

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

| MANUFACTURER | MODEL | GLOBAL TYPE DESIGNATOR |
|-------------------|---|------------------------|
| DASSAULT (cont) | MYSTERE FALCON 900 B | DA90B |
| | MYSTERE FALCON 900 HEAVY | DA90H |
| | MYSTERE FALCON 900B HEAVY | DA90BH |
| | MYSTERE FALCON 900 EX | DA90EX |
| BEECHCRAFT | KING AIR E90 | BE90 |
| | KING AIR 200 | BE20H |
| | KING AIR 300 | BE30 |
| | KING AIR 350 | BE35 |
| | KING AIR 400 | BE40 |
| | KING AIR 400A | BE400A |
| | KING AIR 400A (Increased landing WT.) | BE400H |
| BOEING | 727-100 (JT8D-7 ENGINES) | B727D7 |
| BRITISH AEROSPACE | BAE 146-100 | BA461 |
| | BAE 146-200 | BA46 |
| | BAE 146-300 | BA463 |
| | BAE HS126-600A | HS600A |
| | BAE HS126-700A | HS700A |
| | BAE HS126-700B | HS700B |
| | BAE HS126-800A | HS800A |
| | BAE HS126-800B | HS800B |
| | BAE1000 | BA1000 |
| | JETSTREAM 3100 | BA31 |
| | JETSTREAM 3200 | BA32 |
| CANADAIR | CHALLENGER 600 | CL600 |
| | CHALLENGER 600W (WINGLETS) | CL600W |
| | CHALLENGER 601 | CL601 |
| | CHALLENGER 601-3A | CL61 |
| | CHALLENGER 601-3A (45,250 RAMP WT.) | CL61H |
| CESSNA | CITATION I 500 | CE500 |
| | CITATION I 501 | CE501 |
| | CITATION II 550 | CE550 |
| | CITATION II 550 (New Cruise mode) | CE550A |
| | CITATION II 550 (Increased Max WT) | CE550H |
| | CITATION II 550 (New Cruise mode Increased Max WT) | CE550I |
| | CITATION II S550 | S550 |
| | CITATION II S550H | S550H |

TABLE 4-1 (Sheet 2 of 3)

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| MANUFACTURER | MODEL | GLOBAL TYPE DESIGNATOR |
|----------------------------------|--|------------------------|
| CESSNA (cont) | CITATION III 650 | CE650 |
| | CITATION III 650A (SB 13 & 14) | CE650A |
| | CITATION III 650 HEAVY | CE650H |
| | CITATION III 650 HEAVY (Increased ZFW) | CE650Z |
| | CITATION V 560 | CE560 |
| | CITATION VII 650 | CE657 |
| | CITATION XL | CE560X |
| | CITATION X | CE 750 |
| DORNIER | 228-201 | D2281 |
| | 228-202 | D2282 |
| EMBRAER | 120 PW118 | E120 |
| | 120A PW118A | E120A |
| | 120A PW118A | EMB120 |
| GULFSTREAM | GULFSTREAM 1 | G1 |
| | GULFSTREAM II WITH HUSH KIT | GUII |
| | GULFSTREAM II WITH TIP TANKS | G2TT |
| | GULFSTREAM III | GUIII |
| | GIII ASC70 | GIII70 |
| | GULFSTREAM IV | G4 |
| | GULFSTREAM IV W/MACH.85 & .86 | G4A |
| ISRAEL AIRCRAFT INDUSTRIES | WESTWIND 1124 | W1124 |
| | WESTWIND 1124A | W1124A |
| | WESTWIND 1124 W/AFC 1076 | W1124I |
| | WESTWIND 1124 ASTRA | W1125 |
| | ASTRA JET | AJ25 |
| | ASTRA JET (INCREASED MAX WT) | AJ25H |
| | LEAR | LEARJET 31 |
| LEARJET 31A | | LE31A |
| LEARJET 31A INCREASED ZFW-13,000 | | LE31AZ |
| LEARJET 35A | | LE35 |
| LEARJET 36A | | LE36 |
| LEARJET 55 ECR 2431 | | LE55 |
| LEARJET 55 ECR 2554 | | LE55A |
| LEAR (cont) | | LEARJET 55C |
| LOCKHEED JETSTAR | GARRET 731 | JET731 |
| MITSUBISHI | MU300 DIAMOND 1 | DIAM1 |
| SABRELINER | SABRELINER 60 | SABR60 |
| | SABRELINER 65 | SABR65 |
| | SABRELINER 80 | SABR80 |

TABLE 4-1 (Sheet 3 of 3)

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**4.1 CONFIGURATION MODULE PROGRAMMING FOR GNS-500A SERIES 4/5 WITH DMU
P/N 42000-XX-XX**

1. Install test connector P/N 12870-1 to the front of the DMU on J102.
2. Turn system on. Press the ENTER Key to accept DATE, GMT, and Position.
3. Press the DATA Key to display the AFIS MENU Page. See Figure 4-1.

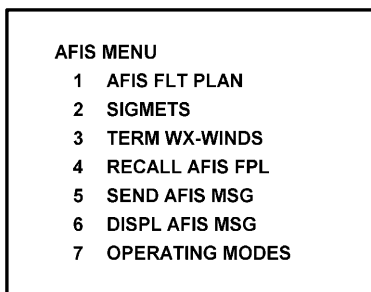


Figure 4-1

4. Use the UP or DOWN Arrow Key to position the cursor over Option 4, RECALL AFIS FPL and press the ENTER Key. The RECALL AFIS FPL Page appears. Use the UP or DOWN Arrow Key to position the cursor over the DATE field and enter 357777. Press the ENTER Key. See Figure 4-2.

