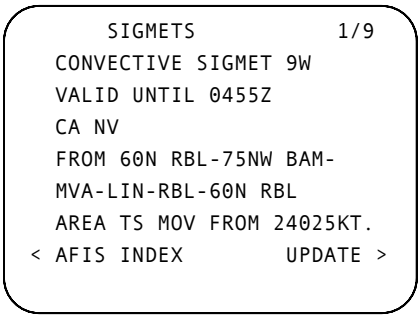
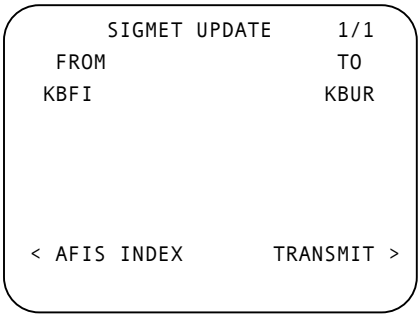


H.4	**Terminal Weather**
H.4.1	From AFIS INDEX 1/2, line select TERM WX. 
H.4.2	Line select the desired airport to view terminal weather for that airport. To update terminal weather for all listed airports, line select UPDATE. 
H.4.3	Press the NEXT and PREV function keys to move through the terminal weather pages, or line select WX LIST to return to the list of airports. 

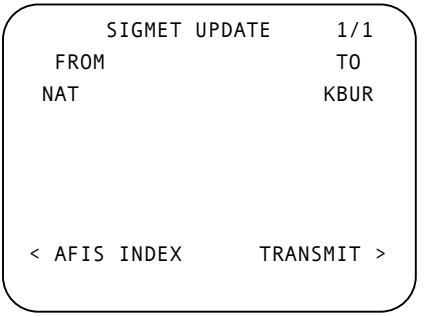
H.4.4	To add to or change the airports listed, enter and line select into the list the desired airport identifiers, then line select UPDATE. Until updated terminal weather has been requested and received, the new airport identifiers display in inverse video. 
Note – To enable automatic terminal weather updating, refer to procedure H.14, Modify AFIS Configuration: Automatic Terminal Weather Updating.	

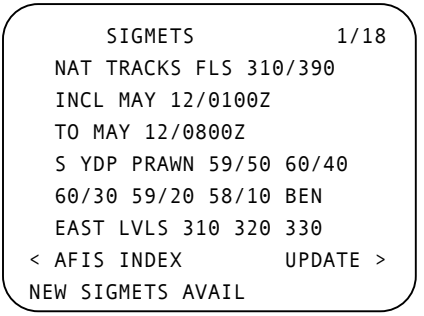
H.5	**Winds Aloft**
H.5.1	From AFIS INDEX 1/2, line select WINDS. 
H.5.2	Line select the desired location to view the winds aloft for that location. To update the winds aloft for all listed locations, line select UPDATE. 
H.5.3	Press the NEXT function key to view the second page of winds aloft data. 

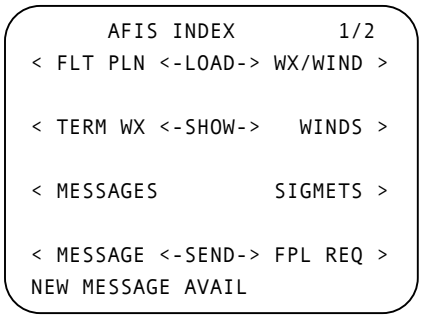
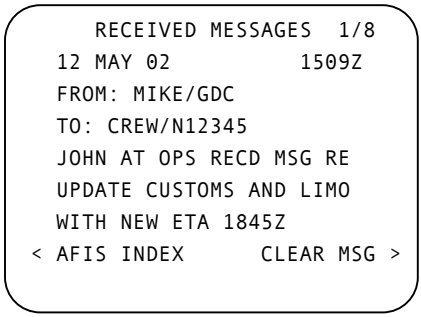
H.5.4	Line select WIND LIST to return to the list of winds aloft reports. 
H.5.5	To add to or change the locations listed, enter and line select into the list the desired location, then line select UPDATE. Valid locations include airports, navaids, and charted waypoints. For NDB locations, add an 'NB' suffix. Until updated winds aloft reports have been requested and received, the new locations display in inverse video. 

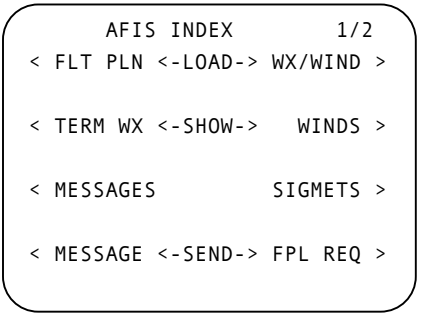
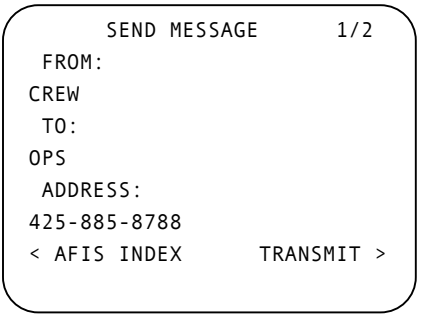
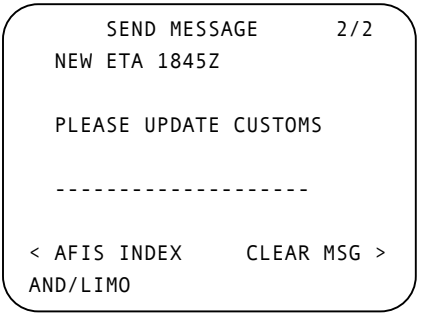
H.6	**SIGMETs and NAT Track Messages**
H.6.1	From AFIS INDEX 1/2, line select SIGMETS. 
H.6.2	Press the NEXT and PREV function keys to move through the SIGMET pages, or line select UPDATE to update or modify the displayed SIGMETs. 
H.6.3	Verify the departure and destination airports, or enter and line select to the correct field the desired airport identifiers. Then line select TRANSMIT to send the request. 

Note – To request the NAT Track Message, enter NAT (for all tracks), NATE (eastbound tracks only), or NATW (westbound tracks only) at the FROM field on the SIGMET UPDATE page and then line select TRANSMIT. When the message NEW SIGMETS AVAIL displays on the scratchpad, return to the SIGMETS page to view the updated NAT Track Message.

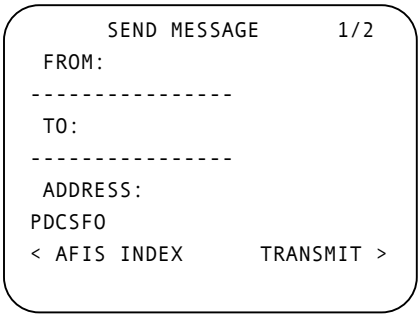




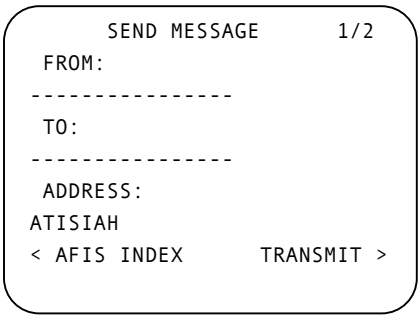
H.7	**Received Messages**
H.7.1	When a new message is received, NEW MESSAGE AVAIL will display on the scratchpad. From AFIS INDEX 1/2, line select MESSAGES. 
H.7.2	Press the NEXT and PREV function keys to move through the message pages, or line select CLEAR MSG to delete the message. 
Note – A maximum of 99 messages may be stored.	
Note – On the RECEIVED MESSAGES pages, the numbers displayed in the upper right hand corner of the CDU screen are message numbers, not page numbers.	

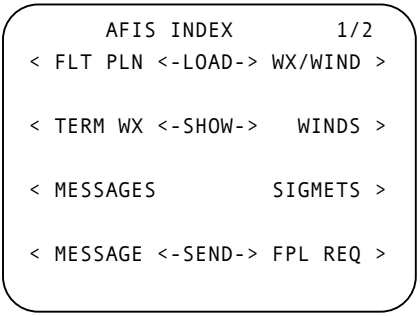
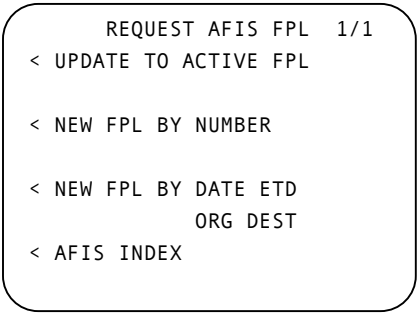
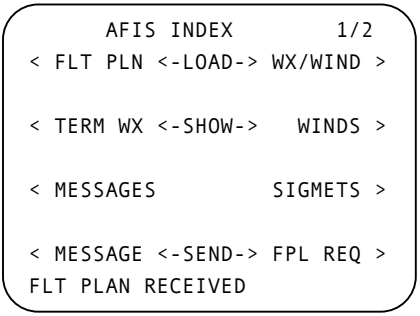
H.8	**Send Message, PDCs, and D-ATIS**
H.8.1	From AFIS INDEX 1/2, line select MESSAGE. 
H.8.2	Enter and line select the appropriate information at the FROM, TO, and ADDRESS fields. Please refer to page 6 for a list of possible message recipient addresses. Press the NEXT function key to access the SEND MESSAGE 2/2 page. 
H.8.3	Enter and line select to the correct line the message text. Use the / character to enter a space. Press the PREV function key to return to the SEND MESSAGE 1/2 page and then line select TRANSMIT to send the message. 

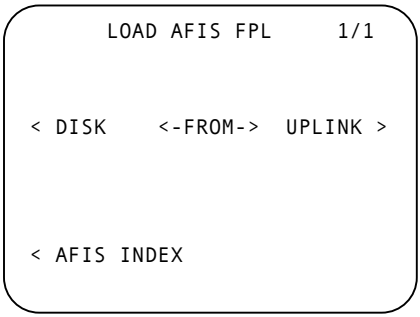
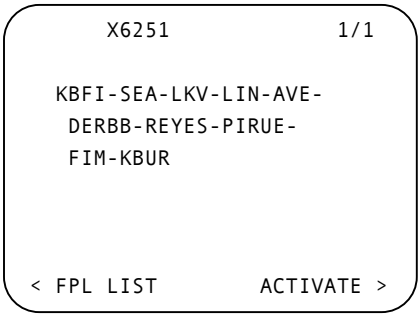
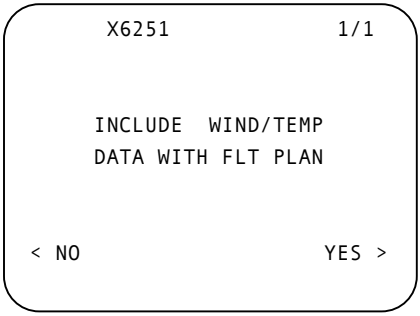
Note – To request a PDC departing San Francisco International Airport, for example, send a message with the text PDCSFO in the address field. Please refer to page 7 for more information regarding PDCs and to Appendix A for a list of PDC airports.

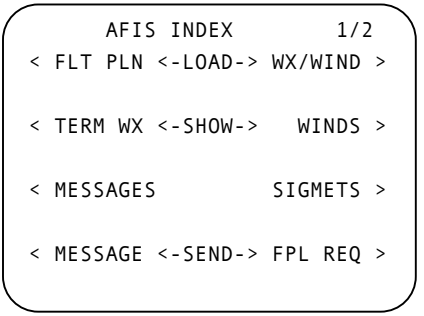
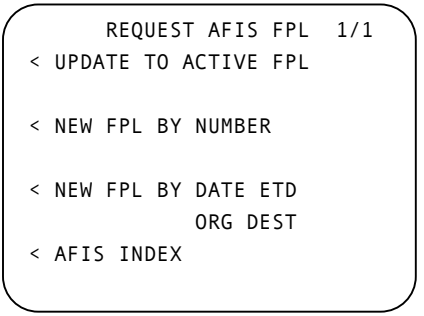
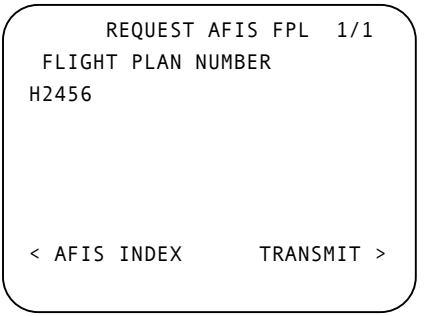


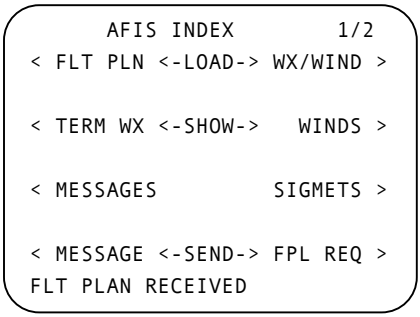
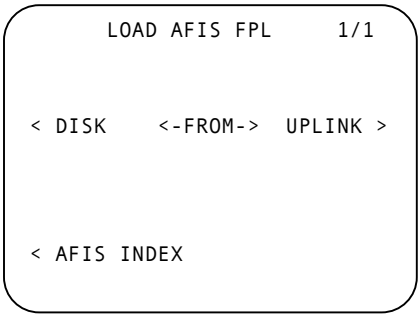
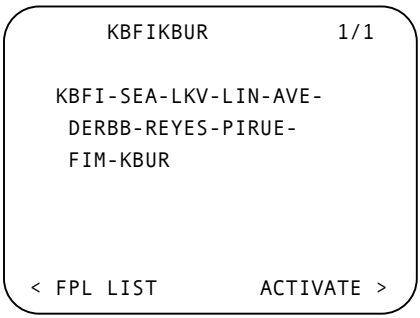
Note – To request a D-ATIS report for George Bush Intercontinental Airport, for example, send a message with the text ATISIAH in the address field. Please refer to page 9 for a list of air traffic services addresses and to Appendix A for a list of air traffic services airports.

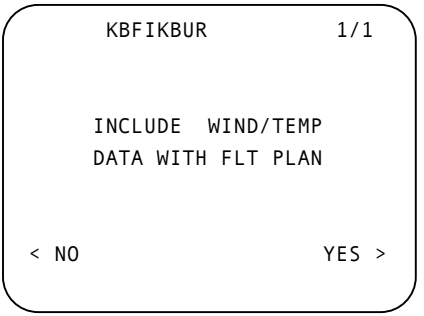


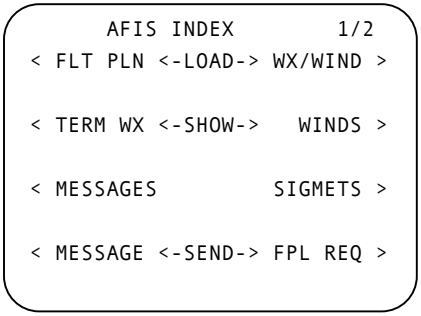
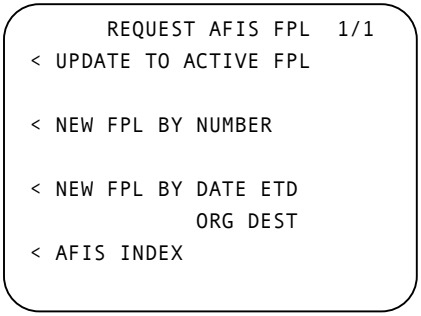
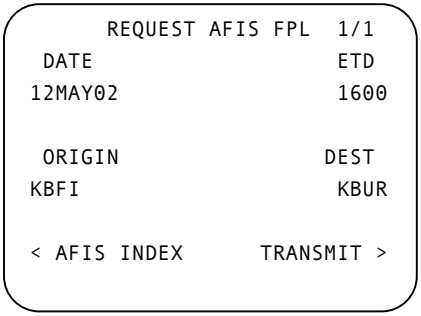
H.9	**Flight Plan Request: Update Active Flight Plan**
H.9.1	From AFIS INDEX 1/2, line select FPL REQ. 
H.9.2	Line select UPDATE TO ACTIVE FPL to request the GDC to update the active flight plan based on the current winds and temperatures aloft forecast. 
Note – NO ACTIVE FPL will display on the scratchpad if there is no active flight plan in the FMS.	
H.9.3	When the message FLT PLAN RECEIVED displays on the scratchpad, line select FLT PLN from AFIS INDEX 1/2. 

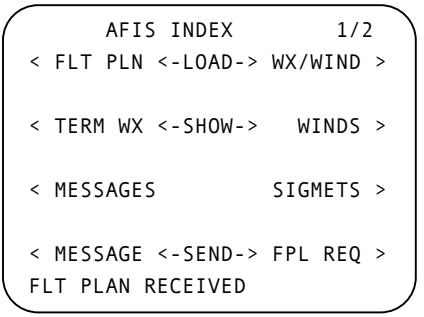
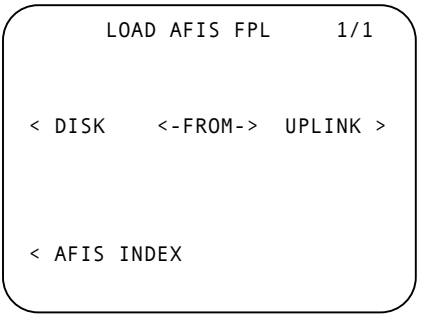
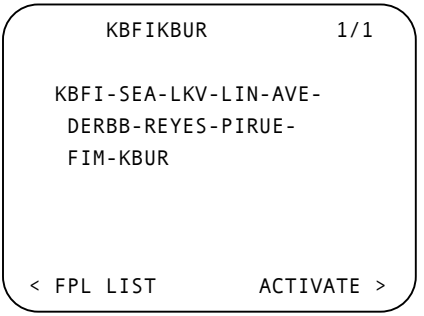
H.9.4	Line select UPLINK to load the updated flight plan. 
H.9.5	Line select ACTIVATE to activate the updated flight plan. The updated flight plan displays a temporary flight plan recall number. 
H.9.6	After line selecting ACTIVATE, line select YES to also load the predicted wind and temperature data for each waypoint of the flight plan. 
Note – Gulfstream IV, IV-SP, and G400 aircraft with the Honeywell Performance Computer (PZ) and aircraft with less than Honeywell FMS software version 5.2 cannot load the predicted wind and temperature data for each waypoint of the flight plan.	

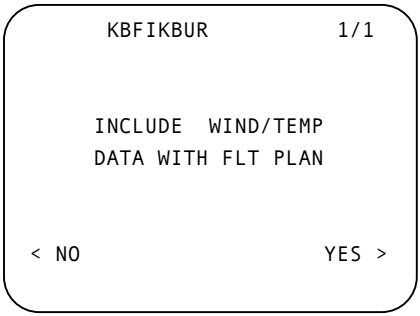
H.10	**Flight Plan Request: By Recall Number**
H.10.1	From AFIS INDEX 1/2, line select FPL REQ. 
H.10.2	Line select NEW FPL BY NUMBER. 
H.10.3	Enter and line select to the FLIGHT PLAN NUMBER field the five character flight plan recall number. Line select TRANSMIT to send the recall request. 

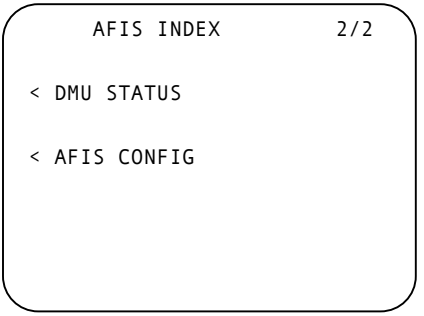
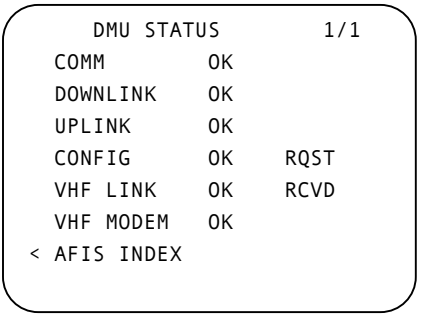
H.10.4	When the message FLT PLAN RECEIVED displays on the scratchpad, line select FLT PLN from AFIS INDEX 1/2. 
H.10.5	Line select UPLINK to load the received flight plan. 
Note – If UPLINK is selected but no flight plan has been received, NO UPLINK FPL AVAIL will display in the scratchpad and the REQUEST AFIS FPL page will display. If UPLINK is selected and a flight plan has been received, the flight plan will display and may be activated. To avoid confusion, flight plans via uplink should be requested directly from the REQUEST AFIS FPL page and then loaded from the LOAD AFIS FPL page.	
H.10.6	Line select ACTIVATE to activate the flight plan. 