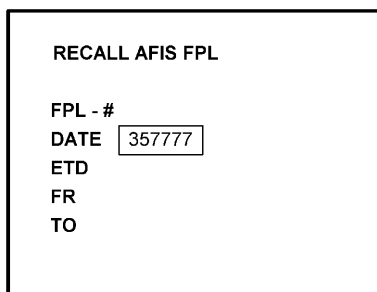


Figure 4-2

5. Select the AFIS configuration to be read or modified from the AFIS Configuration Menu Page (Figure 4-3) and press the ENTER Key.

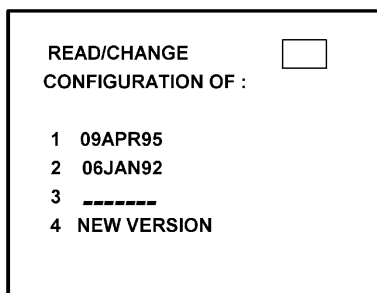
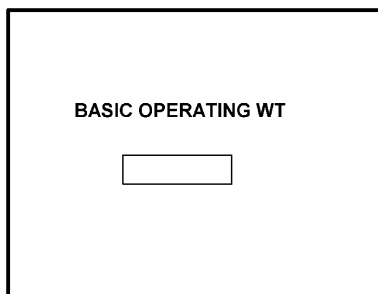


Figure 4-3

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The dates of previously entered configurations are shown in Options 1 to 3. The newest configuration date appears first. Option 4 allows for the entry of a new configuration. Select Options 1 to 4 as desired and Figure 4-4 will be displayed.

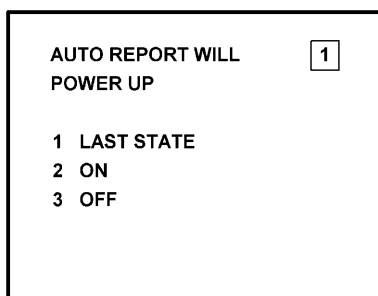
6. Insert the basic operating weight and press ENTER. See Figure 4-4.



A rectangular box containing the text "BASIC OPERATING WT" centered at the top. Below the text is a horizontal rectangular input field.

Figure 4-4

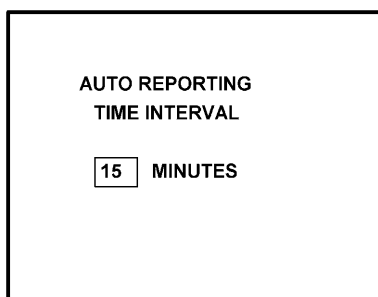
7. Insert the default for Auto Report and press ENTER. See Figure 4-5.



A rectangular box containing the text "AUTO REPORT WILL POWER UP" at the top. To the right of this text is a small square box containing the number "1". Below this is a list of three options: "1 LAST STATE", "2 ON", and "3 OFF".

Figure 4-5

8. Insert 15 as the Auto Reporting time interval unless advised differently by the pilot/operator and press ENTER. See Figure 4-6.

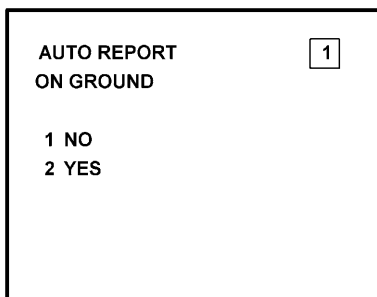


A rectangular box containing the text "AUTO REPORTING TIME INTERVAL" at the top. Below this text is a small square box containing the number "15", followed by the word "MINUTES".

Figure 4-6

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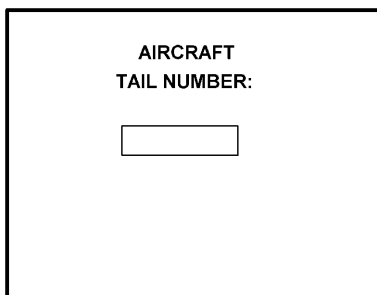
9. This step is applicable only to DMU P/N 42000-03-03 and 42000-04-03. Select Option 1 if reports are not wanted on the ground. Select Option 2 if reports on the ground are required. See Figure 4-7.



A rectangular window with a black border. The text inside is as follows: 'AUTO REPORT ON GROUND' at the top left, a small square box containing the number '1' at the top right, and two options listed below: '1 NO' and '2 YES'.

Figure 4-7

10. Insert complete aircraft registration number (tail number) in the cursor field and press ENTER. See Figure 4-8.



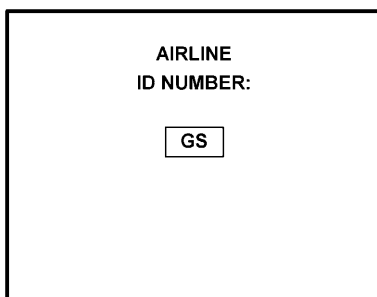
A rectangular window with a black border. The text inside is: 'AIRCRAFT TAIL NUMBER:' centered at the top, and a horizontal rectangular input field centered below it.

Figure 4-8

11. Insert GS as the Airline ID number and press ENTER. See Figure 4-9.

NOTE:

Currently, **GS** is the only valid entry and may change at a future time.



A rectangular window with a black border. The text inside is: 'AIRLINE ID NUMBER:' centered at the top, and a horizontal rectangular input field centered below it containing the text 'GS'.