H.10.7	After line selecting ACTIVATE, line select YES to also load the predicted wind and temperature data for each waypoint of the flight plan. 
Note – Gulfstream IV, IV-SP, and G400 aircraft with the Honeywell Performance Computer (PZ) and aircraft with less than Honeywell FMS software version 5.2 cannot load the predicted wind and temperature data for each waypoint of the flight plan.	

H.11	**Flight Plan Request: By Date, ETD, Origin, and Destination**
H.11.1	From AFIS INDEX 1/2, line select FPL REQ. 
H.11.2	Line select NEW FPL BY DATE ETD ORG DEST. 
H.11.3	Enter and line select to the DATE (DDMMMYY), ETD (HHMM), ORIGIN, and DEST fields the required information. Line select TRANSMIT to send the recall request. 

H.11.4	When the message FLT PLAN RECEIVED displays on the scratchpad, line select FLT PLN from AFIS INDEX 1/2. 
H.11.5	Line select UPLINK to load the received flight plan. 
Note – If UPLINK is selected but no flight plan has been received, NO UPLINK FPL AVAIL will display in the scratchpad and the REQUEST AFIS FPL page will display. If UPLINK is selected and a flight plan has been received, the flight plan will display and may be activated. To avoid confusion, flight plans via uplink should be requested directly from the REQUEST AFIS FPL page and then loaded from the LOAD AFIS FPL page.	
H.11.6	Line select ACTIVATE to activate the flight plan. 

H.11.7	After line selecting ACTIVATE, line select YES to also load the predicted wind and temperature data for each waypoint of the flight plan. 
Note – Gulfstream IV, IV-SP, and G400 aircraft with the Honeywell Performance Computer (PZ) and aircraft with less than Honeywell FMS software version 5.2 cannot load the predicted wind and temperature data for each waypoint of the flight plan.	

H.12	DMU Status
H.12.1	From AFIS INDEX 2/2, line select DMU STATUS to display the DMU STATUS page. 
H.12.2	The DMU STATUS page will also automatically display after sending a message, weather request, or flight plan request. RQST RCVD is an automatic acknowledgement from the GDC that the message or request has been received and is being processed. 

Note – FAIL messages indicate the following:

COMM: The AFIS DMU is unable to establish contact with a VHF station or satellite.

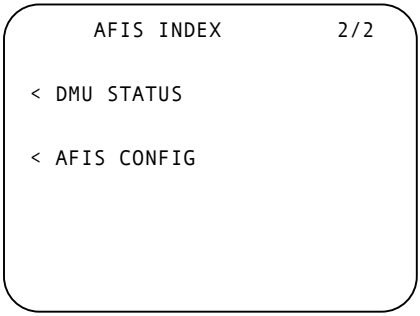
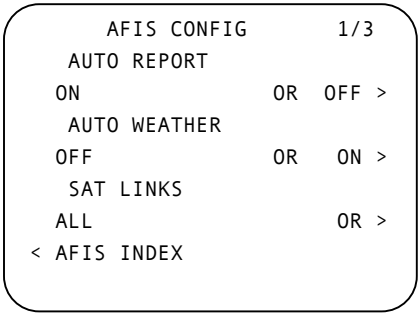
DOWNLINK: Transient communications failure. Retransmit the request or message.

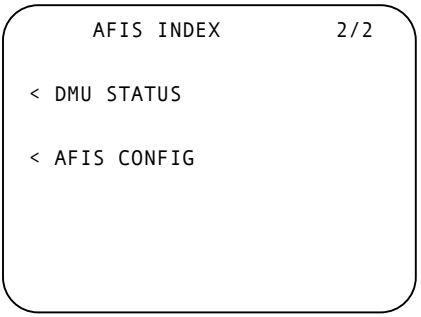
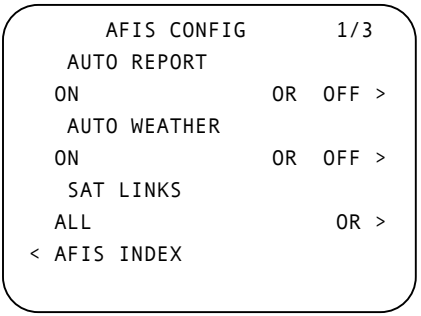
UPLINK: Transient communications failure. Retransmit the request or message.

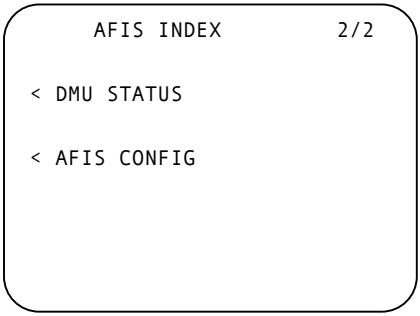
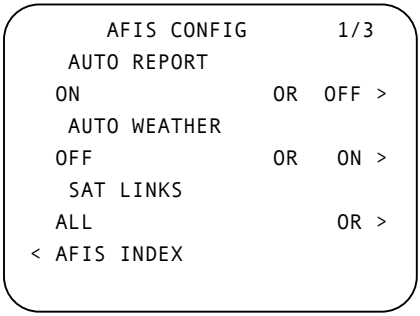
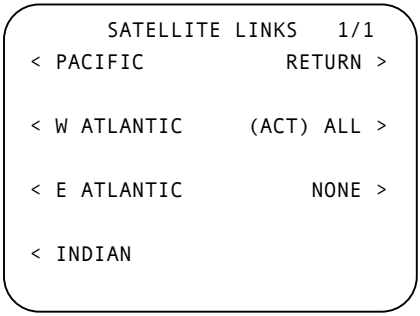
CONFIG: AFIS DMU configuration module requires maintenance.

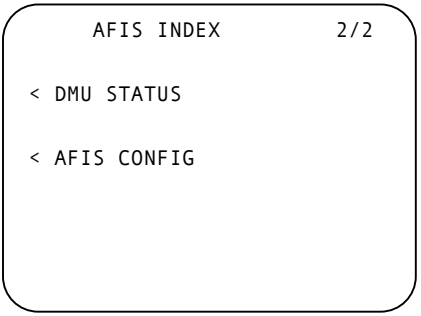
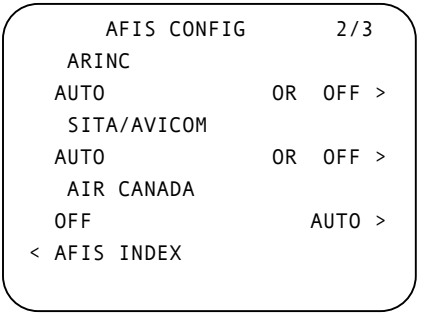
VHF LINK: VHF networks disabled or voice communication system is using shared VHF antenna.

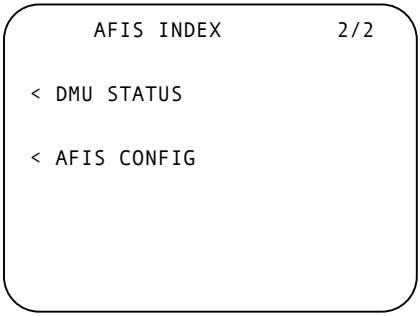
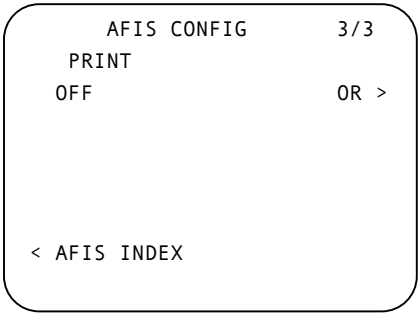
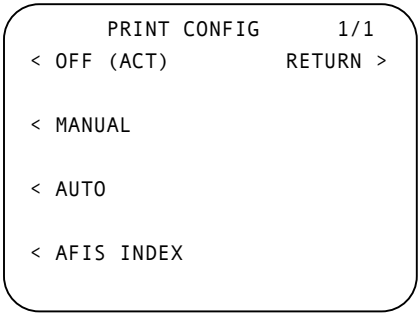
VHF MODEM: AFIS DMU transceiver requires maintenance.

H.13	**AFIS Configuration: Automatic Position Reporting**
H.13.1	From AFIS INDEX 2/2, line select AFIS CONFIG. 
H.13.2	From AFIS CONFIG 1/3, line select AUTO REPORT to enable/disable automatic position reporting. 
Note – The GDC generally recommends enabling automatic position reporting. Please refer to page 9 for more information regarding automatic position reporting.	

H.14	**AFIS Configuration: Automatic Terminal Weather Updating**
Note – With this service enabled, the GDC sends to the aircraft all hourly terminal weather reports and forecasts for requested airports at approximately 15 minutes after each hour. To enable automatic terminal weather updating, select AUTO WEATHER to ON. Then enter the desired airport identifiers on the AVAIL WX REPORTS page and line select UPDATE. To disable automatic weather updating, select AUTO WEATHER to OFF. Then return to the AVAIL WX REPORTS page and line select UPDATE again to inform the GDC to stop sending updated terminal weather. Automatic position reporting must also be enabled for automatic terminal weather updating to function properly.	
H.14.1	From AFIS INDEX 2/2, line select AFIS CONFIG. 
H.14.2	From AFIS CONFIG 1/3, line select AUTO WEATHER to enable/disable automatic terminal weather updating. 

H.15	**AFIS Configuration: Satellite Links**
H.15.1	From AFIS INDEX 2/2, line select AFIS CONFIG. 
H.15.2	Line select SAT LINKS. 
H.15.3	Line select the desired satellite link option. 
Note – The GDC generally recommends against selecting one specific satellite. If satellite functionality is desired select ALL; if no satellite functionality is desired, select NONE.	

H.16	AFIS Configuration: VHF Networks
H.16.1	From AFIS INDEX 2/2, line select AFIS CONFIG. 
H.16.2	Press the NEXT function key to access AFIS CONFIG 2/3, then line select each VHF network to enable/disable the network. 
Note – The ARINC and SITA/AVICOM options should be selected to AUTO to allow the AFIS DMU to automatically switch to the appropriate network. The AIR CANADA option (if displayed) should be selected to OFF because the Air Canada network has been decommissioned.	

H.17	**AFIS Configuration: Print Configuration**
H.17.1	From AFIS INDEX 2/2, line select AFIS CONFIG. 
H.17.2	Press the NEXT function key twice to access AFIS CONFIG 3/3, then line select the OR option. 
H.17.3	Line select the desired printing option. 

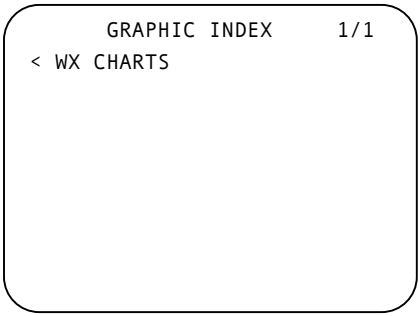
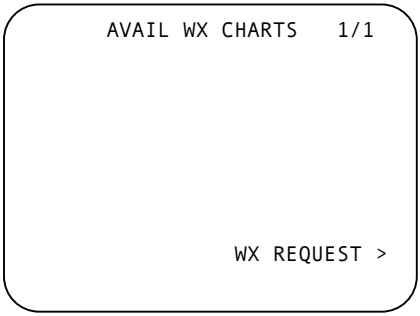
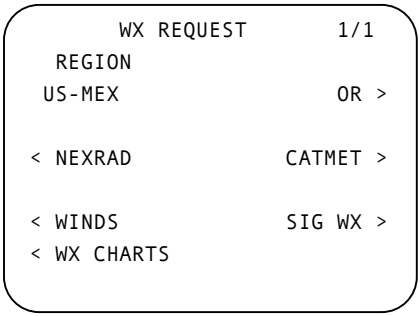
Note – Selecting MAN will add a PRINT line select option to all pages that may be printed, as shown below.

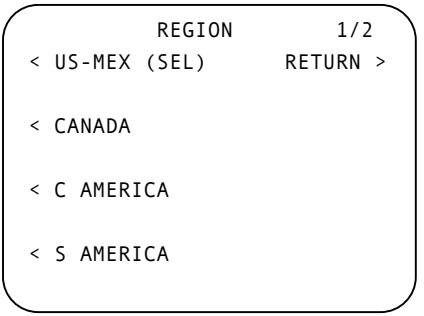
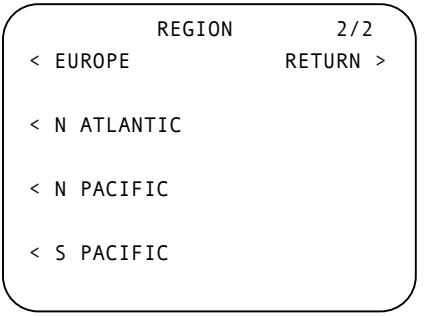
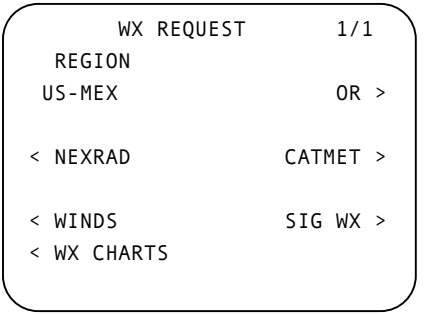
```
      TERMINAL WEATHER  1/5
  STATION    DATE    PRINT >
 KBUR     12 MAY 02
  METAR: 121453Z VRB03KT
   4SM –RA BKN015 OVC020
   21/17 A2981 RMK A02
   SLP088 T02060117 58002
< AFIS INDEX       WX LIST >
```

Note – Selecting AUTO will access two additional pages that allow selection of which items are to be automatically printed, as shown below.

```
    AUTO PRINT CONFIG  1/2
  RCVD MSG
 ON               OR  OFF >
  WINDS ALOFT
 ON               OR  OFF >
  TERMINAL WX
 ON               OR  OFF >
                   RETURN >
```

```
    AUTO PRINT CONFIG  2/2
  SEND MSG
 ON               OR  OFF >
  SIGMETS
 ON               OR  OFF >
  FLT PLAN
 ON               OR  OFF >
                   RETURN >
```

H.18	Weather Graphics
Note – Weather graphics via datalink are available to an upgraded AFIS DMU interfaced with a Honeywell FMZ-2000 series FMS with 6.0 (or greater) software and the CD-820 Control Display Unit (CDU).	
H.18.1	Press the GRAPHIC function key on the CD-820 to display GRAPHIC INDEX 1/1. 
H.18.2	Line select WX CHARTS to display AVAIL WX CHARTS 1/1, which lists received weather graphics. 
H.18.3	Line select WX REQUEST to display WX REQUEST 1/1. The default region for weather graphics is US-MEX (United States and Mexico). 

H.18.4	If US-MEX is not the desired region, line select OR to display REGION 1/2. Line select the desired region to return to WX REQUEST 1/1. 
H.18.5	Alternately, press the NEXT function key to display REGION 2/2. Line select the desired region to return to WX REQUEST 1/1. 
H.18.6	With the desired region selected, line select NEXRAD, CATMET, WINDS, or SIG WX as desired. 

Note – Depending on the selected region, weather graphics available from the GDC include the following.

NEXRAD weather graphics are available for the continental United States in two resolutions: 64 km^2 resolution for national and regional graphics and 8 km^2 resolution for regional, 100 NM, and 200 NM graphics. Unshaded blocks indicate no precipitation to light mist, green blocks indicate light rain, yellow blocks indicate moderate rain and moderate thunderstorm activity, and red blocks indicate heavy rain and heavy thunderstorm activity. Cell altitude and movement are also displayed if a SIG WX weather graphic has been received.

CATMET (categorical METAR) weather graphics are available worldwide and are similar to weather depiction charts, but are based on METAR data instead. Each reporting airport is represented by a block, with an uncolored block indicating VFR conditions (greater than 3000' ceiling and 5 NM visibility), a green block indicating MVFR conditions (between 1000' and 3000' ceiling and between 3 NM and 5 NM visibility), a yellow block indicating IFR conditions (between 500' and 1000' ceiling and between 1 NM and 3 NM visibility), and a red block indicating LIFR conditions (less than 500' ceiling and 1 NM visibility). If significant weather (wind greater than 20 knots, wind greater than 10 knots with gusts, temperature within 5°C of freezing, or temperature/dewpoint spread less than 5°C) exists, a brown dot is placed in the center of the block.

SIG WX (significant weather) weather graphics include turbulence, icing, radar cell tops, fronts, jetstreams, and convective information in the continental United States.

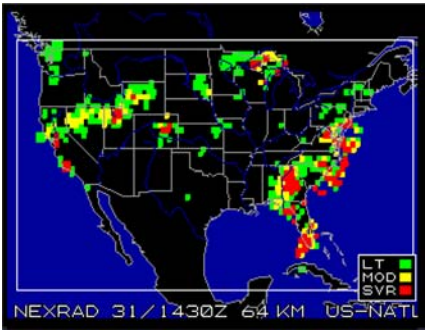
WINDS (winds aloft forecasts) weather graphics are available for the continental United States and Canada at 6,000' MSL, 12,000' MSL, FL180, FL240, FL300, FL340, and FL390. On the wind direction lines, a short barb indicates 5 knots, a long barb indicates 10 knots, and a triangular barb indicates 50 knots.

H.18.7	If NEXRAD is selected, NEXRAD AREA 1/1 displays in order to select the desired area(s). Line select the desired area(s), which places a SEL (selected) indicator next to each area, and then line select RETURN. NEXRAD AREA 1/1 < US NATL RETURN > < NW NE > < NC (SEL) SC > < SW (SEL) SE >

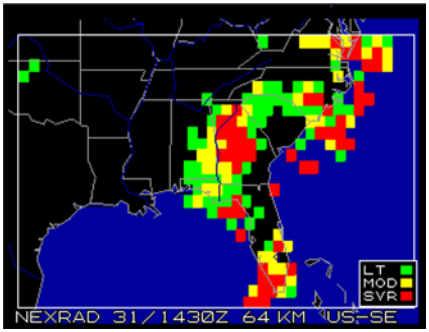
*Note – To deselect an area, press the DEL function key to display *DELETE* in the scratchpad and then line select the area.*

Note – Unless the 64 km^2 resolution NEXRAD weather graphic for the entire United States (US NATL) is desired, the GDC strongly recommends requesting regional NEXRAD weather graphics in order to receive higher resolution 8 km^2 graphics, which also allows viewing at 100 NM and 200 NM scales. Please refer to the following examples and note the difference in resolution between examples 2 and 3.

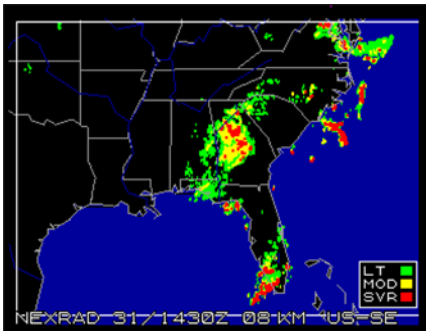
1) US NATL (64 km^2 resolution) NEXRAD:



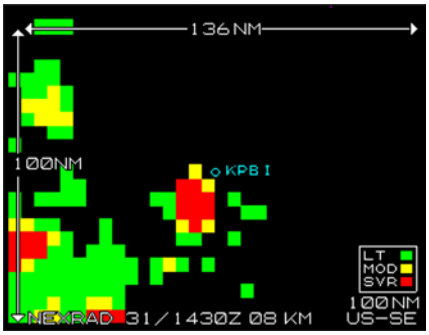
2) US NATL (64 km^2 resolution) NEXRAD viewed at SE region level:



3) SE regional (8 km^2 resolution) NEXRAD:

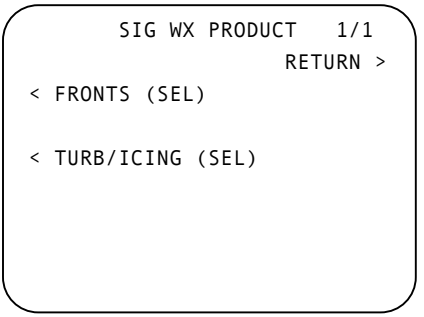
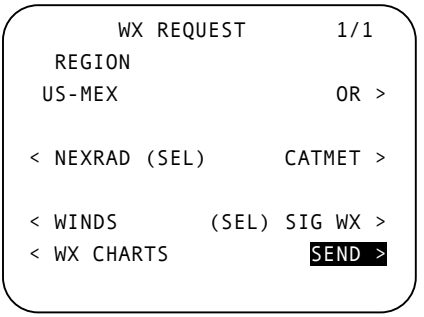


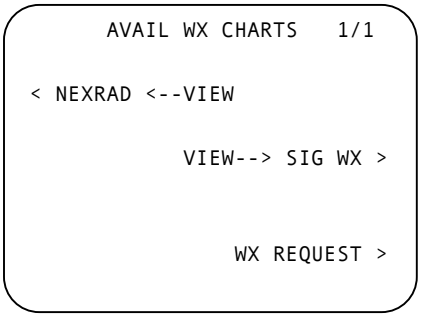
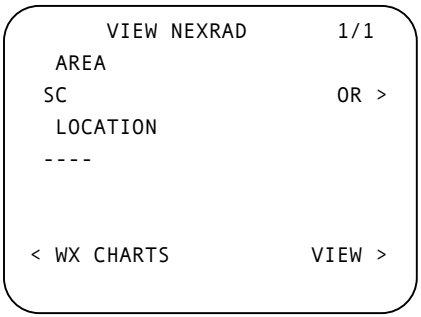
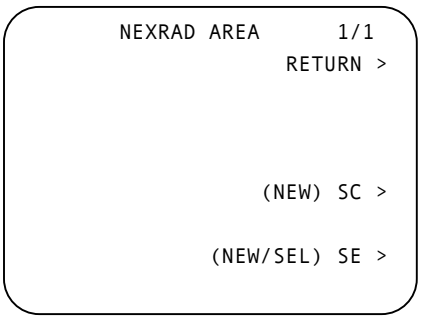
4) SE regional (8 km^2 resolution) NEXRAD viewed at 100 NM scale centered on KPBI:

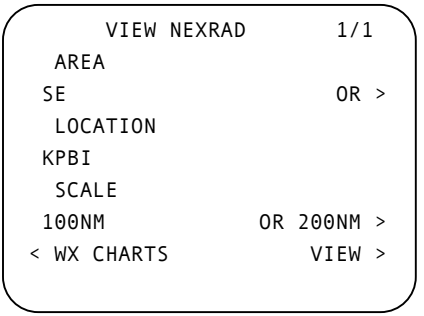
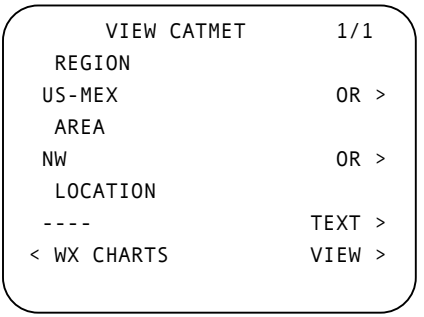


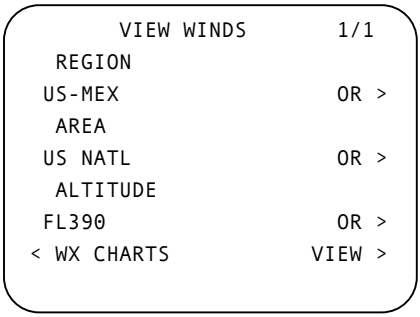
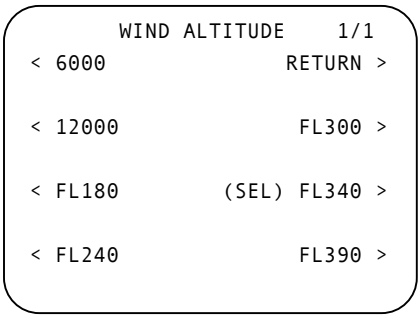
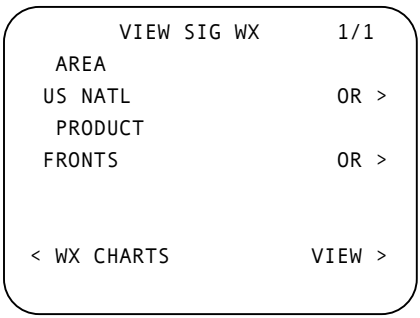
Note – CATMET weather graphics are requested directly from WX REQUEST 1/1 because no area selection is necessary.

Note – WINDS weather graphics are requested directly from WX REQUEST 1/1 because no area selection is necessary.

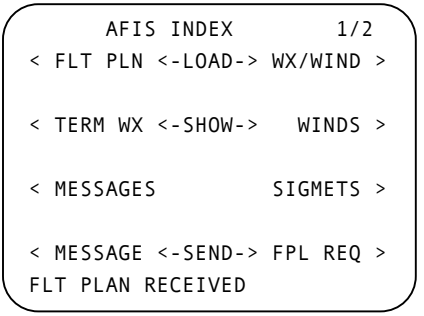
H.18.8	If SIG WX is selected, SIG WX PRODUCT 1/1 displays in order to select the desired product(s). Line select the desired products(s), which places a SEL (selected) indicator next to each product, and then line select RETURN. 
*Note – To deselect a product, press the DEL function key to display *DELETE* in the scratchpad and then line select the product.*	
H.18.9	When one or more weather graphics have been selected, SEL (selected) indicators display next to the selected weather graphics on WX REQUEST 1/1. Line select SEND to send the request to the GDC. 
*Note – To deselect a weather graphic, press the DEL function key to display *DELETE* in the scratchpad and then line select the weather graphic.*	
Note – Weather graphics may contain over 10,000 characters each. Depending on the user's subscription plan, requesting weather graphics via satellite may not be desirable.	
Note – When the requested weather graphics have been received, NEW GRAPHIC WX AVAIL displays in the scratchpad.	

H.18.10	Line select WX CHARTS to display AVAIL WX CHARTS 1/1, which lists received weather graphics. Line select the desired weather graphics. 
H.18.11	If NEXRAD is selected, VIEW NEXRAD 1/1 displays in order to select the desired area and location (if the area is a regional NEXRAD). Line select VIEW to view the weather graphic for the displayed area. 
H.18.12	If the displayed area is not the desired area, line select OR to display NEXRAD AREA 1/1. Line select the desired area, which places a SEL (selected) indicator next to the area and returns to VIEW NEXRAD 1/1. 

H.18.13	Alternately, if a regional NEXRAD weather graphic has been received, a valid navigation database identifier located in the area of the weather graphic may be entered in the LOCATION field. Line select 100NM or 200NM as the desired scale and then VIEW to view the weather graphic centered on that location at the selected scale. 
Note – If an identifier which is not located in the area of a received regional NEXRAD weather graphic is entered in the LOCATION field, NOT IN REQUESTED AREA displays in the scratchpad.	
H.18.14	If CATMET is selected, VIEW CATMET 1/1 displays in order to select the desired region, area (if the region is US-MEX), or location. VIEW CATMET functions much like VIEW NEXRAD, except that when a valid ICAO airport identifier is entered into the LOCATION field, TEXT may be line selected to view an abbreviated METAR for that airport. 
Note – If an identifier which is not a valid reporting station is entered in the LOCATION field, CATMET SITE UNAVAIL displays in the scratchpad.	

H.18.15	If WINDS is selected, VIEW WINDS 1/1 displays in order to select the desired region, area (if the region is US-MEX), and altitude. VIEW WINDS functions much like VIEW CATMET, except that the altitude may be changed by line selecting OR on the ALTITUDE line. 
H.18.16	From WIND ALTITUDE 1/1, line select the desired altitude to return to VIEW WINDS 1/1. 
H.18.17	If SIG WX is selected, VIEW SIG WX 1/1 displays in order to select the desired area and product. VIEW SIG WX functions much like VIEW WINDS, except that no altitude selection is necessary. 

H.19	AFIS System Messages
H.19.1	AFIS related system messages are displayed on the scratchpad.



Note – AFIS related system messages include the following:

FLT PLAN RECEIVED: A new flight plan has been received.

NEW MESSAGE AVAIL: A new message has been received.

NEW SIGMETS AVAIL: New SIGMETs have been received.

NEW WINDS AVAIL: New winds and temperature aloft forecast(s) have been received.

NEW WX REPORTS AVAIL: New terminal weather report(s) and forecast(s) have been received.

NEW GRAPHIC WX AVAIL: New weather graphics have been received.

NO ACTIVE FPL: There is no active FMS flight plan to be updated after line selecting UPDATE TO ACTIVE FPL on the REQUEST AFIS FPL page.

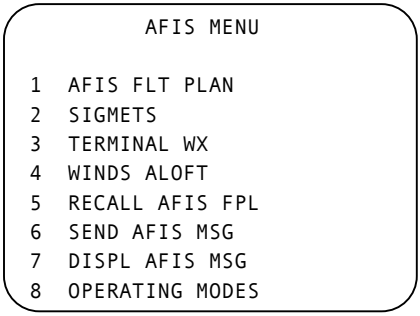
NO UPLINK FPL AVAIL: There is no uplinked flight to load after line selecting UPLINK on the LOAD AFIS FPL page. The REQUEST AFIS FPL page will display automatically.

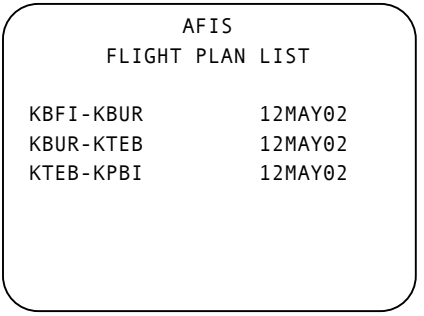
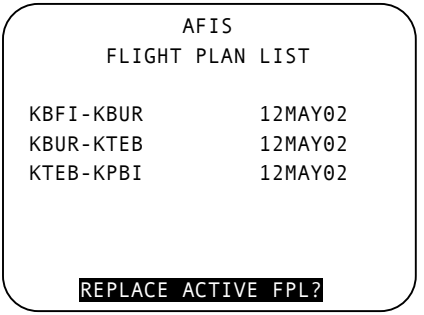
CHECK DMU: The FMS has been waiting for a flight plan from the AFIS DMU for over 30 seconds.

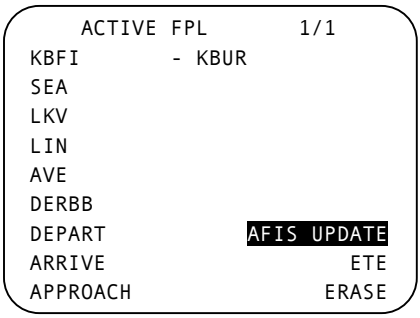
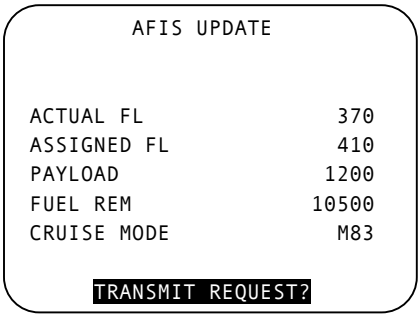
AFIS DMU FAILED: The FMS senses an AFIS DMU failure.

Global FMS Procedures

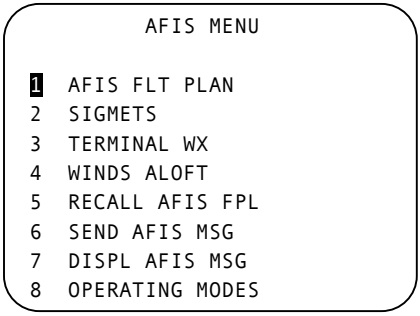
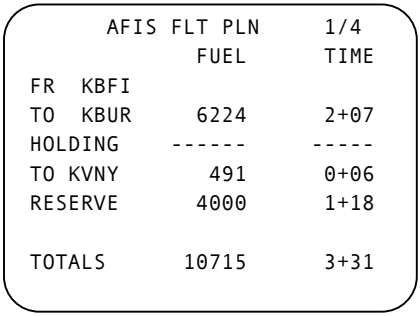
G.1	**AFIS Menu**
G.1.1	Press the AFIS function key to display the AFIS MENU page.

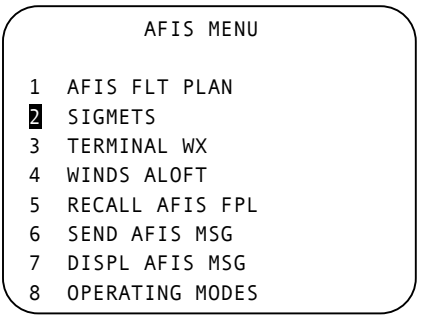
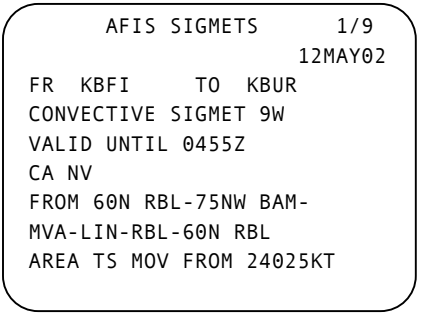
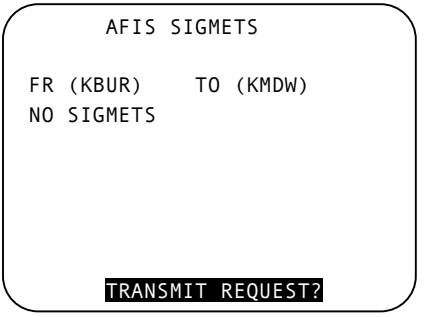


G.2	Load AFIS Flight Plan From Disk
Note – Immediately after initialization, the FMS accesses the Data Transfer Unit (DTU). One of the following messages will appear: *NO DISK: A disk was not inserted into the DTU prior to FMS initialization or the DTU cannot read the disk.* *NO AFIS FLT PLANS ON DISK: A disk is inserted and readable, but no valid AFIS flight plans are stored on the disk.* *READING DISK: The DTU is transferring data from the disk.*	
G.2.1	When a disk with AFIS flight plans is inserted into the DTU prior to FMS initialization, the AFIS FLIGHT PLAN LIST page automatically displays. To load a flight plan from disk, line select the desired flight plan and press ENTER. 
G.2.2	To load a flight plan from disk after FMS initialization, insert the disk into the DTU and then press the FPL function key to page through the active flight plan (if any) until the AFIS FLIGHT PLAN LIST page displays. Line select the desired flight plan and then press ENTER. If REPLACE ACTIVE FPL? displays, press ENTER again to activate the flight plan. 

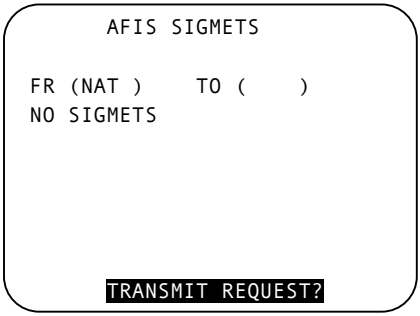
G.3	**Update Active AFIS Flight Plan**
G.3.1	To update the active flight plan, press the FPL function key to display the ACTIVE FPL page. Line select AFIS UPDATE and then press ENTER. 
G.3.2	After verifying or modifying the required information, TRANSMIT REQUEST? displays. Press ENTER to send the update request. 
Note – The MSG light on the FMS will blink when the updated flight plan is received. Press the MSG function key to view the FPL UPDATED message on the SYSTEM MESSAGES page.	

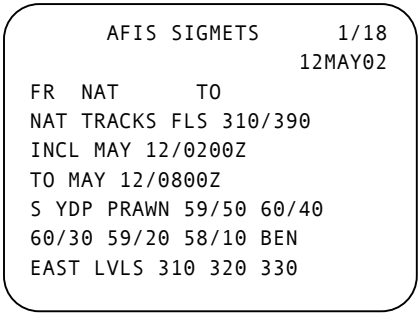
G.3.3	To activate the updated flight plan, press the FPL function key to page through the active flight plan until the AFIS FLIGHT PLAN LIST page displays. Line select the updated flight plan (UPDA displays in place of the departure airport identifier) and press ENTER. When REPLACE ACTIVE FPL? displays, press ENTER again to activate the flight plan. 

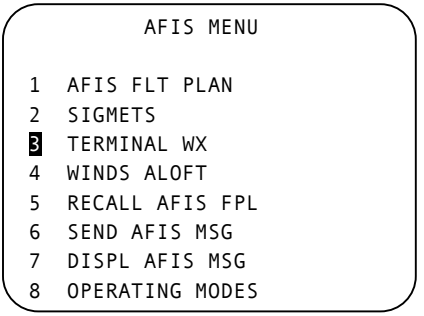
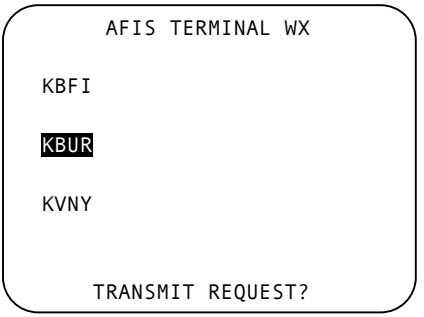
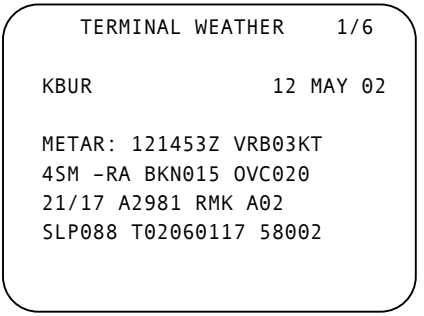
G.4	**Review AFIS Flight Plan**
G.4.1	From the AFIS MENU page, line select AFIS FLT PLAN and then press ENTER to access previously recalled or loaded AFIS flight plans. 
G.4.2	Press the NEXT and PREV function keys to move through the pages of the flight plan. 

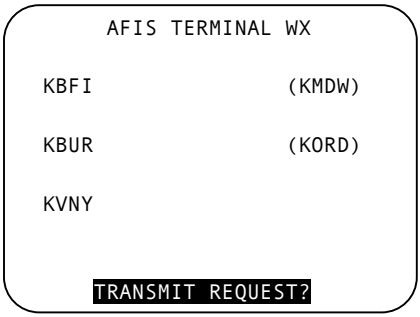
G.5	**SIGMETs and NAT Track Messages**
G.5.1	From the AFIS MENU page, line select SIGMETS and then press ENTER. 
G.5.2	Press the NEXT and PREV function keys to move through the AFIS SIGMETS pages. 
G.5.3	To update the SIGMETs, enter the desired departure and destination airports at the FR and TO fields. The new identifiers will be displayed in parentheses until the new SIGMETs are received. After entering the destination airport, press ENTER to display TRANSMIT REQUEST? Press ENTER again to send the request. 