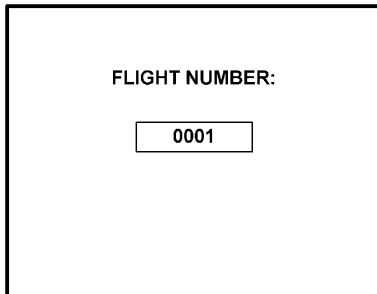
Figure 4-9

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12. In the Flight Number cursor field, insert the number 0001 as shown in Figure 4-10. Press ENTER.

NOTE:

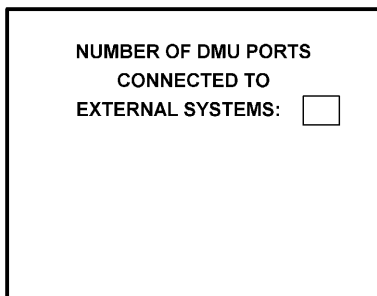
Currently, **0001** is the only valid entry and may change at a future time.



A rectangular box representing a terminal screen. At the top center, the text "FLIGHT NUMBER:" is displayed. Below this text, there is a smaller rectangular input field containing the number "0001".

Figure 4-10

13. This step is only applicable to DMU P/N 42000-01-01 and 42000-02-02. Determine the number of NMUs connected to the DMU (there are a maximum of 3), insert the number in the cursor field, and press ENTER. See Figure 4-11.



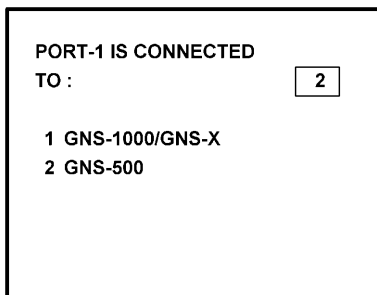
A rectangular box representing a terminal screen. The text "NUMBER OF DMU PORTS CONNECTED TO EXTERNAL SYSTEMS:" is centered at the top. Below this text, there is a small, empty square input field.

Figure 4-11

14. Complete this step for all other versions. Insert 2 as shown in Figure 4-12 to indicate that Port 1 is connected to the GNS-500A system and press ENTER.

NOTE:

GNS-X applies also to GNS-XES, GNS-XL and GNS-XLS.



A rectangular box representing a terminal screen. The text "PORT-1 IS CONNECTED TO :" is at the top left. To its right is a small rectangular input field containing the number "2". Below this, there is a list of options: "1 GNS-1000/GNS-X" and "2 GNS-500".

Figure 4-12

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15. If applicable, insert 2 to designate that Port 2 is connected to the GNS-500A system. Press ENTER. See Figure 4-13a for DMU P/N 42000-01-01 and 42000-02-02. See Figure 4-13b for DMU P/N 42000-03-03 and 42000-04-03.

NOTE:

GNS-X applies also to GNS-XES, GNS-XL and GNS-XLS.

PORT-2 IS CONNECTED
TO : 2

1 GNS-1000/GNS-X
2 GNS-500

Figure 4-13A

PORT-2 IS CONNECTED
TO : 2

1 GNS-1000/GNS-X
2 GNS-500
3
4 NONE

Figure 4-13B

NOTE:

Program for Port 3 as necessary. Press ENTER to continue.

16. To designate Port 1 as the Master 422 Port, insert 1 and press ENTER. See Figure 4-14.

AFIS SYSTEM USES
AS MASTER PORT : 1

1 PORT 1
2 PORT 2
3 PORT 3

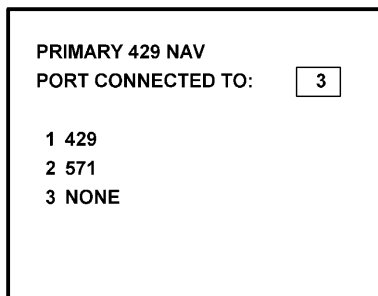
Figure 4-14

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NOTE

The master port refers to the use of one port by the software to have priority over the data from other ports (i.e. CDU2). Global recommends use of Port 1.

17. The 429 port option is not applicable to DMU P/N 42000-XX-XX. This page will only appear if DMU P/N 42000-03-03 or 42000-04-03 is installed. If applicable, insert 3 and press ENTER. See Figure 4-15.

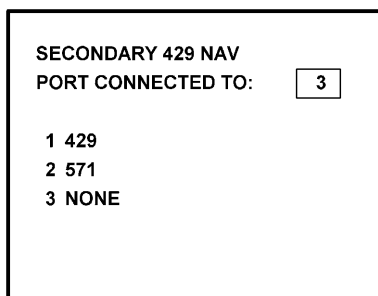


PRIMARY 429 NAV
PORT CONNECTED TO:

1 429
2 571
3 NONE

Figure 4-15

18. The 429 port option is not applicable to DMU P/N 42000-XX-XX. This page will only appear if DMU P/N 42000-03-03 or 42000-04-03 is installed. If applicable, insert 3 and press ENTER. See Figure 4-16.

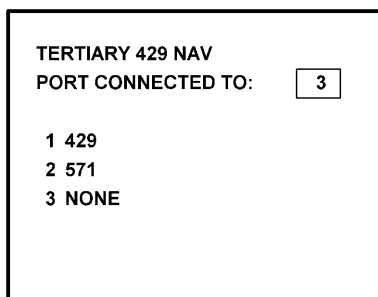


SECONDARY 429 NAV
PORT CONNECTED TO:

1 429
2 571
3 NONE

Figure 4-16

19. The 429 port option is not applicable to DMU P/N 42000-XX-XX. This page will only appear if DMU P/N 42000-03-03 or 42000-04-03 is installed. If applicable, insert 3 and press ENTER. See Figure 4-17.



TERTIARY 429 NAV
PORT CONNECTED TO:

1 429
2 571
3 NONE

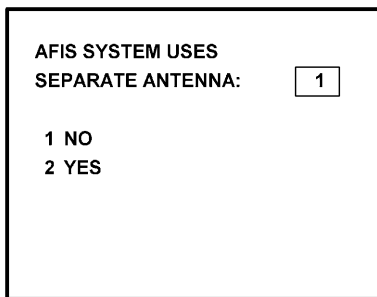
Figure 4-17

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20. Select whether the AFIS system is using a separate antenna and press ENTER. See Figure 4-18.

NOTE:

The Antenna Switching Unit (ASU) allows the AFIS system to share an antenna with the VHF Com or use its own antenna.



AFIS SYSTEM USES
SEPARATE ANTENNA:

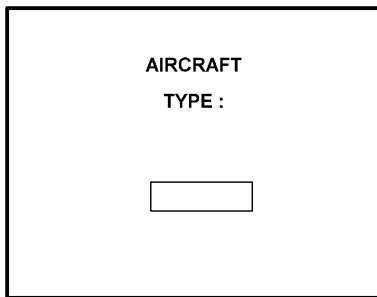
1 NO
2 YES

Figure 4-18

21. Insert type designator as listed in [Table 4-1](#) and press ENTER. See Figure 4-19.

NOTE:

If the aircraft type is not listed in [Table 4-1](#), contact Global Data Center to obtain type designator.



AIRCRAFT
TYPE :

Figure 4-19

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22. Select Option 1 for ARINC network, Option 2 for SITA or AVICOM network. Press ENTER to continue. See Figure 4-20.

NOTE:

Air Canada network is no longer active.

| | |
|---------------------------------------|---|
| AFIS SYSTEM USES FOR DEFAULT FREQ: | 1 |
| 1 U.S. DEFAULT | |
| 2 EUROPEAN DEFAULT | |
| 3 AIR CANADA DEFAULT | |

Figure 4-20

23. Steps 23 and 24 are only applicable to Series 4/5 users with Fuel Flow option DMU P/N 42000-02-02 or 42000-04-03. If other versions of the DMU are used, proceed to Step 25. If applicable, select the number that corresponds to the number of engines on the aircraft and press the ENTER Key. See Figure 4-21.

| | |
|----------------|---|
| NO. OF ENGINES | 2 |
| 1 1 | |
| 2 2 | |
| 3 3 | |
| 4 4 | |

Figure 4-21

24. Fuel Flow Interface - Enter one of seven options. See Figure 4-22.

Using the Up and Down arrow keys, move the fuel flow sensor options into the stationary cursor field. Scroll through and press the ENTER Key to select the desired option.

| | |
|---------------------|-------------|
| FUEL FLOW INTERFACE | |
| 1 | NO SENSORS |
| 2 | FREQUENCY |
| 3 | PULSE WIDTH |
| 4 | PULSE DIFF. |

Figure 4-22 (page 1)

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| FUEL FLOW INTERFACE | |
|--------------------------|----------------|
| 2 | FREQUENCY |
| 3 | PULSE WIDTH |
| <input type="checkbox"/> | PULSE DIFF. |
| 5 | DC AMPLITUDE |
| 6 | AC AMPLITUDE |
| 7 | DC COMP. FREQ. |

Figure 4-22 (PAGE 2)

- (a) If Option 1 (NO SENSORS) is selected, the system will go to Step 25.
- (b) If Option 2 (FREQUENCY) is selected, Figure 4-23 appears. Select the appropriate manufacturer and scaling by using the Up and Down arrow keys to place the desired option in the cursor field. Press ENTER.

NOTE:

See [Section 1](#) to cross-reference the manufacturer part number to the fuel flow type and frequency scaling. LEAR stands for J.E.T. fuel flow manufacturer and AERO is AERO Systems.

| FREQUENCY SCALING (PPH/HZ) | |
|-------------------------------|--------------|
| <input type="checkbox"/> | 28.125, LEAR |
| 2 | 0.920, AERO |
| 3 | 1.200, AERO |
| 4 | 1.600, AERO |
| 5 | 3.200, AERO |

Figure 4-23 (PAGE 1)

| FREQUENCY SCALING (PPH/HZ) | |
|-------------------------------|-------------|
| 3 | 1.200, AERO |
| <input type="checkbox"/> | 1.600, AERO |
| 5 | 3.200, AERO |
| 6 | 4.800, AERO |
| 7 | 5.600, AERO |

Figure 4-23 (PAGE 2)

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(c) If Option 3 (PULSE WIDTH) is selected, Figure 4-24 is displayed. Use the Up and Down arrow keys to place the appropriate manufacturer/scaling in the cursor field. Press ENTER.