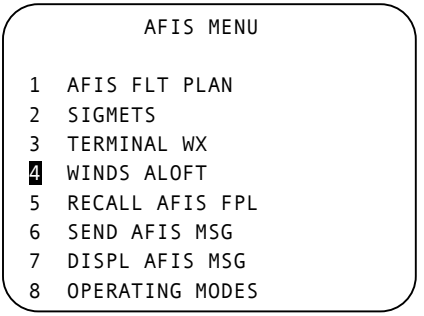
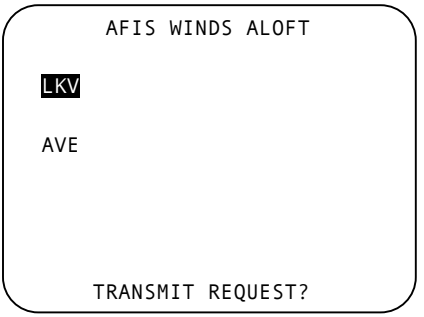
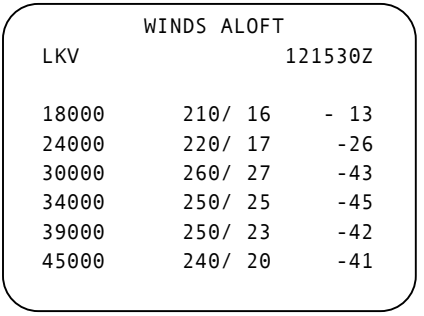
Note – To request the NAT Track Message, enter NAT (for all tracks), NATE (eastbound tracks only), or NATW (westbound tracks only) at the FR field on the AFIS SIGMETS page, press ENTER twice to highlight TRANSMIT REQUEST?, and then press ENTER again to send the request. Return to the AFIS SIGMETS page to view the updated NAT Track Message once it has been received.



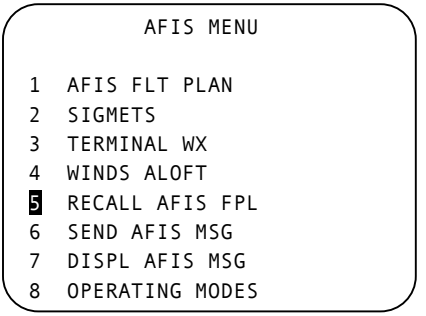
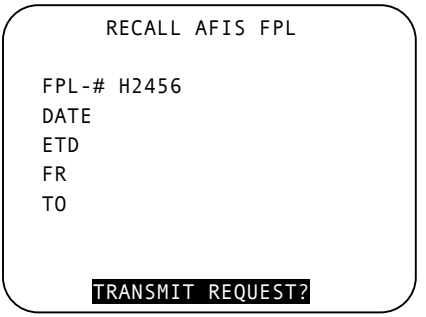
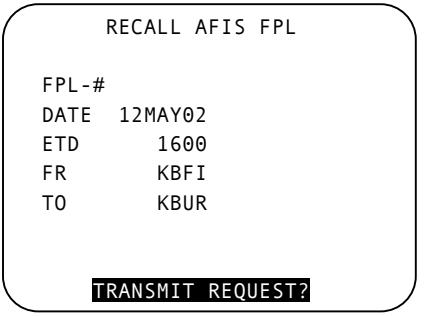


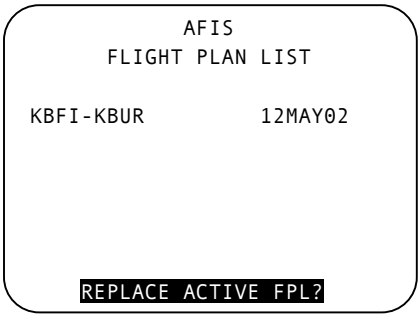
G.6	**Terminal Weather**
G.6.1	From the AFIS MENU page, line select TERMINAL WX and then press ENTER. 
G.6.2	Line select the desired airport and then press ENTER to view terminal weather for that airport. To update the terminal weather for all listed airports, line select TRANSMIT REQUEST? and then press ENTER. 
G.6.3	Press the NEXT and PREV function keys to move through the terminal weather pages, or press the BACK function key to return to the AFIS TERMINAL WX page. 

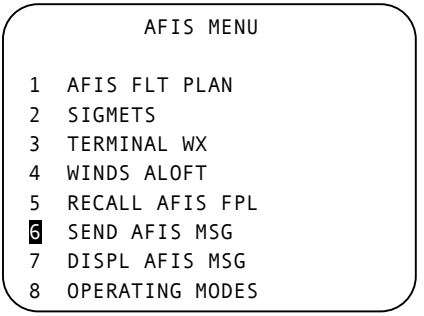
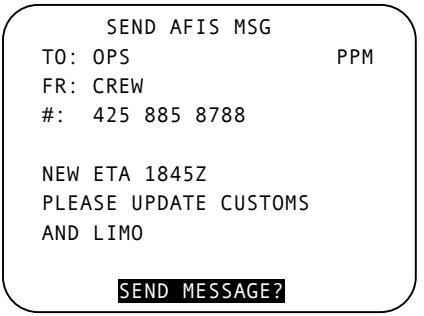
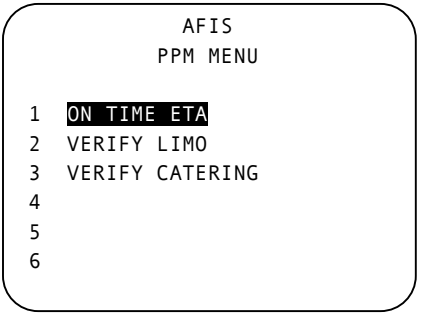
G.6.4	To add to or change the airports listed, line select and enter into the list the desired airport identifiers. Then line select TRANSMIT REQUEST? and press ENTER to send the request. Until updated terminal weather has been requested and received, the new airport identifiers display in parentheses. 
Note – To enable automatic terminal weather updating, please refer to procedure G.12, Operating Modes: Automatic Terminal Weather Updating.	

G.7	**Winds Aloft**
G.7.1	From the AFIS MENU page, line select WINDS ALOFT and then press ENTER. 
G.7.2	Line select the desired location and then press ENTER to view the winds aloft for that location. To update the winds aloft for all listed locations, line select TRANSMIT REQUEST? and then press ENTER. 
G.7.3	From the WINDS ALOFT page, press the BACK function key to return to the AFIS WINDS ALOFT page. 

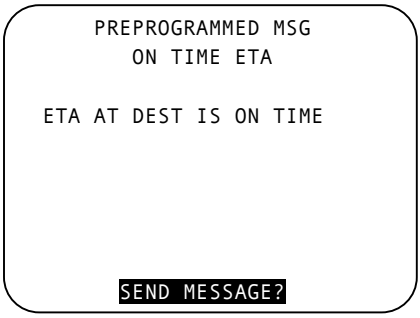
G.7.4	To add to or change the locations listed, line select and enter into the list the desired locations. Valid locations include airports, navaids, and charted waypoints. For NDB locations, add an 'NB' suffix. Then line select TRANSMIT REQUEST? and press ENTER to send the request. Until updated winds aloft have been requested and received, the new locations display in parentheses. 

G.8	**Recall AFIS Flight Plan**
G.8.1	From the AFIS MENU page, line select RECALL AFIS FPL and then press ENTER. 
G.8.2	Line select FPL-# and enter the five character flight plan recall number. Press ENTER to display TRANSMIT REQUEST? and then press ENTER again to send the flight plan recall request. 
G.8.3	Alternately, enter the required information at the DATE (DDMMYY), ETD (HHMM), FR, and TO fields. Press ENTER to display TRANSMIT REQUEST? and then press ENTER again to send the flight plan recall request. 

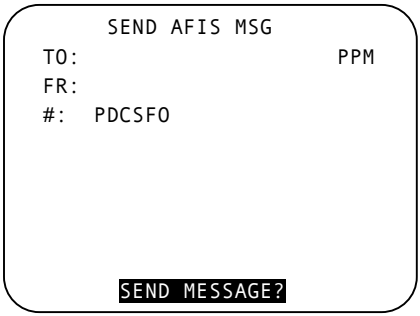
Note – The MSG light on the FMS will blink when the flight plan and associated weather is received. Press the MSG function key to view the FPL RECALLED, WX UPDATED, WINDS UPDATED, and SIGMETS UPDATED messages on the SYSTEM MESSAGES page.	
G.8.4	To activate the recalled flight plan, press the FPL function key to page through the active flight plan (if any) until the AFIS FLIGHT PLAN LIST page displays. Line select the recalled flight plan and then press ENTER. If REPLACE ACTIVE FPL? displays, press ENTER again to activate the flight plan. 

G.9	**Send AFIS Message, PDCs, and D-ATIS**
G.9.1	From the AFIS MENU page, line select SEND AFIS MSG and then press ENTER. 
G.9.2	Enter the appropriate information at the TO, FR, # (address), and message text fields. Please refer to page 6 for a list of possible message recipient addresses. Line select SEND MESSAGE? and then press ENTER to send the message. 
G.9.3	To create or modify a preprogrammed message, complete the TO, FR, and # (address) fields. Line select PPM and press ENTER to view the PPM MENU page. Then line select the desired message title and press ENTER. 

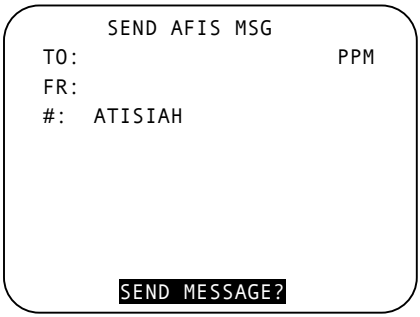
G.9.4	Up to seven lines of text may be stored. Line select SEND MESSAGE? and press ENTER to send the message.

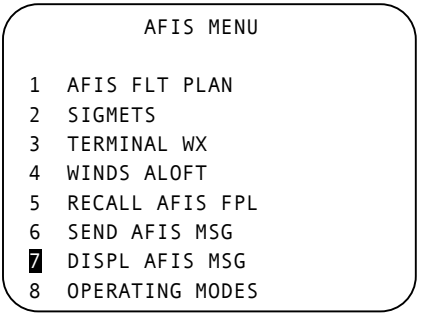
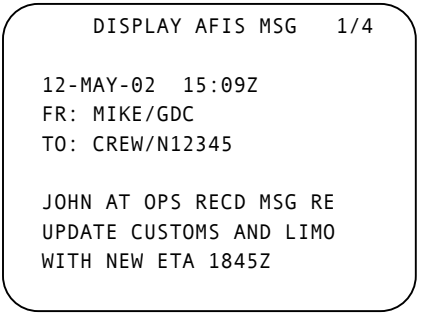


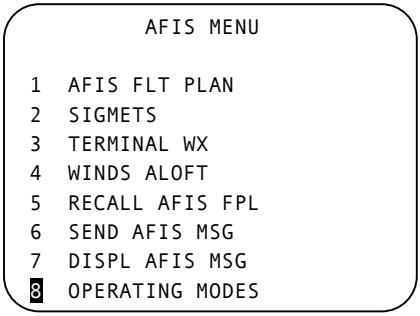
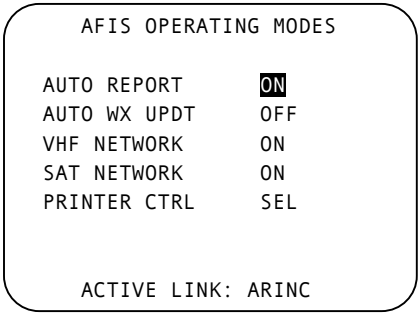
Note – To request a PDC departing San Francisco International Airport, for example, send a message with the text PDCSFO in the address field. Please refer to page 7 for more information regarding PDCs and to Appendix A for a list of PDC airports.

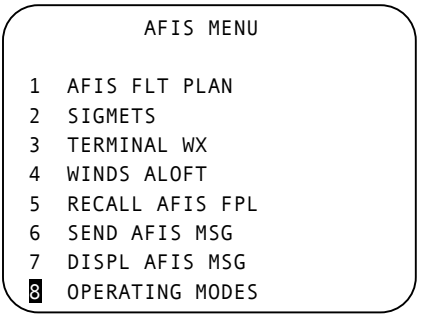
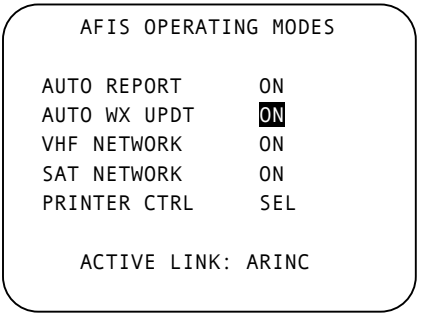


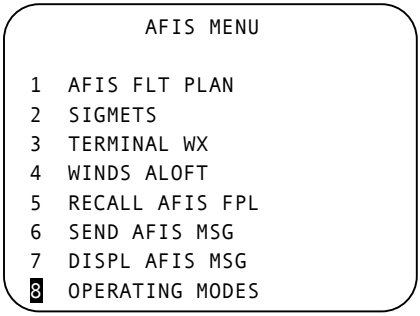
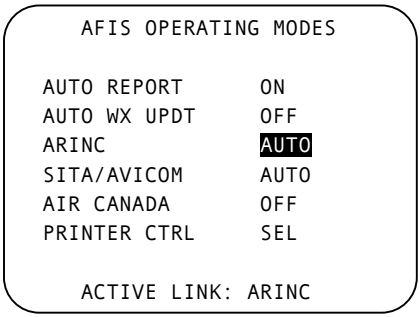
Note – To request a D-ATIS report for George Bush Intercontinental Airport, for example, send a message with the text ATISIAH in the address field. Please refer to page 9 for a list of air traffic services addresses and to Appendix A for a list of air traffic services airports.



G.10	**Display AFIS Message**
G.10.1	From the AFIS MENU page, line select DISPL AFIS MSG and then press ENTER. 
G.10.2	Press the NEXT and PREV function keys to move through the message pages. 
Note – A maximum of 15 pages of messages may be stored.	

G.11	**Operating Modes: Automatic Position Reporting**
G.11.1	From the AFIS MENU page, line select OPERATING MODES and then press ENTER. 
G.11.2	Line select AUTO REPORT and press the BACK function key to enable/disable automatic position reporting. 
Note – The GDC generally recommends enabling automatic position reporting. Please refer to page 9 for more information regarding automatic position reporting.	

G.12	**Operating Modes: Automatic Terminal Weather Updating**
Note: With this service enabled, the GDC sends to the aircraft all hourly terminal weather reports and forecasts for requested airports at approximately 15 minutes after each hour. To enable automatic terminal weather updating, select AUTO WX UPDT to ON. Then enter the desired airport identifiers on the AFIS TERMINAL WX page and send the request. To disable automatic weather updating, select AUTO WX UPDT to OFF. Then return to the AFIS TERMINAL WX page and send the request again to inform the GDC to stop sending updated terminal weather. Automatic position reporting must also be enabled for automatic terminal weather updating to function properly.	
G.12.1	From the AFIS MENU page, line select OPERATING MODES and then press ENTER. 
G.12.2	Line select the AUTO WX UPDT option and press the BACK function key to enable/disable automatic terminal weather updating. 

G.13	**Operating Modes: VHF Networks**
G.13.1	From the AFIS MENU page, line select OPERATING MODES and press ENTER. 
G.13.2	Line select ARINC, SITA/AVICOM, or AIR CANADA (if displayed) and press the BACK function key to set each network to AUTO, MAN, or OFF. 

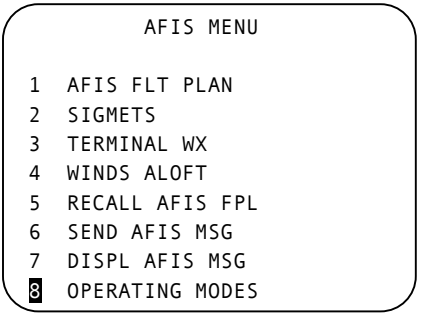
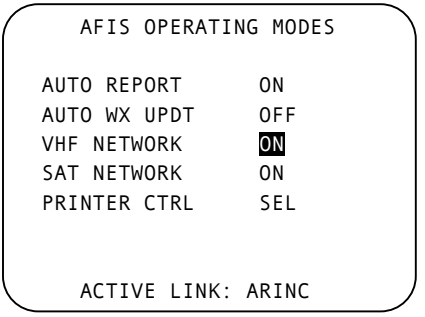
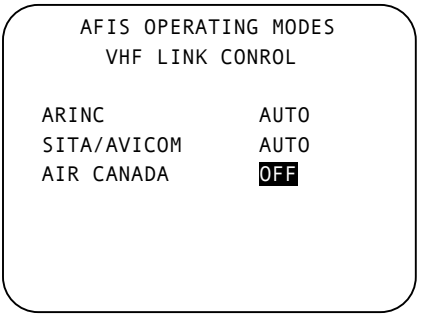
Note – The ARINC and SITA/AVICOM options should be selected to AUTO to allow the AFIS DMU to automatically switch to the appropriate network. The AIR CANADA option should be selected to OFF because the network has been decommissioned.

Note – Options for the VHF networks include the following:

AUTO: The VHF network is automatically selected when the aircraft is within the coverage area of that VHF network.

MAN: The AFIS DMU will only use the specified VHF network. If the aircraft is outside the coverage area of the specified VHF network, no VHF transmissions will be sent.

OFF: The AFIS DMU will not use the specified VHF network.

G.14	**Operating Modes: VHF & Satellite Networks**
G.14.1	From the AFIS MENU page, line select OPERATING MODES and press ENTER. 
G.14.2	Line select VHF NETWORK and press ENTER. 
G.14.3	Line select each VHF network and press the BACK function key to set each network to AUTO, MAN, or OFF. 
Note – The ARINC and SITA/AVICOM options should be selected to AUTO to allow the AFIS DMU to automatically switch to the appropriate network. The AIR CANADA option should be selected to OFF because the network has been decommissioned.	

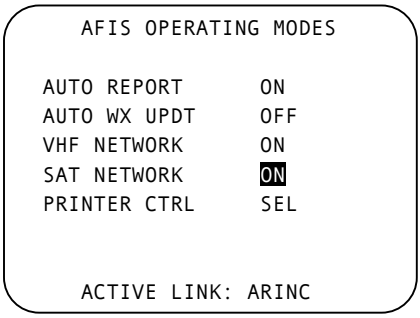
Note – Options for the VHF networks include the following:

AUTO: The VHF network is automatically selected when the aircraft is within the coverage area of that VHF network.

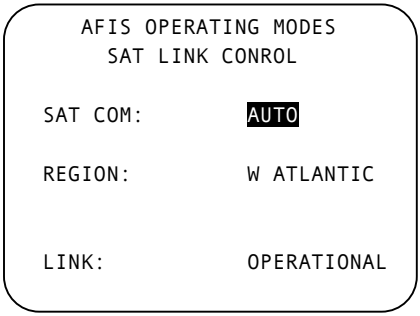
MAN: The AFIS DMU will only use the specified VHF network. If the aircraft is outside the coverage area of the specified VHF network, no VHF transmissions will be sent.

OFF: The AFIS DMU will not use the specified VHF network.

G.14.4	From the AFIS OPERATING MODES page, line select SAT NETWORK and press ENTER.

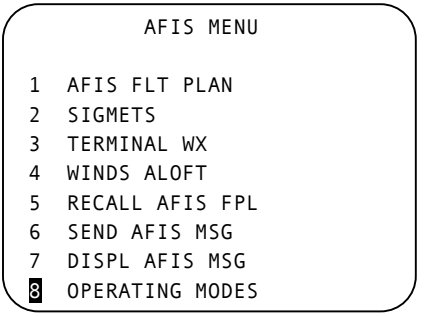
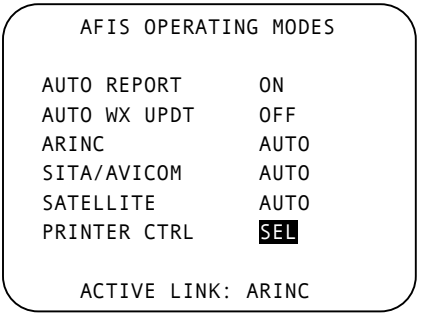
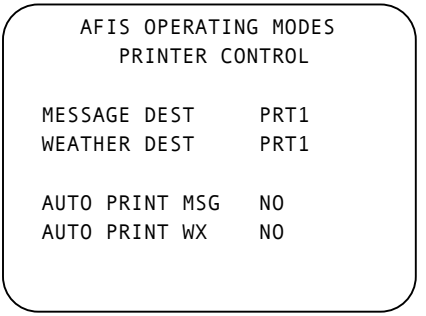


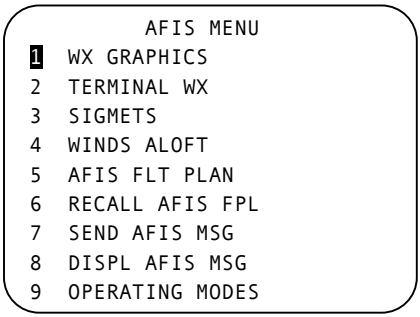
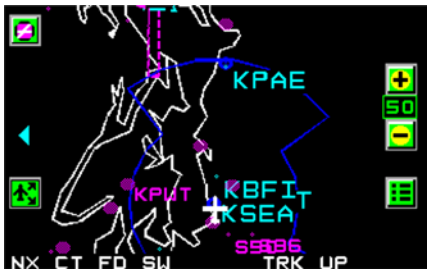
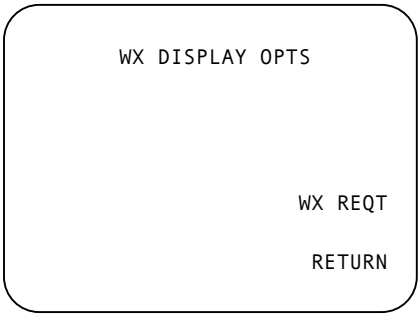
G.14.5	Line select SAT COM and press the BACK function key to set satellite communications to AUTO, MAN, or OFF. If MAN is selected, the four options available will be E ATLANTIC, W ATLANTIC, PACIFIC, AND INDIAN.