NOTE:

See [Section 1.3.2](#), SYSTEM SPECIFICATIONS, to cross-reference the fuel flow indicator/transmitter manufacturer's part number to the appropriate scaling values. ELD stands for ELDEC. See Figure 4-24.

| PULSE WIDTH SCALING (PPH/MS) | |
|---------------------------------|-------------|
| <input type="checkbox"/> 1 | 20.00, ELD |
| <input type="checkbox"/> 2 | 40.00, ELD |
| <input type="checkbox"/> 3 | 80.00, ELD |
| <input type="checkbox"/> 4 | 100.00, ELD |

Figure 4-24 (PAGE 1)

| PULSE WIDTH SCALING (PPH/MS) | |
|---------------------------------------|-------------|
| <input type="checkbox"/> 4 | 100.00, ELD |
| <input checked="" type="checkbox"/> 5 | 20.00, IDC |
| <input type="checkbox"/> 6 | 40.00, IDC |
| <input type="checkbox"/> 7 | 80.00, IDC |
| <input type="checkbox"/> 8 | 100.00, IDC |

Figure 4-24 (PAGE 2)

(d) If Option 4 (PULSE DIFF) is selected, Figure 4-25 is displayed. Use the Up and Down arrow keys to place the appropriate manufacturer/scaling in the cursor field. Press ENTER.

NOTE:

See [Section 1.3.2](#), SYSTEM SPECIFICATIONS, to cross-reference the fuel flow indicator/transmitter manufacturer's part number to the appropriate scaling values.

| PULSE DIFFERENCE SCALING (PPH/MS) | |
|---------------------------------------|-------------|
| <input checked="" type="checkbox"/> 1 | 20.00, ELD |
| <input type="checkbox"/> 2 | 40.00, ELD |
| <input type="checkbox"/> 3 | 80.00, ELD |
| <input type="checkbox"/> 4 | 100.00, ELD |

Figure 4-25

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(e) If Option 5 (DC AMPLITUDE) is selected, Figure 4-26 is displayed. Use the Up and Down arrow keys to place the appropriate manufacturer/scaling in the cursor field. Press ENTER.

NOTE:

See [Section 1.3.2](#), SYSTEM SPECIFICATIONS, to cross-reference the fuel flow indicator/transmitter manufacturer's part number to the appropriate scaling values. AMTK stands for AMETEK. CAN is Canadian Marconi, CON is Consolidated Airborne and RAG is Ragen Data System

| DC AMPLITUDE SCALING (PPH/V) | |
|---------------------------------|---------------|
| 1 | 480.000, AMTK |
| <input type="text" value="2"/> | 700.000, CAN |
| 3 | 900.000, CAN |
| 4 | 1600.000, CAN |
| 5 | 440.000, CON |

Figure 4-26 (PAGE 1)

| DC AMPLITUDE SCALING (PPH/V) | |
|---------------------------------|---------------|
| 6 | 960.000, CON |
| <input type="text" value="7"/> | 500.000, GULL |
| 8 | 440.000, IDC |
| 9 | 2000.000, IDC |
| 10 | 100.000, RAG |

Figure 4-26 (PAGE 2)

| DC AMPLITUDE SCALING (PPH/V) | |
|---------------------------------|--------------|
| 10 | 100.000, RAG |
| <input type="text" value="11"/> | 142.857, RAG |
| 12 | 283.114, RAG |
| 13 | 283.688, RAG |
| 14 | 400.000, RAG |

Figure 4-26 (PAGE 3)

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- (f) If Option 6 (AC AMPLITUDE) is selected, Figure 4-27 is displayed. Use the Up and Down arrow keys to place the appropriate manufacturer/scaling in the cursor field. Press ENTER.

NOTE:

See [Section 1.3.2](#), SYSTEM SPECIFICATIONS, to cross-reference the fuel flow indicator/transmitter manufacturer's part number to the appropriate scaling values. GE stands for General Electric.

| | |
|---------------------------------|--------------|
| AC AMPLITUDE SCALING (PPH/V) | |
| <input type="text" value="1"/> | 800.000, GE |
| <input type="text" value="2"/> | 2400.000, GE |
| <input type="text" value="3"/> | 1500.000, GE |

Figure 4-27

- (g) If Option 7 (DC COMP. FREQ.) is selected, Figure 4-28 is displayed. Use the Up and Down arrow keys to place the appropriate manufacturer/scaling in the cursor field. Press ENTER.

NOTE:

See [Section 1.3.2](#), SYSTEM SPECIFICATIONS, to cross-reference the fuel flow indicator/transmitter manufacturer's part number to the appropriate scaling values.

| | |
|--------------------------------------|-------------|
| DC COMP. FREQ. SCALING (PPH/HZ.V) | |
| <input type="text" value="1"/> | 34.506, 0.2 |

Figure 4-28

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25. This step is only applicable to DMU P/N 42000-03-03 and 42000-04-03. If other versions of DMU are used, proceed to Step 26.

Select the applicable special feature option and press the ENTER Key to continue. See Figure 4-29.

NOTE:

OFF/ON REPORTS = logging takeoff and landing times. OPTION 1 = customer defined non-standard AFIS features. OFF REPORT = logging takeoff times. NO OFF/ON REPORTS = no logging of takeoff and landing times.

SPECIAL FEATURES
SELECTION :

1 OFF/ON REPORTS
2 OPTION 1
3 OFF REPORT
2 NO OFF/ON REPORTS

Figure 4-29

26. Select whether stored weather will be retained in memory when power is interrupted. Press the ENTER Key to continue. See Figure 4-30.

WEATHER SAVE AT
POWER INTERUPT:

1 NO
2 YES

Figure 4-30

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27. This step is only applicable to DMU P/N 42000-03-03 and 42000-04-03. If other versions of the DMU are used, proceed to Step 30.

Select the desired option for Auto Weather update status at power up and press the ENTER Key. See Figure 4-31.

AUTO WEATHER WILL
POWER UP 1

1 LAST STATE
2 ON
3 OFF

Figure 4-31

28. This step is only applicable to Series 4/5 users with Satellite Data Communication System option DMU P/N 42000-03-03 and 42000-04-03. If other versions of the DMU are used, proceed to Step 30.

If applicable, select Satcom Option 2 and press the ENTER Key. See Figure 4-32.

If Option 1 is selected, proceed to Step 30. Option 3 (ARINC 741) and Option 4 (SATFONE) are not available for DMU P/N 42000-03-03 and 42000-04-03. These options apply to other FMS/DMU configurations discussed elsewhere.

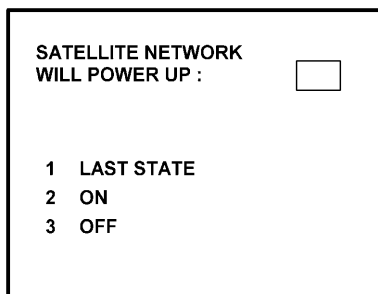
SATELLITE COMM
AVAILABLE

1 NO
2 GWS
3 ARINC 741
4 SATFONE

Figure 4-32

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29. This step is only applicable to Series 4/5 users with Satellite Data Communication System option DMU P/N 42000-03-03 and 42000-04-03. Also, Option 2 must have been selected in Step 28. If other versions of the DMU are used or Option 1 was selected in the previous step, proceed to Step 30. Select the desired option and press the ENTER Key. See Figure 4-33.



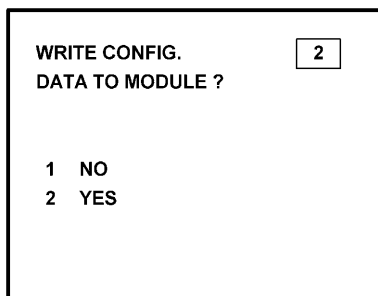
A rectangular menu box with a black border. The text inside is as follows:

SATellite NETWORK
WILL POWER UP :

1 LAST STATE
2 ON
3 OFF

Figure 4-33

30. Write configuration data to the Configuration Module by selecting 2 and press the ENTER Key. See Figure 4-34.



A rectangular menu box with a black border. The text inside is as follows:

WRITE CONFIG.
DATA TO MODULE ?

1 NO
2 YES

Figure 4-34

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

4.2 CONFIGURATION MODULE PROGRAMMING FOR GNS-500A SERIES 4/5 WITH DMU P/N 400-045500-XXXX.

NOTE:

The following configuration pages are not available for DMU P/N 400-045500-0210 or 400-045500-2010.

1. Install test connector P/N 12870-1 to the front of the DMU on J102.
2. Turn system on. Press the ENTER Key to accept DATE, GMT, and Position.
3. Press the DATA Key to display the AFIS MENU Page. See Figure 4-35.

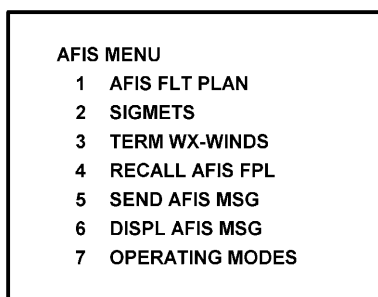


Figure 4-35

4. Use the UP or DOWN Arrow Key to position the cursor over Option 4, RECALL AFIS FPL and press the ENTER Key. The RECALL AFIS FPL Page appears. Use the UP or DOWN Arrow Key to position the cursor over the DATE field and enter 357777. Press the ENTER Key. See Figure 4-36.

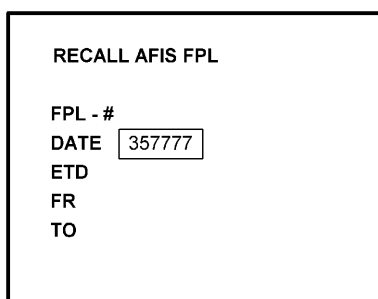
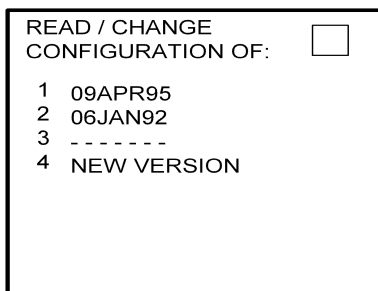


Figure 4-36

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

5. Select the AFIS configuration to be read or modified from the AFIS Configuration Menu Page (Figure 4-37) and press the ENTER Key.

The dates of previously entered configurations are shown in Options 1 to 3. The newest configuration date appears first. Option 4 allows for the entry of a new configuration. Select Options 1 to 4 as desired and Figure 4-38 will be displayed.

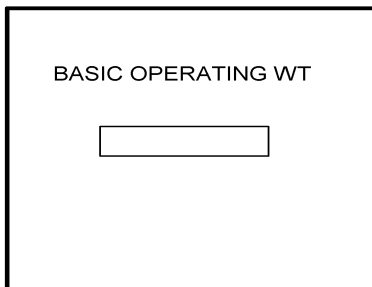


READ / CHANGE
CONFIGURATION OF:

- 1 09APR95
- 2 06JAN92
- 3 -----
- 4 NEW VERSION

Figure 4-37

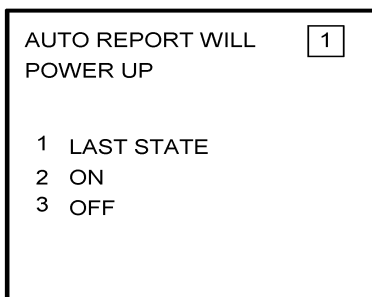
6. Insert the basic operating weight and press ENTER. See Figure 4-38.