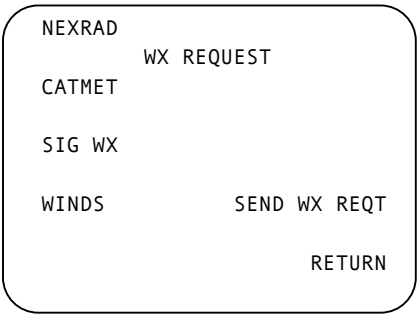
Note – The GDC generally recommends against selecting one specific satellite. If satellite functionality is desired select AUTO; if no satellite functionality is desired, select OFF.

Note – If the aircraft has an Aero-H, Aero-H+, or Aero-I satellite system installed, the only options available will be AUTO or OFF.

G.15	**Operating Modes: Printer Control**
G.15.1	From the AFIS MENU page, line select OPERATING MODES and press ENTER. 
G.15.2	Line select PRINTER CTRL and press ENTER. 
G.15.3	Line select the MESSAGE DEST or WEATHER DEST options and press the BACK function key to set the destination printer for messages and weather. Line select the AUTO PRINT MSG or AUTO PRINT WX options and press the BACK function key to enable/disable automatic printing of messages or weather. 

G.16	Weather Graphics
Note – Weather graphics via datalink are available to an upgraded AFIS DMU interfaced with a Global GNS-XLS Enhanced FMS and a Remote Processing Unit (RPU).	
G.16.1	With the required avionics installed for weather graphics, a WX GRAPHICS prompt is added to the AFIS MENU page. Line select WX GRAPHICS and press ENTER. 
G.16.2	The first time weather graphics are accessed after power-up, the 50 NM Moving Map page displays centered on the aircraft's position. Line select the blue caret. 
G.16.3	Line select WX REQT. 

G.16.4	Line select the desired type of weather graphics.



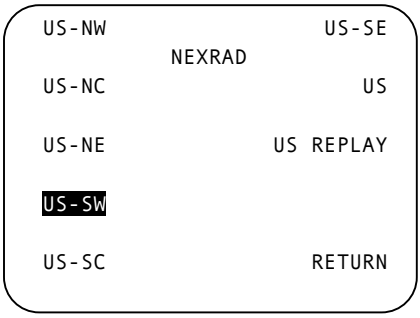
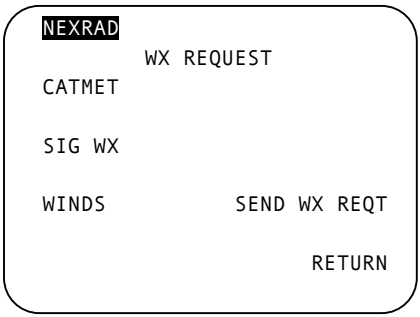
Note – Weather graphics available from the GDC include the following.

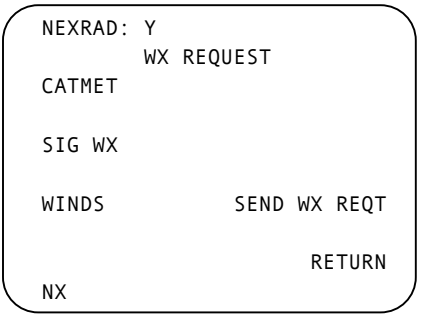
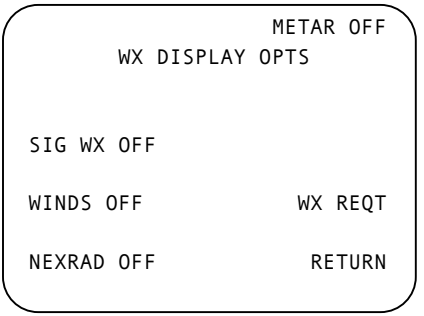
NEXRAD weather graphics are available for the continental United States in two resolutions: 64 km^2 resolution for national and regional graphics and 8 km^2 resolution for 100 NM and 200 NM graphics. Unshaded blocks indicate no precipitation to light mist, green blocks indicate light rain, yellow blocks indicate moderate rain and moderate thunderstorm activity, and red blocks indicate heavy rain and heavy thunderstorm activity. Cell altitude and movement are also displayed if a SIG WX graphic has been received.

CATMET (Categorical METAR) weather graphics are available worldwide and are similar to weather depiction charts, but are based on METAR data instead. Each reporting airport is represented by a block, with an uncolored block indicating VFR conditions (greater than 3000' ceiling and 5 NM visibility), a green block indicating MVFR conditions (between 1000' and 3000' ceiling and between 3 NM and 5 NM visibility), a yellow block indicating IFR conditions (between 500' and 1000' ceiling and between 1 NM and 3 NM visibility), and a red block indicating LIFR conditions (less than 500' ceiling and 1 NM visibility).

SIG WX (significant weather) weather graphics include turbulence, icing, radar cell tops, and the National Convective Weather Forecast (NWCF) in the continental United States and fronts, jetstreams, and convective information worldwide.

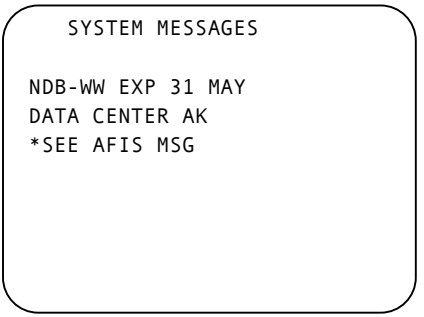
WINDS (winds aloft forecasts) weather graphics are available worldwide from the surface to FL510. The surface winds forecast must be requested as a CATMET request. Winds aloft arrows in green indicate winds less than 30 knots, yellow between 30 and 60 knots, and red above 60 knots. Surface winds arrows in green indicate winds less than 10 knots, yellow between 10 and 20 knots, and red above 20 knots.

G.16.5	If applicable, line select the desired region(s) for the selected type of weather graphic. Line select RETURN. 
G.16.6	Line select SEND WX REQT to send the weather graphics request. The SEND WX REQT prompt changes to PENDING while the request is being transmitted and the requested type(s) of weather graphics are displayed in parentheses until the weather graphics are received. 
Note – Multiple weather graphics may be included in a single request.	
Note – Weather graphics may contain over 10,000 characters each. Depending on the user's subscription plan, requesting weather graphics via satellite may not be desirable.	

G.16.7	When the weather graphics are received, the parentheses are removed from around the type of weather graphics, the letter "Y" is displayed next to the type of weather graphics, and the appropriate weather graphics code(s) are displayed at the lower left. Line select RETURN. 
Note – Possible weather graphics codes include the following: *NX: NEXRAD weather graphic* *CT: CATMET weather graphic* *FD: Winds aloft forecast weather graphic* *SW: Significant weather forecast weather graphic*	
Note – The letter "X" is displayed next to the type of weather graphics if that type of weather graphics is not currently available.	
G.16.8	Available but disabled weather graphics display with an OFF indicator to the right of the type of weather graphics. Line select the desired type of weather graphics to change the indicator to ON and enable that type of weather graphics for display. Line select RETURN. 

G.16.9	From the Map page, waypoint information may be accessed, display options may be changed, the map may be slewed, and the map may be enlarged or reduced. 
Note – Please refer to the GNS-XLS Enhanced FMS Operator's Manual for additional detailed information, particularly regarding weather graphics display options.	
Note – Uplinked weather graphics that are more than 6 hours old will be deleted automatically to prevent unintended use of outdated weather information.	

G.17	AFIS System Messages
G.17.1	To access AFIS system messages, press the MSG function key. New messages will cause the MSG light to flash and will display with a flashing asterisk on the SYSTEM MESSAGES page.



Note – AFIS related system messages include the following:

AFIS CONFIG CHG: AFIS DMU configuration has been changed.

AFIS CONFIG FAIL: AFIS DMU configuration module requires maintenance.

DATA CENTER AK: Message or request has been acknowledged by the Global Data Center.

DOWNLINK FAIL: The last downlink was corrupted and not transmitted

FPL RECALLED: The requested flight plan has been recalled.

FPL UPDATED: The active flight plan has been updated.

NO COMM: The AFIS DMU is unable to establish contact with a VHF station or satellite.

SEE AFIS MSG: A new AFIS message is available on the DISPL AFIS MSG page.

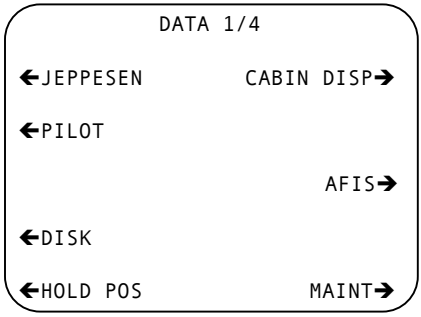
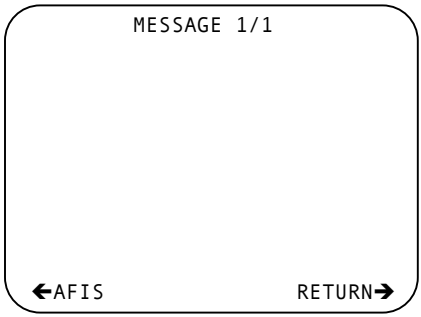
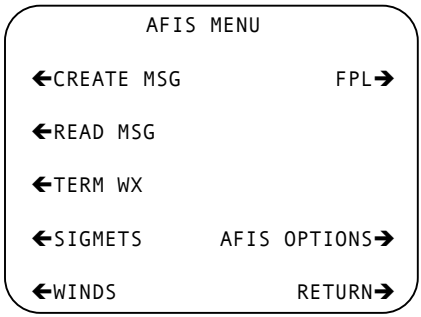
SIGMETS UPDATED: SIGMETs have been updated.

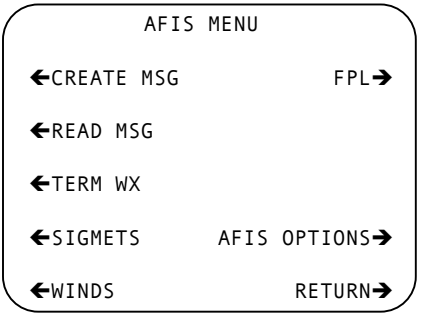
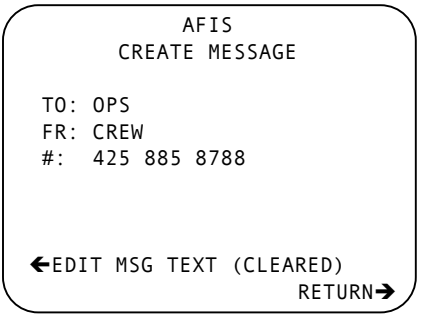
UPLINK FAIL: The AFIS DMU did not accept the most recent uplink.

WINDS UPDATED: Winds aloft have been updated.

WX UPDATED: Terminal weather has been updated.

Universal FMS Procedures

U.1	AFIS Menu
U.1.1	Press the DATA function key to access the DATA 1/4 page, then line select AFIS to access the AFIS MENU page. 
U.1.2	Alternately, press the MSG function key to access the MESSAGE page, then line select AFIS to access the AFIS MENU page. 
U.1.3	From the AFIS Menu page, select each AFIS function with the corresponding line select key. 

U.2	Create Message, PDCs, and D-ATIS
U.2.1	From the AFIS Menu, line select CREATE MSG. 
U.2.2	Enter the appropriate information at the TO, FR, and # (address) fields. Please refer to page 6 for a list of possible message recipient addresses. Line select EDIT MSG TEXT to edit the message text. 

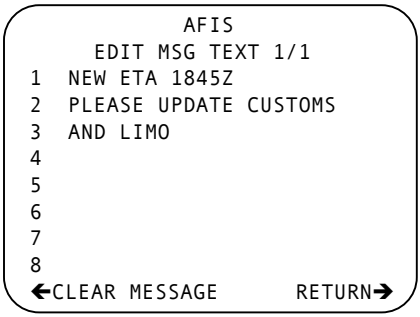
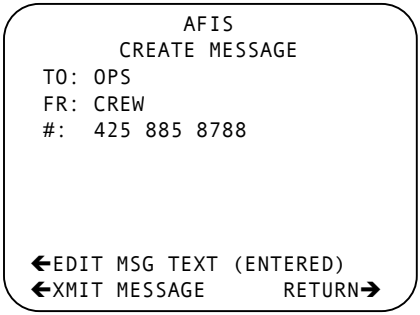
Note – EDIT MSG TEXT status indicators include the following:

ENTERED: Message text has been entered on the EDIT MSG TEXT page but the message has not yet been sent.

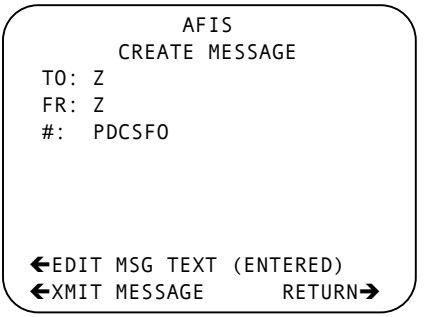
SENDING: The message is in the process of being sent.

SENT: The message has been sent.

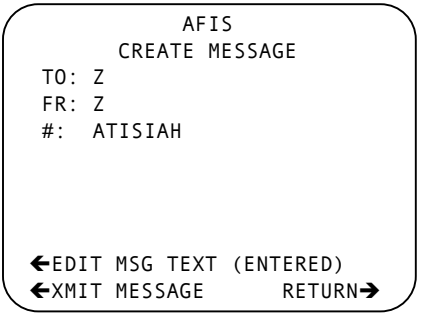
CLEARED: The message text has been cleared.

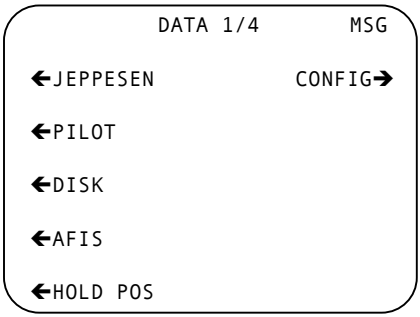
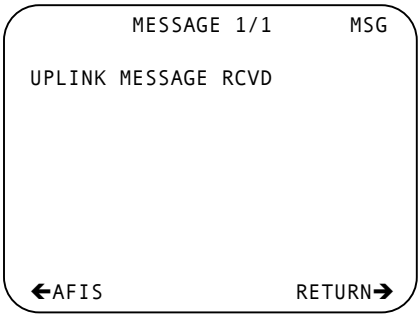
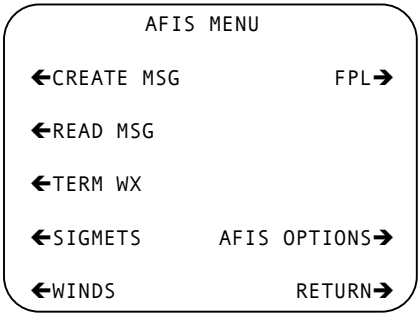
U.2.3	Enter the message text, using the ± key to insert spaces between words and the ENTER key to move to the next line. Line select CLEAR MESSAGE to erase the message or line select RETURN to return to the CREATE MESSAGE page. 
U.2.4	Once the message has been entered, line select RETURN to return to the CREATE MESSAGE page. The XMIT MESSAGE option will now be available. Line select XMIT MESSAGE to send the message. 
Note – If datalink communication is not available, NO COMM will display instead of XMIT MESSAGE.	
Note – When sending a PDC request, D-ATIS request, or other air traffic services request, be aware that at least one character must be entered in the TO and FR fields and also on the EDIT MSG TEXT page in order for the XMIT MESSAGE prompt to be available.	

Note – To request a PDC departing San Francisco International Airport, for example, send a datalink message with the text PDCSFO in the address field. Please refer to page 7 for more information regarding PDCs and to Appendix A for a list of PDC airports..

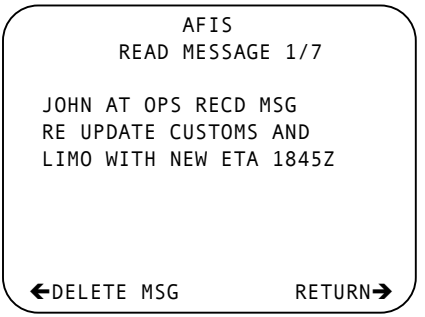


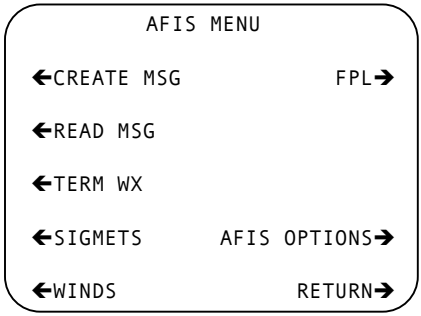
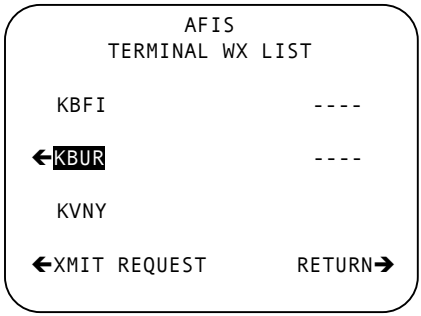
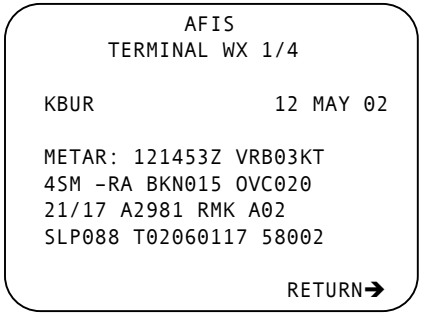
Note – To request a D-ATIS report for George Bush Intercontinental Airport, for example, send a datalink message with the text ATISIAH in the address field. Please refer to page 9 for a list of air traffic services addresses and to Appendix A for a list of air traffic services airports.

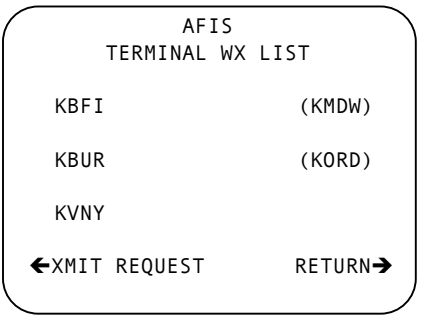


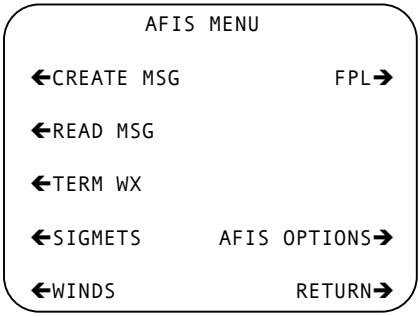
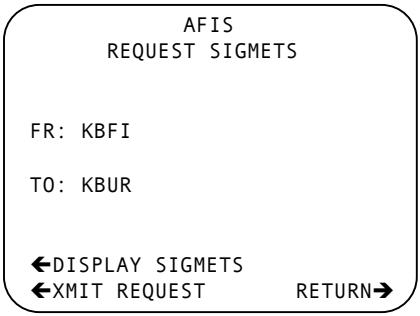
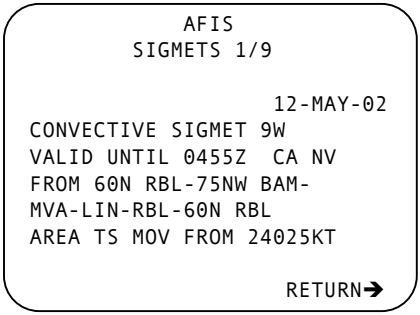
U.3	**Read Message**
U.3.1	When a new message is received, MSG will display on the right side of the top line of the display screen. Press the MSG function key to display the MESSAGE page or line select AFIS to access the AFIS MENU page. 
U.3.2	UPLINK MESSAGE RECEIVED will display to indicate that a new AFIS message has been received. Line select AFIS to access the AFIS MENU page. 
U.3.3	From the AFIS Menu, line select READ MSG to view the received message. 

U.3.4	Press the NEXT and PREV function keys to move through the message pages or line select DELETE MSG to delete the message. Up to five messages may be stored, with the most recently received message displayed first.

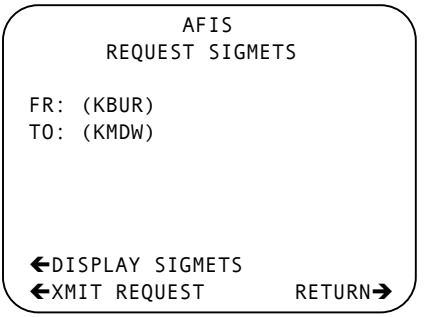


U.4	**Terminal Weather**
U.4.1	From the AFIS Menu, line select TERM WX. 
U.4.2	Line select the desired airport twice to view the terminal weather for that airport. Line select XMIT REQUEST and press ENTER to update the terminal weather for all listed airports. (WAITING) displays above XMIT REQUEST until the requested terminal weather has been received. 
U.4.3	Press the NEXT and PREV function keys to move through the terminal weather pages. Line select RETURN to return to the AFIS TERMINAL WX LIST page. 

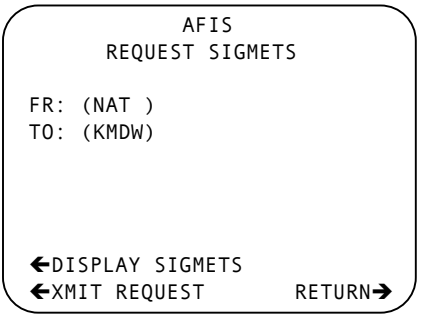
Note – If no terminal weather is available, NO DATA will be displayed in the center of the page. If a request has been sent but not yet received, WAITING FOR DATA will be displayed. When new terminal weather is being received, DATA TRANSFER IN PROGRESS will be displayed.	
U.4.4	To add to or change the airports listed, line select and enter into the list the desired airport identifiers. Then line select XMIT REQUEST and press ENTER to update the terminal weather for all listed airports. (WAITING) will display above XMIT REQUEST until the requested terminal weather has been received. Until updated terminal weather has been requested and received, the new airport identifiers display in parentheses. 
Note – To enable automatic terminal weather updating, refer to procedure U.12, AFIS Options: Automatic Terminal Weather Updating.	

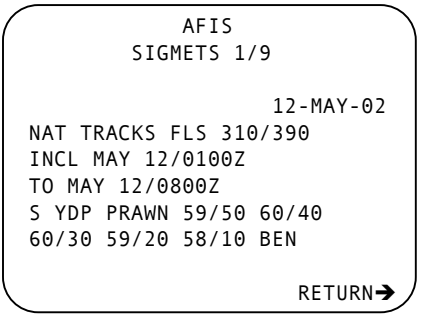
U.5	**SIGMETs and NAT Track Messages**
U.5.1	From the AFIS Menu, line select SIGMETS. 
U.5.2	The REQUEST SIGMETS page defaults to the departure and destination airports of the active flight plan. Line select DISPLAY SIGMETS to display the SIGMETs between those airports, or line select XMIT REQUEST and press ENTER to update the SIGMETs. 
U.5.3	Press the NEXT and PREV function keys to move through the SIGMET pages. Line select RETURN to return to the REQUEST SIGMETS page. 

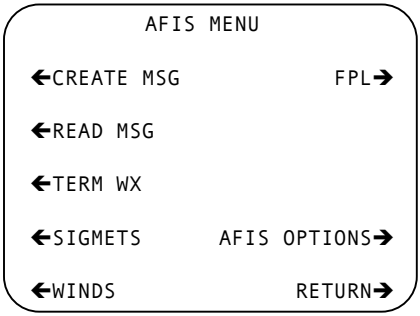
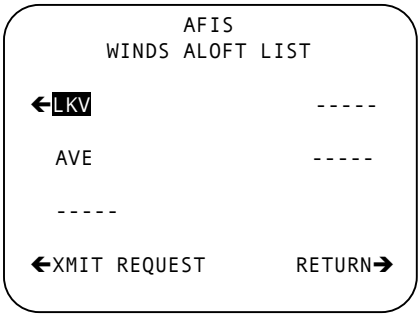
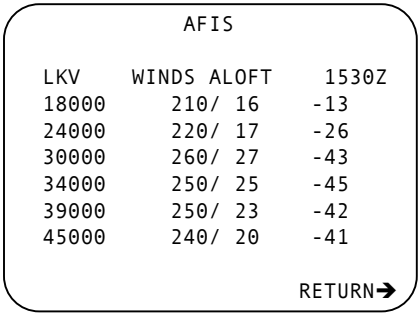
U.5.4	To change the airports listed, line select and enter the desired airport identifiers, then line select XMIT REQUEST and press ENTER to send the request. (WAITING) will be displayed above XMIT REQUEST until the requested SIGMETs are received. Until the updated SIGMETs are received, the airport identifiers display in parentheses.



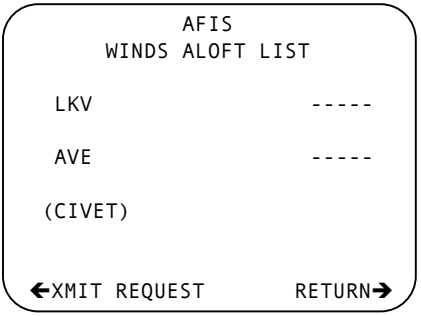
Note – To request the NAT Track Message, enter NAT (for all tracks), NATE (eastbound tracks only), or NATW (westbound tracks only) at the FR field on the REQUEST SIGMETS page, line select XMIT REQUEST, and then press ENTER to send the request.

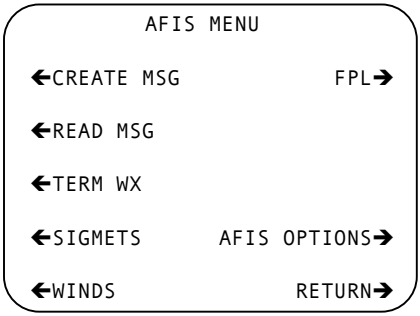
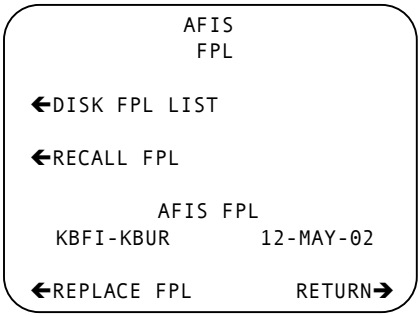




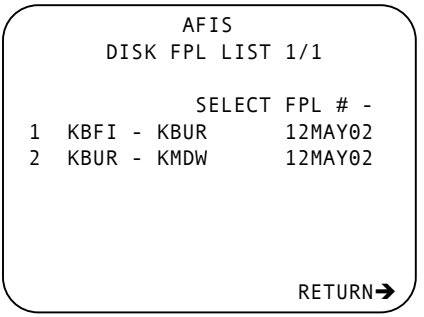
U.6	**Winds Aloft**
U.6.1	From the AFIS Menu, line select WINDS. 
U.6.2	Line select the desired location twice to view the winds aloft for that location. Line select XMIT REQUEST and press ENTER to update the winds aloft for all listed locations. (WAITING) will display above XMIT REQUEST until the requested winds aloft have been received. 
U.6.3	Line select RETURN to return to the AFIS WINDS ALOFT LIST page. 

Note – If no winds aloft forecast is available, NO DATA will be displayed in the center of the page. If a request has been sent but not yet received, WAITING FOR DATA will be displayed. When a new winds aloft forecast is being received, DATA TRANSFER IN PROGRESS will be displayed.	
U.6.4	To add to or change the locations listed, line select and enter into the list the desired locations. Valid locations include airports, navaids, and charted waypoints. For NDB locations, add an 'NB' suffix. Then line select XMIT REQUEST and press ENTER to send the request. (WAITING) will display above XMIT REQUEST until the requested winds aloft have been received. Until updated winds aloft have been received, the new locations display in parentheses.



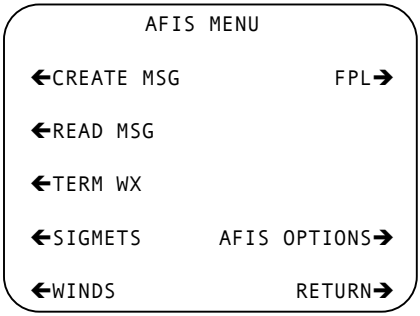
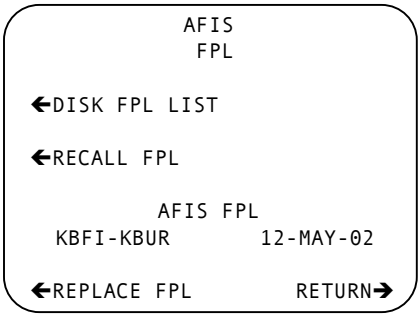
U.7	Flight Plan: Load From Disk
U.7.1	From the AFIS Menu, line select FPL. 
U.7.2	The AFIS FPL page displays the flight plan last uplinked or loaded from disk since power up. Line select DISK FPL LIST to load a flight plan from disk or line select REPLACE FPL to replace the active flight plan with the displayed AFIS flight plan. 
Note – When no flight plan is available, dashes will appear in the place of the airport identifiers and the date.	
Note – If a flight plan has been requested but not yet received, (WAITING) will be displayed below the dashes. If a flight plan is being received but not complete, (RECEIVING) will be displayed below the dashes. When REPLACE FPL is selected, REPLACE FPL will be blanked and (REPLACING) will flash above the field until the flight plan has been replaced.	

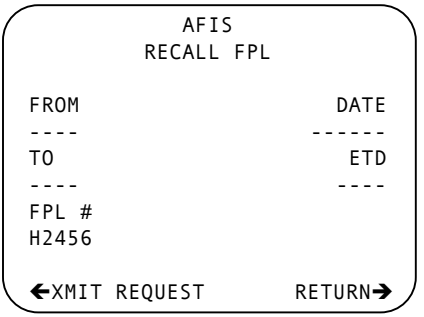
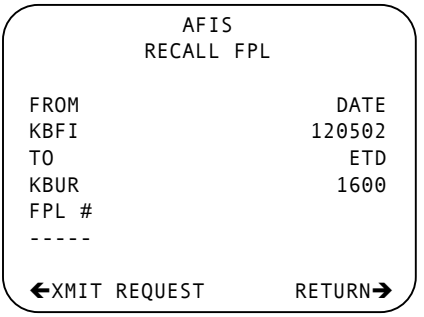
U.7.3	With a disk containing AFIS flight plan(s) inserted into the AFIS Data Transfer Unit (DTU), line select SELECT FPL #, enter the number of the flight plan, and then press ENTER. The selected flight plan then displays on the AFIS FPL page and may be selected to replace the active flight plan.

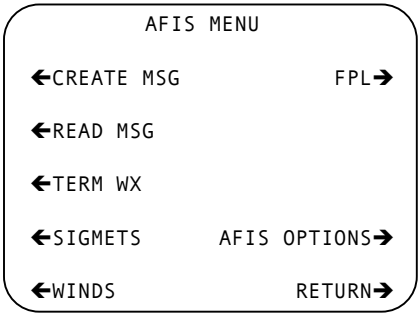
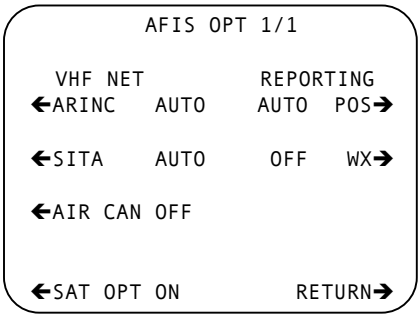


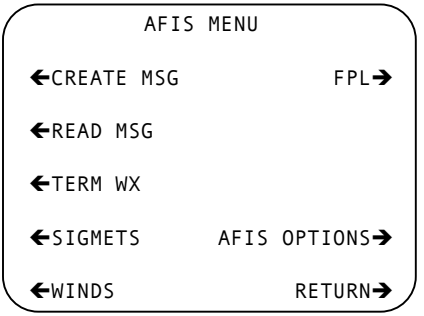
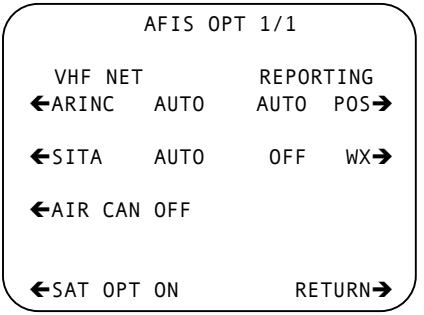
Note – If no disk has been inserted in the AFIS DTU, the message NO DISK will display. If a disk has been inserted but contains no valid AFIS flight plans, the message NO AFIS FLIGHT PLANS ON DISK will display. If a disk has been inserted and contains valid AFIS flight plans, the message READING DISK will display until the DISK FPL LIST page displays.

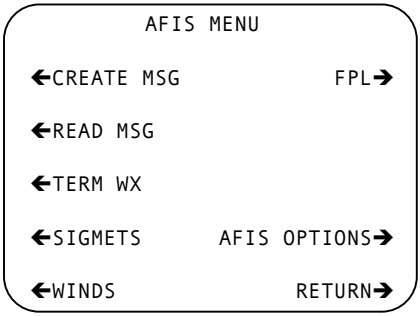
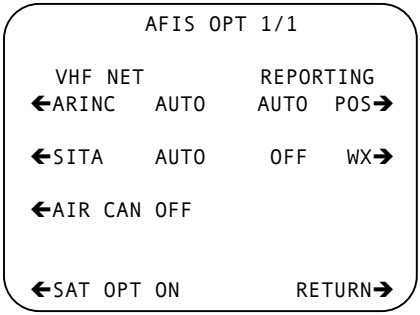
Note – The DISK FPL LIST page may display up to 25 AFIS flight plans on four pages. Press the NEXT and PREV function keys to move through the DISK FPL LIST pages.

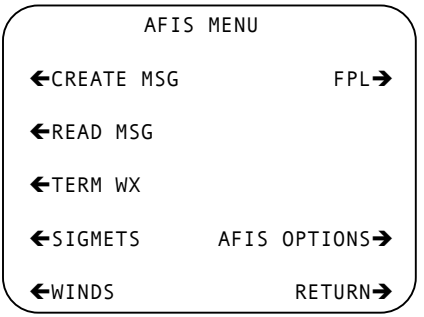
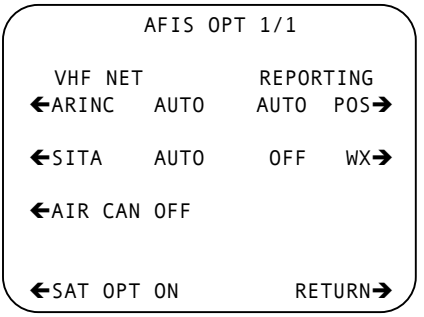
U.8	Flight Plan: Recall via Uplink
U.8.1	From the AFIS Menu, line select FPL. 
U.8.2	The AFIS FPL page displays the flight plan last uplinked or loaded from disk since power up. Line select RECALL FPL to recall a flight plan via AFIS uplink or line select REPLACE FPL to replace the active flight plan with the displayed AFIS flight plan. 
Note – When no flight plan is available, dashes will appear in the place of the airport identifiers and the date.	
Note – If a flight plan has been requested but not yet received, (WAITING) will be displayed below the dashes. If a flight plan is being received but not complete, (RECEIVING) will be displayed below the dashes. When REPLACE FPL is selected, REPLACE FPL will be blanked and (REPLACING) will flash above the field until the flight plan has been replaced.	

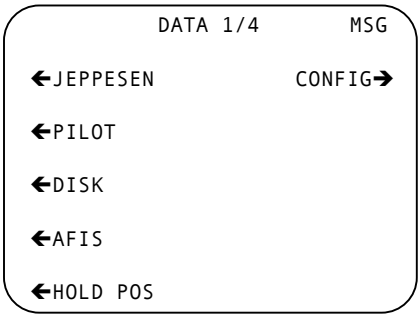
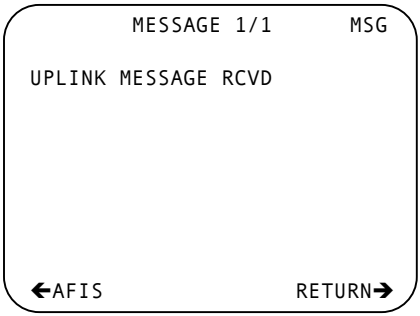
U.8.3	To recall a flight plan by the flight plan recall number, line select FPL #, enter the five character flight plan recall number, and then line select XMIT REQUEST. Once the flight plan is received, it will display on the AFIS FPL page and may be selected to replace the active flight plan. 
U.8.4	Alternately, if the flight plan recall number is not known, line select and enter the appropriate information at the FROM, TO, DATE (DDMMYY), and ETD (HHMM) fields. Then line select XMIT REQUEST to send the recall request. Once the flight plan is received, it displays on the AFIS FPL page and may be selected to replace the active flight plan. 

U.9	**AFIS Options: VHF Networks**
U.9.1	From the AFIS Menu, line select AFIS OPTIONS. 
U.9.2	Line select the ARINC, SITA, or AIR CAN (Air Canada) options in the VHF NET column to set the corresponding VHF network to AUTO or OFF. 
Note – The ARINC and SITA options should be set to AUTO to allow the AFIS DMU to automatically switch to the appropriate network. The AIR CAN option (if displayed) should be set to OFF because the Air Canada network has been decommissioned.	

U.10	**AFIS Options: Satellite Network**
U.10.1	From the AFIS Menu, line select AFIS OPTIONS. 
U.10.2	Line select SAT OPT to set AFIS transmissions via satellite to ON or OFF. 

U.11	**AFIS Options: Automatic Position Reporting**
U.11.1	From the AFIS Menu, line select AFIS OPTIONS. 
U.11.2	Line select POS in the REPORTING column to set automatic position reporting to AUTO or OFF. 
Note – The GDC generally recommends enabling automatic position reporting. Please refer to page 9 for more information regarding automatic position reporting.	

U.12	AFIS Options: Automatic Terminal Weather Updating
Note – With this service enabled, the GDC sends to the aircraft all hourly terminal weather reports and forecasts for requested airports at approximately 15 minutes after each hour. To enable automatic terminal weather updating, set WX in the REPORTING column to AUTO. Then enter the desired airport identifiers on the AFIS TERMINAL WX LIST page and send the request. To disable automatic terminal weather updating, set WX in the REPORTING column to OFF. Then return to the AFIS TERMINAL WX LIST page and send the request again to inform the GDC to stop sending updated terminal weather. Automatic position reporting must also be enabled for automatic terminal weather updating to function properly.	
U.12.1	From the AFIS Menu, line select AFIS OPTIONS. 
U.12.2	Line select WX in the REPORTING column to set automatic terminal weather updating to AUTO or OFF. 