BASIC OPERATING WT

Figure 4-38

7. Insert the default for Auto Report and press ENTER. See Figure 4-39.



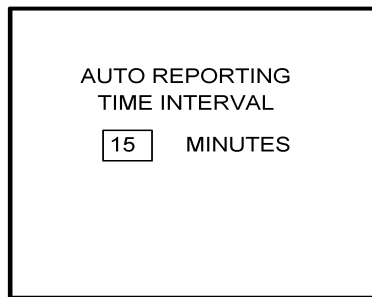
AUTO REPORT WILL POWER UP

- 1 LAST STATE
- 2 ON
- 3 OFF

Figure 4-39

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

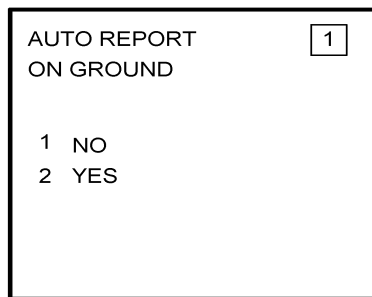
8. Insert 15 as the Auto Reporting time interval unless advised differently by the pilot/operator and press ENTER. See Figure 4-40.



AUTO REPORTING
TIME INTERVAL
 MINUTES

Figure 4-40

9. Select Option 1 if reports are not wanted on the ground. Select Option 2 if reports on the ground are required. See Figure 4-41.

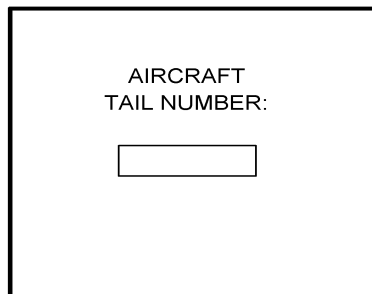


AUTO REPORT ON GROUND

1 NO
2 YES

Figure 4-41

10. Insert complete aircraft registration number (tail number) in the cursor field and press ENTER. See Figure 4-42.



AIRCRAFT
TAIL NUMBER:

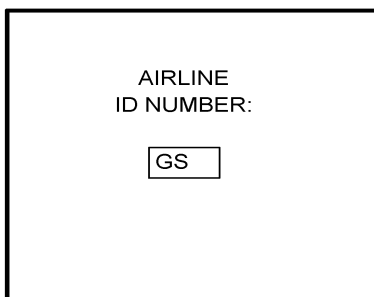
Figure 4-42

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

11. Insert GS as the Airline ID number and press ENTER. See Figure 4-43.

NOTE:

Currently, GS is the only valid entry and may change at a future time.



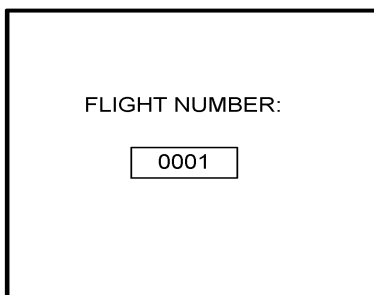
A rectangular box representing a terminal screen. Inside the box, the text "AIRLINE ID NUMBER:" is centered at the top. Below this text, the letters "GS" are entered within a smaller rectangular input field.

Figure 4-43

12. In the Flight Number cursor field, insert the number 0001 as shown in Figure 4-44. Press ENTER.

NOTE:

Currently, 0001 is the only valid entry and may change at a future time.



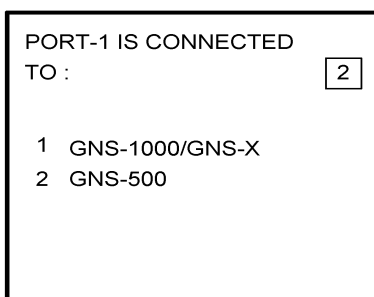
A rectangular box representing a terminal screen. Inside the box, the text "FLIGHT NUMBER:" is centered at the top. Below this text, the number "0001" is entered within a smaller rectangular input field.

Figure 4-44

13. Insert 2 as shown in Figure 4-45 to indicate that Port 1 is connected to the GNS-500A system and press ENTER.

NOTE:

GNS-X applies also to GNS-XES, GNS-XL and GNS-XLS.



A rectangular box representing a terminal screen. Inside the box, the text "PORT-1 IS CONNECTED TO :" is at the top. To the right of this text, the number "2" is entered within a small rectangular input field. Below this, there is a list of two options: "1 GNS-1000/GNS-X" and "2 GNS-500".

Figure 4-45

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

14. If applicable, insert 2 to designate that Port 2 is connected to the GNS-500A system. Press ENTER. See Figure 4-46.

NOTE:

GNS-X applies also to GNS-XES, GNS-XL and GNS-XLS.

PORT-2 IS CONNECTED
TO : 2

1 GNS-1000/GNS-X
2 GNS-500
3
4 NONE

Figure 4-46

15. If applicable, insert 2 to designate that Port 3 of connected to the GNS-500A system and press ENTER. See Figure 4-47.

PORT-3 IS CONNECTED
TO : 2

1 GNS-1000/GNS-X
2 GNS-500
3
4 NONE

Figure 4-47

16. To designate Port 1 as the Master 422 Port, insert 1 and press ENTER. See Figure 4-48.

NOTE:

The master port refers to the use of one port by the software to have priority over the data from other ports (i.e. CDU2). Honeywell recommends use of Port 1.