U.13	**AFIS System Messages**
U.13.1	When a new system message is generated, MSG will display on the right side of the top line of the CDU screen. Press the MSG function key to display the MESSAGE page or line select AFIS to access the AFIS MENU page. 
U.13.2	View the system messages or line select AFIS to access the AFIS MENU page. 

Note – AFIS related system messages include the following:

AFIS ARINC FAILURE: The FMS has determined that a failure has occurred in the AFIS ARINC bus.

AFIS CONFIG INVALID: The AFIS DMU has invalid configuration data. This condition disables the datalink system.

AFIS DOWNLINK (or UPLINK) FAIL: The AFIS DMU has determined that the downlink (or uplink) communication has failed. Retransmit the last message or request.

AFIS FPL RCVD: A flight plan has been received via AFIS uplink or loaded from disk.

AFIS NO COMM: The AFIS DMU is unable to establish contact with a VHF station or satellite. Retransmit the last message or request.

Note – AFIS related system messages include the following:

AFIS VHF LINK DISABLED: The AFIS VHF link is disabled. This condition occurs in a shared antenna system when the VHF antenna is being used by the VHF voice radio system.

AFIS VHF MODEM FAIL: The VHF transceiver in the AFIS DMU has failed.

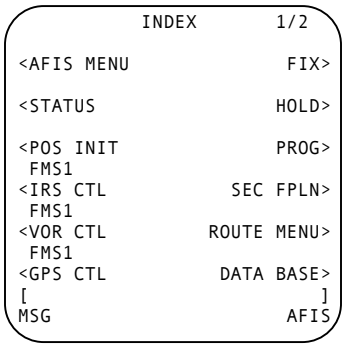
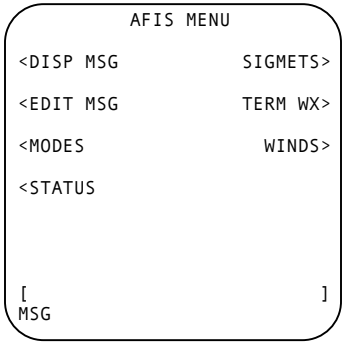
SIGMETS RCVD: SIGMET forecasts have been received via AFIS uplink or loaded from disk.

TERMINAL WEATHER RCVD: Terminal weather reports and forecasts have been received via AFIS uplink or loaded from disk.

UPLINK MESSAGE RCVD: A message has been received via AFIS uplink.

WINDS ALOFT RCVD: Winds aloft forecasts have been received via AFIS uplink or loaded from disk.

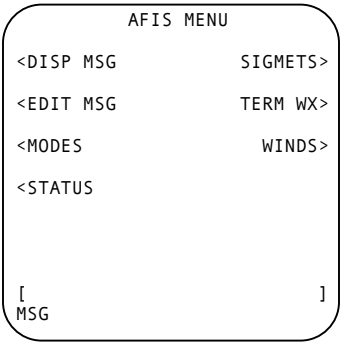
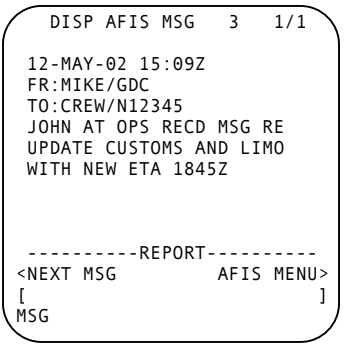
Collins FMS Procedures

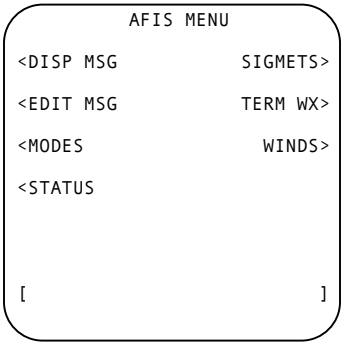
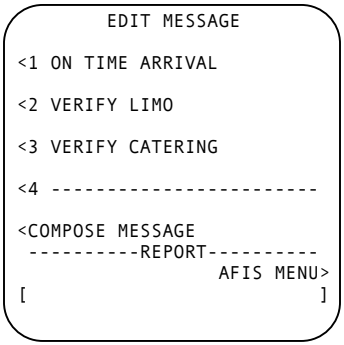
C.1	AFIS Menu
C.1.1	Press the IDX function key to display the INDEX 1/2 page. 
C.1.2	Line select AFIS MENU to display the AFIS MENU page. 

Note – On the AFIS MENU page, the annunciators REQUEST and REPORT display in green above the white AFIS menu items when a request for information has been made (REQUEST) and when unread messages and/or weather information are available or when a status change has occurred on the STATUS page (REPORT).

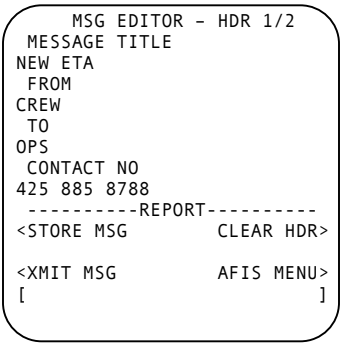
Note – When unread messages and/or weather information is available, REPORT will display in white on the dashed line at the bottom of all AFIS pages other than the AFIS MENU page.

Note – When a page other than an AFIS page is displayed and unread messages and/or weather information is available, AFIS will display on the MESSAGE line.

C.2	Display Message
C.2.1	From the AFIS MENU page, line select DISP MSG. 
C.2.2	The DISP AFIS MSG page displays the most recent message first. To view the next most recent message, line select NEXT MSG. 
Note – The number of the current message displays on the title line of the page, followed by the current/total pages of the message. To move through a message with multiple pages, use the NEXT and PREV function keys.	
Note – The four most recently uplinked messages are stored for review.	

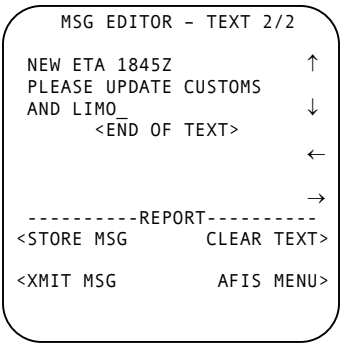
C.3	**Edit Message, PDCs, and D-ATIS**
C.3.1	From the AFIS MENU page, line select EDIT MSG. 
C.3.2	The EDIT MSG page allows selection of one of four possible stored messages or composition of a new message. To edit or transmit a stored message, line select the message title. To compose and transmit a new message, line select COMPOSE MESSAGE. Either option will display the MSG EDITOR pages. 

C.3.3	Enter the appropriate information into the available fields on the MSG EDITOR – HDR 1/2 page. Please refer to page 6 for a list of possible message recipient addresses to enter at the CONTACT NO field. Press the NEXT function key to access the MSG EDITOR – TEXT 2/2 page.

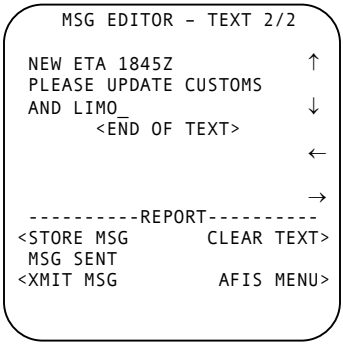


Note – The TO and CONTACT NO fields are required. If the MESSAGE TITLE field is left blank, the message is assigned a message number (e.g., MSG1). If the FROM field is left blank, the aircraft registration (or permanent callsign) will automatically be inserted.

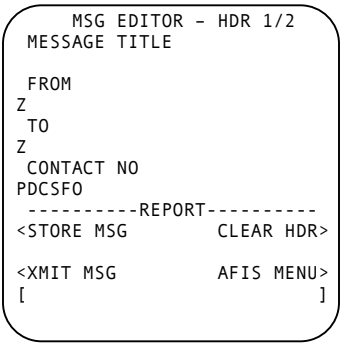
C.3.4	Enter the message text on the MSG EDITOR – TEXT 2/2 page. To transmit the message, line select XMIT MSG.



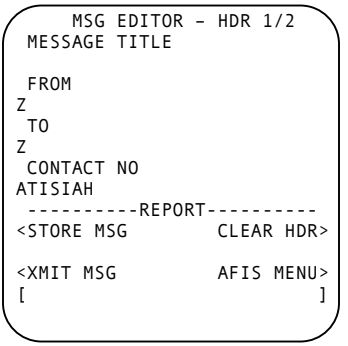
Note – To move the green underline cursor on the MSG EDITOR – TEXT 2/2 page from line to line, line select the appropriate arrow key. The CLR function key backspaces the cursor and the DEL function key deletes the character directly above the cursor.

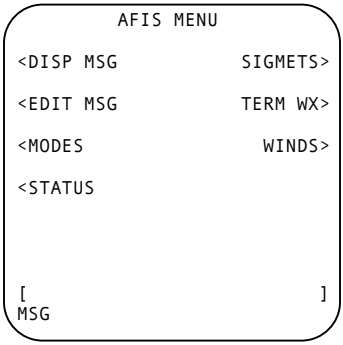
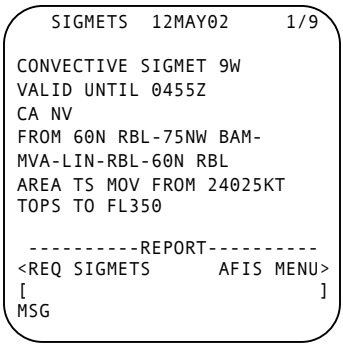
C.3.5	After the message is sent, MSG SENT displays in green above the XMIT MSG line. To store the message, line select STORE MSG to display the STORE PRE-PGM MSG page. 
C.3.6	The title of the message to be stored is displayed below MESSAGE TITLE. Line select the desired storage location to store the message. 

Note – To request a PDC departing San Francisco International Airport, for example, send a datalink message with the text PDCSFO in the address field. Please refer to page 7 for more information regarding PDCs and to Appendix A for a list of PDC airports.



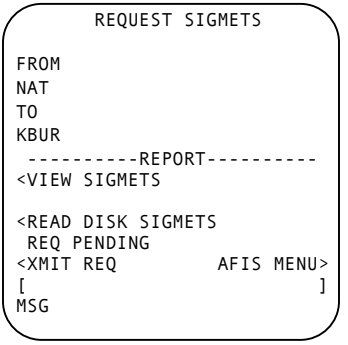
Note – To request a D-ATIS report for George Bush Intercontinental Airport, for example, send a datalink message with the text ATISIAH in the address field. Please refer to page 9 for a list of air traffic services addresses and to Appendix A for a list of air traffic services airports.

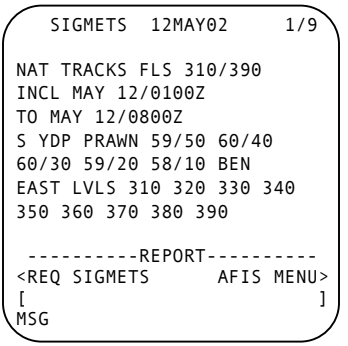


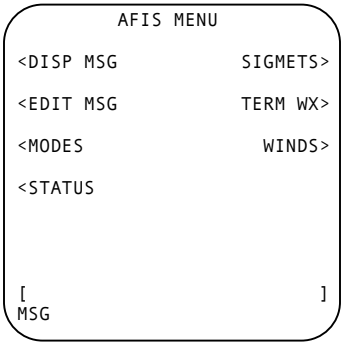
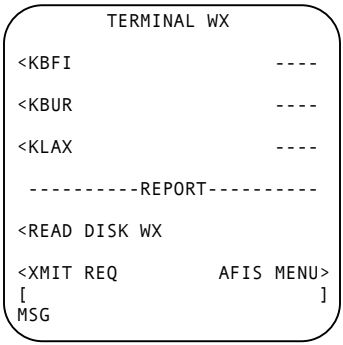
C.4	**SIGMETs and NAT Track Messages**
C.4.1	From the AFIS MENU page, line select SIGMETS. 
C.4.2	Press the NEXT and PREV function keys to move through the SIGMET pages, or line select REQ SIGMETS to update or modify the SIGMETs. 
C.4.3	Enter and line select the desired departure and destination airports at the appropriate fields, then line select XMIT REQUEST. REQ PENDING will display above XMIT REQ until the requested SIGMETs are received. 

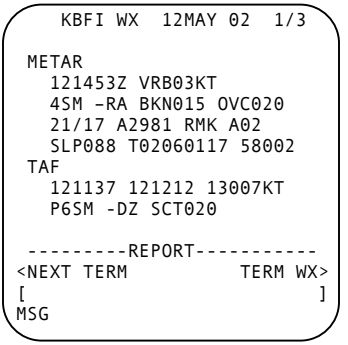
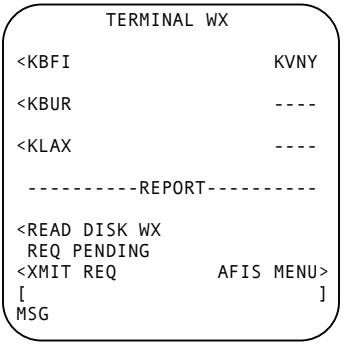
Note – The GDC no longer provides SIGMET forecasts on disk.

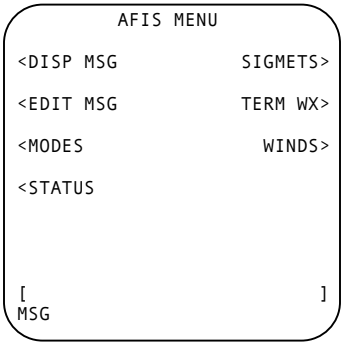
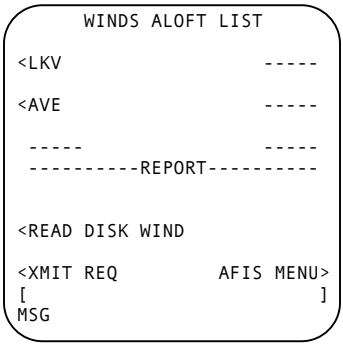
Note – To request the NAT Track Message, enter NAT (for all tracks), NATE (eastbound tracks only), or NATW (westbound tracks only) at the FROM field on the REQUEST SIGMETS page and then line select XMIT REQUEST. REQ PENDING will display above XMIT REQ until the NAT Track Message is received. Line select VIEW SIGMETS to view the NAT Track Message after it is received.

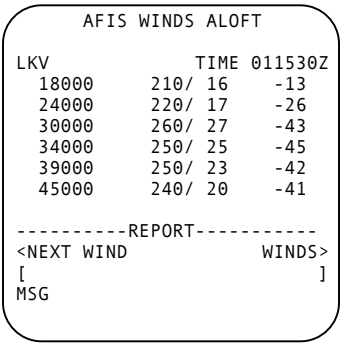
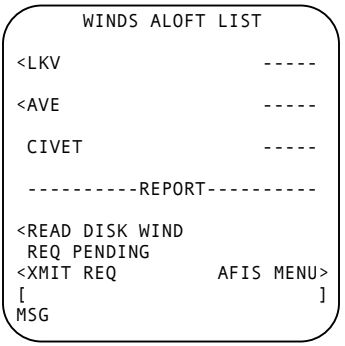


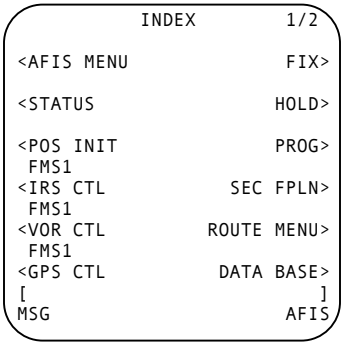
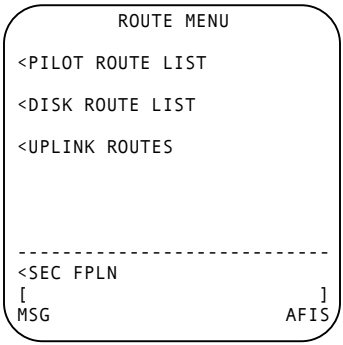


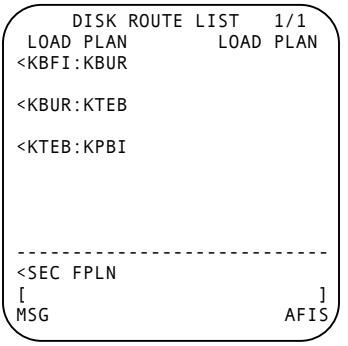
C.5	**Terminal Weather**
C.5.1	From the AFIS MENU page, line select TERM WX. 
C.5.2	Line select the desired airport to view terminal weather for that airport. Line select XMIT REQUEST to update terminal weather for all listed airports. REQ PENDING will display above XMIT REQ until the requested terminal weather has been received. 
Note – The GDC no longer provides terminal weather reports and forecasts on disk.	

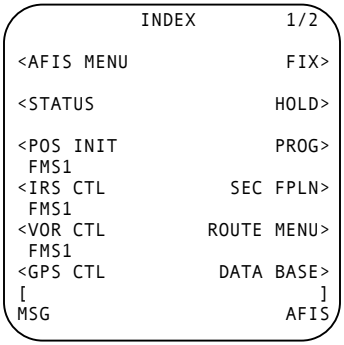
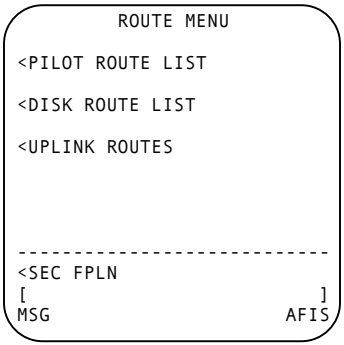
C.5.3	Press the NEXT and PREV function keys to page through the terminal weather reports. Line select NEXT TERM to view the next report or TERM WX to return to the TERMINAL WX page. 
C.5.4	To add to or change the airports listed, enter and line select into the list the desired airport identifiers. Then line select XMIT REQUEST to send the request. REQ PENDING will display above XMIT REQ until the requested terminal weather has been received. Until updated weather has been received, the new airport identifiers will display without a caret to the side. 
Note – To enable automatic terminal weather updating, refer to procedure C.11, Modes: Automatic Terminal Weather Updating.	

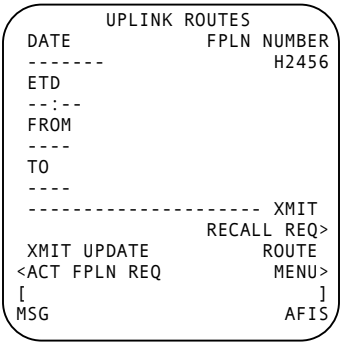
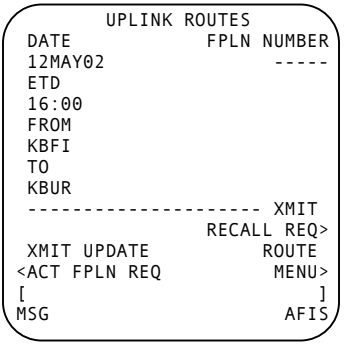
C.6	**Winds Aloft**
C.6.1	From the AFIS MENU page, line select WINDS. 
C.6.2	Line select the desired location to view the winds aloft report for that location. Line select XMIT REQUEST to update winds aloft for all listed locations. REQ PENDING will display above XMIT REQ until the requested winds aloft have been received. 
Note – The GDC no longer provides winds and temperatures aloft forecasts on disk.	

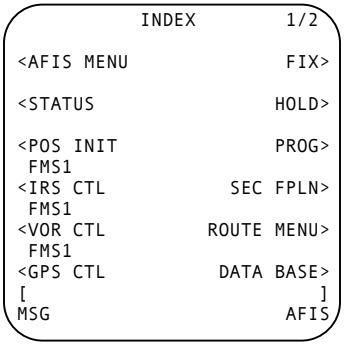
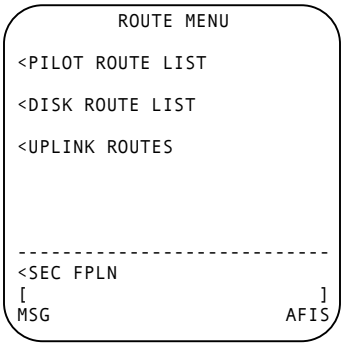
C.6.3	Line select NEXT WIND to view the next report or WINDS to return to the WINDS ALOFT LIST page. 
C.6.4	To add to or change the locations listed, enter and line select into the list the desired locations. Valid locations include airports, navaids, and charted waypoints. For NDB locations, add an 'NB' suffix. Then line select XMIT REQUEST to send the request. REQ PENDING will display above XMIT REQ until the requested winds aloft have been received. Until updated winds aloft have been received, the new locations will display without a caret to the side. 

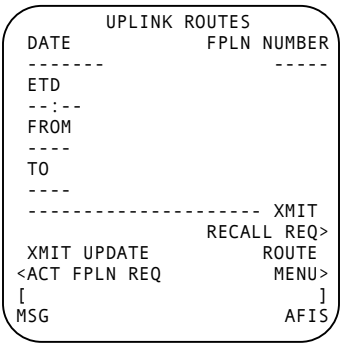
C.7	**Flight Plan: Load From Disk**
C.7.1	Press the IDX function key to display the INDEX 1/2 page. 
C.7.2	Line select ROUTE MENU to display the ROUTE MENU page. 

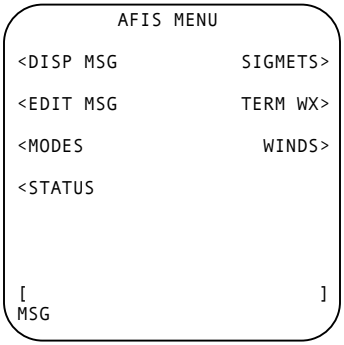
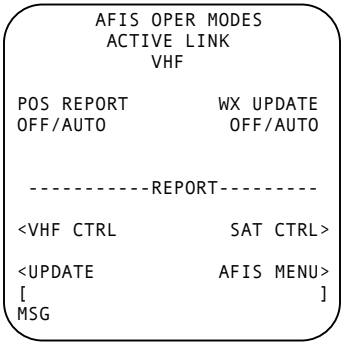
C.7.3	With a disk containing AFIS flight plan(s) inserted in the Data Base Unit (DBU), line select DISK ROUTE LIST to display the DISK ROUTE LIST 1/1 page. Line select the desired flight plan to load it as the second flight plan (SEC FPLN). The flight plan may then be executed as the active flight plan (ACT FPLN). 

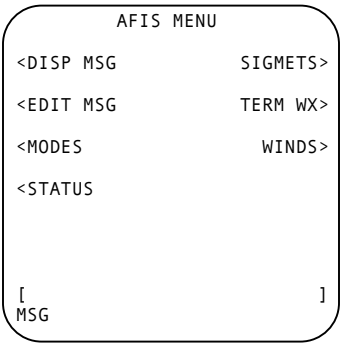
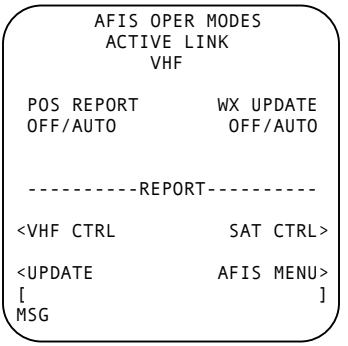
C.8	**Flight Plan: Recall Via Uplink**
C.8.1	Press the IDX function key to display the INDEX 1/2 page. 
C.8.2	Line select ROUTE MENU to display the ROUTE MENU page. 

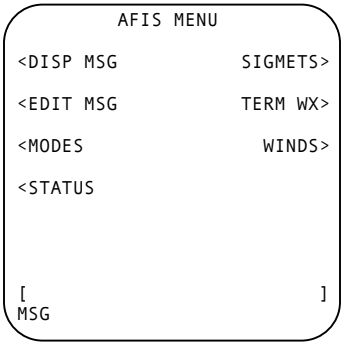
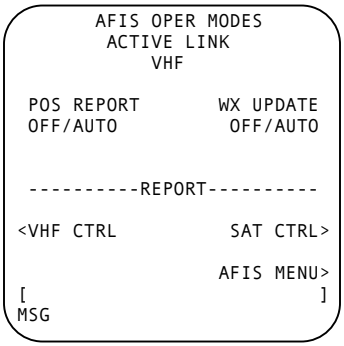
C.8.3	Line select UPLINK ROUTES to display the UPLINK ROUTES page. Enter the five character flight plan recall number at the FPLN NUMBER field and then line select XMIT RECALL REQ to send the recall request. When the requested flight plan is received, the flight plan is loaded as the second flight plan (SEC FPLN) and then may be executed as the active flight plan (ACT FPLN). 
C.8.4	Alternately, if the flight plan recall number is not known, enter the appropriate information at the DATE, ETD, FROM, and TO fields. Then line select XMIT RECALL REQ to send the recall request. When the requested flight plan is received, the flight plan is loaded as the second flight plan (SEC FPLN) and then may be executed as the active flight plan (ACT FPLN). 
Note – Do not make changes to the SEC FPLN while a flight plan recall request is pending. Any changes made to the SEC FPLN while a request is pending results in cancellation of the request.	

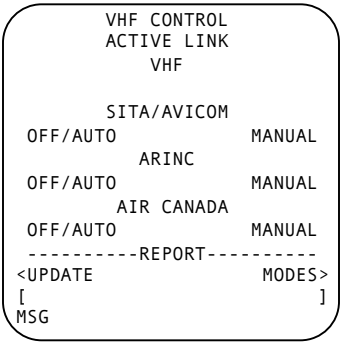
C.9	Flight Plan: Update Active Flight Plan
C.9.1	Press the IDX function key to display the INDEX 1/2 page. 
C.9.2	Line select ROUTE MENU to display the ROUTE MENU page. 

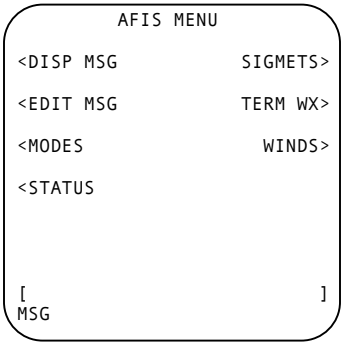
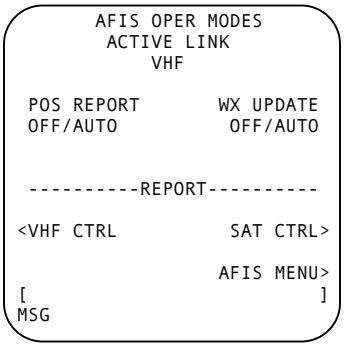
C.9.3	Line select UPLINK ROUTES to display the UPLINK ROUTES page, and then line select XMIT UPDATE ACT FPLN REQ to send a request to update the active flight plan (ACT FPLN). The active flight plan waypoint list, aircraft weight, and current and assigned altitudes are downlinked to the GDC to update the flight plan based on the current winds and temperatures aloft forecast. The updated flight plan is then uplinked to the aircraft and automatically loaded as the active flight plan. 

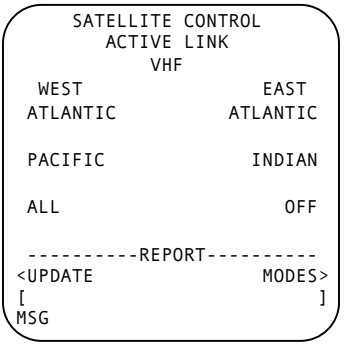
C.10	**Modes: Automatic Position Reporting**
C.10.1	From the AFIS MENU page, line select MODES. 
C.10.2	To enable or disable automatic position reporting, line select POS REPORT. The current status of the feature displays in green. When a change is made, the new selection displays in yellow and UPDATE displays in the lower left corner of the screen. After line selecting UPDATE to accept the change, the UPDATE prompt is removed. 
Note – The GDC generally recommends enabling automatic position reporting. Please refer to page 9 for more information regarding automatic position reporting.	

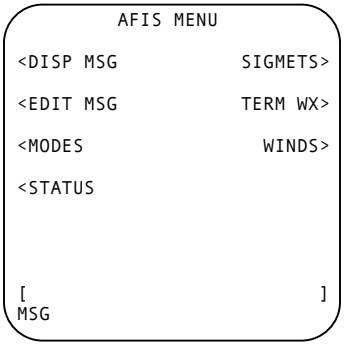
C.11	Modes: Automatic Terminal Weather Updating
Note – With this service enabled, the GDC sends to the aircraft all hourly terminal weather reports and forecasts for requested airports at approximately 15 minutes after each hour. To enable automatic terminal weather updating, select WX UPDATE to AUTO. Then enter the desired airport identifiers on the TERMINAL WX page and line select XMIT REQ. To disable automatic weather updating, select WX UPDATE to OFF. Then return to the TERMINAL WX page and line select XMIT REQ again to inform the GDC to stop sending updated terminal weather. Automatic position reporting must also be enabled for automatic terminal weather updating to function properly.	
C.11.1	From the AFIS MENU page, line select MODES. 
C.11.2	To enable or disable automatic weather updating, line select WX UPDATE. The current status of the feature displays in green. When a change is made, the new selection displays in yellow and UPDATE displays in the lower left corner of the screen. After line selecting UPDATE to accept the change, the UPDATE prompt is removed. 

C.12	**Modes: VHF Control**
C.12.1	From the AFIS MENU page, line select MODES. 
C.12.2	Line select VHF CTRL. 

C.12.3	Line select each VHF network to set the desired mode. If one network is set to MANUAL, the other networks are automatically set to OFF. The current status of the feature displays in green. When a change is made, the new selection displays in yellow and UPDATE displays in the lower left corner of the screen. After line selecting UPDATE to accept the change, the UPDATE prompt is removed. 
Note – The ARINC and SITA/AVICOM options should be selected to AUTO to allow the AFIS DMU to automatically switch to the appropriate network. The AIR CANADA option should be selected to OFF because the Air Canada network has been decommissioned.	

C.13	**Modes: Satellite Control**
C.13.1	From the AFIS MENU page, line select MODES. 
C.13.2	Line select SAT CTRL. 

C.13.3	Line select each satellite option to set the desired mode. The current status of each option displays in green. When a change is made, the new selection displays in yellow and UPDATE displays in the lower left corner of the screen. After line selecting UPDATE to accept the change, the UPDATE prompt is removed. 
Note – The GDC generally recommends against selecting one specific satellite. If satellite functionality is desired select ALL; if no satellite functionality is desired, select OFF.	
Note – If the aircraft has an Aero-H, Aero-H+, or Aero-I satellite system installed, the only options available will be ALL or OFF.	

C.14	**AFIS Status**
C.14.1	From the AFIS MENU page, line select STATUS. 
C.14.2	If no AFIS faults exist, STATUS OK displays in the center of the screen. 

Note – Possible AFIS faults include the following:

NO VHF COMM: VHF communications not available.

NO SAT COMM: Satellite communications not available.

VHF DISABLE: VHF communications disabled.

SAT DISABLE: Satellite communications disabled.

DMU FAULT: AFIS DMU requires maintenance.

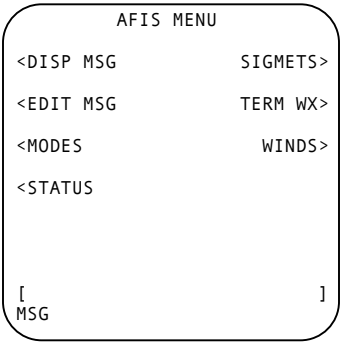
MODEM FAIL: AFIS DMU transceiver requires maintenance.

CONFIG FAIL: AFIS DMU configuration module requires maintenance.

UP LINK FAIL: Transient communications failure. Retransmit message or request.

DN LINK FAIL: Transient communications failure. Retransmit message or request.

C.15	AFIS System Messages
C.15.1	AFIS system messages will display on the CDU message line and on the MESSAGES page.



Note – Possible AFIS system messages include the following:

AFIS: New AFIS information is available.

AFIS FPLN LOADED: An AFIS flight plan had been loaded.

AFIS FPLN UPDATED: An AFIS flight plan has been updated.

MSG: A message is available on the CDU message page.

Appendix A – Air Traffic Services Airports

United States

AIRPORT	CITY, STATE	PDC	D-ATIS	TWIP
KABQ	Albuquerque, NM	√	√	√
KATL	Atlanta, GA	√	√	√
KAUS	Austin, TX	√	√	
KBDL	Bradley, CT	√	√	
KBNA	Nashville, TN	√	√	√
KBOS	Boston, MA	√	√	√
KBUF	Buffalo, NY	√	√	
KBUR	Burbank, CA	√	√	
KBWI	Baltimore, MD	√	√	√
KCLE	Cleveland, OH	√	√	√
KCLT	Charlotte, NC	√	√	√
KCMH	Columbus, OH	√	√	√
KCVG	Cincinnati, OH	√	√	√
KDAL	Dallas (Love), TX			√
KDAY	Dayton, OH			√
KDCA	Washington (Nat'l), DC	√	√	√
KDEN	Denver, CO	√	√	√
KDFW	Dallas-Fort Worth, TX	√	√	√
KDTW	Detroit, MI	√	√	√
KELP	El Paso, TX	√	√	
KEWR	Newark, NJ	√	√	
KFLL	Fort Lauderdale, FL	√	√	√
KGSO	Greensboro, NC	√	√	
KHOU	Houston (Hobby), TX			√
KIAD	Washington (Dulles), DC	√	√	√
KIAH	Houston (Intercont'l), TX	√	√	√
KICT	Wichita, KS			√
KIND	Indianapolis, IN	√	√	√
KJFK	New York (JFK), NY	√	√	
KLAS	Las Vegas, NV	√	√	
KLAX	Los Angeles, CA	√	√	
KLGA	New York (LaGuardia), NY	√	√	
KMCI	Kansas City, MO	√	√	√
KMCO	Orlando (Int'l), FL	√	√	√
KMDW	Chicago (Midway), IL	√	√	
KMEM	Memphis, TN	√	√	√
KMIA	Miami, FL	√	√	√
KMKE	Milwaukee, WI	√	√	√
KMSP	Minneapolis-St. Paul, MN	√	√	√
KMSY	New Orleans, LA	√	√	√

United States

AIRPORT	CITY, STATE	PDC	D-ATIS	TWIP
KOAK	Oakland, CA	√	√	
KOKC	Oklahoma City, OK			√
KONT	Ontario, CA	√	√	
KORD	Chicago (O'Hare), IL	√	√	√
KPBI	West Palm Beach, FL			√
KPDX	Portland, OR	√	√	
KPHL	Philadelphia, PA	√	√	√
KPHX	Phoenix, AZ	√	√	
KPIT	Pittsburgh, PA	√	√	√
KRDU	Raleigh-Durham, NC	√	√	√
KSAN	San Diego, CA	√	√	
KSAT	San Antonio, CA	√	√	
KSDF	Louisville, KY	√	√	√
KSEA	Seattle-Tacoma, WA	√	√	
KSFO	San Francisco, CA	√	√	
KSJC	San Jose, CA	√	√	
KSLC	Salt Lake City, UT	√	√	√
KSMF	Sacramento, CA	√	√	
KSNA	Orange County, CA	√	√	
KSTL	St. Louis, MO	√	√	√
KTEB	Teterboro, NJ	√	√	
KTPA	Tampa, FL	√	√	√
KTUL	Tulsa, OK	√	√	√
TJSJ	San Juan, PR	√	√	

Canada

AIRPORT	CITY	PDC	D-ATIS	TWIP
CYEG	Edmonton		√	
CYHM	Hamilton		√	
CYHZ	Halifax		√	
CYLW	Kelowna		√	
CYMX	Mirabel		√	
CYOW	Ottawa		√	
CYQB	Quebec City		√	
CYQM	Moncton		√	
CYQR	Regina		√	
CYQT	Thunder Bay		√	
CYQX	Gander		√	
CYUL	Montreal		√	
CYVR	Vancouver		√	
CYWG	Winnipeg		√	
CYXE	Saskatoon		√	

Canada

AIRPORT	CITY	PDC	D-ATIS	TWIP
CYYC	Calgary		√	
CYYJ	Victoria		√	
CYYT	St. John's		√	
CYYZ	Toronto		√	

Europe

AIRPORT	CITY	PDC	D-ATIS	TWIP
	GERMANY			
EDDB	Berlin – Schonefeld		√	
EDDF	Frankfurt		√	
EDDG	Munster		√	
EDDH	Hamburg		√	
EDDI	Berlin – Tempelhof		√	
EDDK	Cologne		√	
EDDL	Dusseldorf		√	
EDDM	Munich		√	
EDDN	Nuremberg		√	
EDDP	Leipzig		√	
EDDS	Stuttgart		√	
EDDT	Berlin – Tegel		√	
EDDV	Hannover		√	
EDDW	Bremen		√	
	NORWAY			
ENGM	Oslo		√	

Asia / Pacific

AIRPORT	CITY	PDC	D-ATIS	TWIP
	CHINA			
VHHH	Hong Kong		√	
	NEW ZEALAND			
NZAA	Auckland		√	
NZCH	Christchurch		√	
NZWN	Wellington		√	
	SINGAPORE			
WSSS	Singapore		√	
	THAILAND			
VTBD	Bangkok		√	
VTCC	Chiang Mai		√	
VTSS	Hat Yai		√	
VTSP	Phuket		√	

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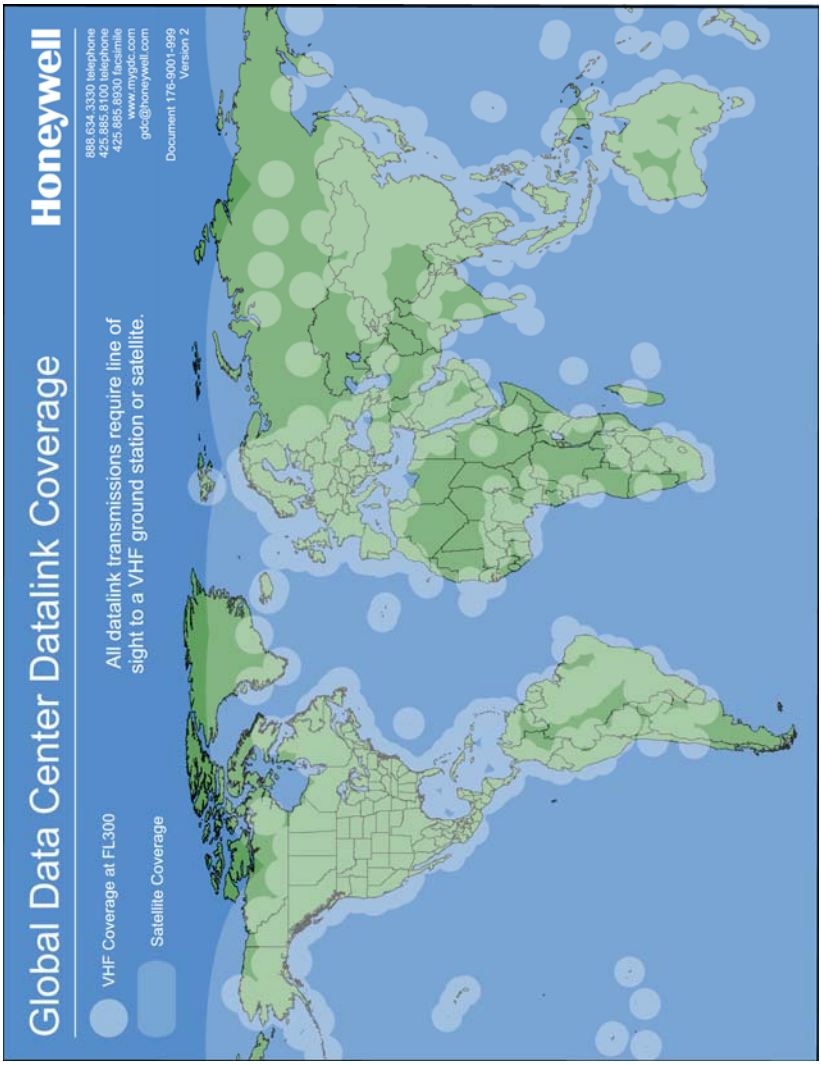
Appendix B – GDC Datalink Coverage Map



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