AFIS SYSTEM USES AS
MASTER 422 PORT: 1

1 PORT 1
2 PORT 2
3 PORT 3

Figure 4-48

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

17. The 429 port option is only applicable when other manufacturer's navigation systems are installed. If only GWS systems are used, insert 3 and press ENTER. See Figure 4-49.

PRIMARY 429 NAV
PORT CONNECTED TO:

1 429
2 571
3 NONE

Figure 4-49

18. The 429 port option is only applicable when other manufacturer's navigation systems are installed. If only Global systems are used, insert 3 and press ENTER. See Figure 4-50.

SECONDARY 429 NAV
PORT CONNECTED TO:

1 429
2 571
3 NONE

Figure 4-50

19. The 429 port option is only applicable when other manufacturer's navigation systems are installed. If only GWS systems are used, insert 3 and press ENTER. See Figure 4-51.

TERTIARY 429 NAV
PORT CONNECTED TO:

1 429
2 571
3 NONE

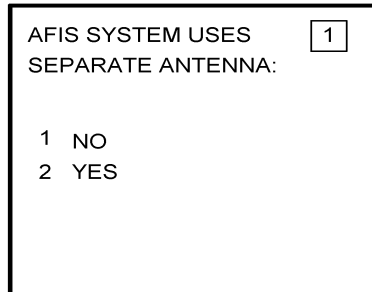
Figure 4-51

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

20. Select whether the AFIS system is using a separate antenna and press ENTER. See Figure 4-52.

NOTE:

The Antenna Switching Unit (ASU) allows the AFIS system to share an antenna with the VHF Comm or use its own antenna.



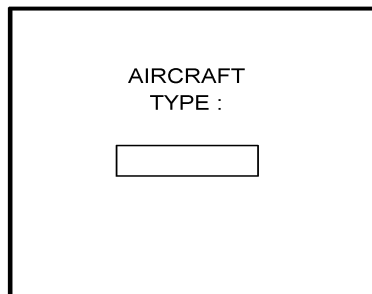
```
AFIS SYSTEM USES SEPARATE ANTENNA: 1
1 NO
2 YES
```

Figure 4-52

21. Insert type designator as listed in [Table 4-1](#) and press ENTER. See Figure 4-53.

NOTE:

If the aircraft type is not listed in [Table 4-1](#), contact Global Data Center to obtain type designator.



```
AIRCRAFT TYPE :
[ ]
```

Figure 4-53

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

22. Select Option 1 for ARINC network, Option 2 for SITA or AVICOM network. Press ENTER to continue. See Figure 4-54.

NOTE:

Air Canada network is no longer active.

| | |
|---------------------------------------|---|
| AFIS SYSTEM USES FOR DEFAULT FREQ: | 1 |
| 1 U.S. DEFAULT | |
| 2 EUROPEAN DEFAULT | |
| 3 AIR CANADA DEFAULT | |

Figure 4-54

23. Steps 23 and 24 are only applicable to Series 4/5 users with Fuel Flow option DMU P/N 400-045500-0002, 400-045500-0004 or 400-045500-0006. If other versions of the DMU are used, proceed to Step 25. If applicable, select the number that corresponds to the number of engines on the aircraft and press the ENTER Key. See Figure 4-55.

| | |
|----------------|---|
| NO. OF ENGINES | 2 |
| 1 1 | |
| 2 2 | |
| 3 3 | |
| 4 4 | |

Figure 4-55

24. Fuel Flow Interface - Enter one of seven options. See Figure 4-56.

Using the Up and Down arrow keys, move the fuel flow sensor options into the stationary cursor field. Scroll through and press the ENTER Key to select the desired option.

| | |
|---------------------|-------------|
| FUEL FLOW INTERFACE | |
| 1 | NO SENSORS |
| 2 | FREQUENCY |
| 3 | PULSE WIDTH |
| 4 | PULSE DIFF. |

Figure 4-56 (PAGE 1)

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

| | |
|-------------------------------------|----------------|
| FUEL FLOW INTERFACE | |
| 2 | FREQUENCY |
| 3 | PULSE WIDTH |
| <input checked="" type="checkbox"/> | PULSE DIFF. |
| 5 | DC AMPLITUDE |
| 6 | AC AMPLITUDE |
| 7 | DC COMP. FREQ. |

Figure 4-56 (PAGE 2)

- (a) If Option 1 (NO SENSORS) is selected, the system will go to Step 25.
- (b) If Option 2 (FREQUENCY) is selected, Figure 4-57 appears. Select the appropriate manufacturer and scaling by using the Up and Down arrow keys to place the desired option in the cursor field. Press ENTER.

NOTE:

See [Section 1.3.2](#), SYSTEM SPECIFICATIONS, to cross-reference the manufacturer part number to the fuel flow type and frequency scaling. LEAR stands for J.E.T. fuel flow manufacturer and AERO is AERO Systems.

| | |
|-------------------------------------|--------------|
| FREQUENCY SCALING (PPH/HZ) | |
| <input checked="" type="checkbox"/> | 28.125, LEAR |
| 2 | 0.920, AERO |
| 3 | 1.200, AERO |
| 4 | 1.600, AERO |
| 5 | 3.200, AERO |

Figure 4-57 (PAGE 1)

| | |
|-------------------------------------|-------------|
| FREQUENCY SCALING (PPH/HZ) | |
| 3 | 1.200, AERO |
| <input checked="" type="checkbox"/> | 1.600, AERO |
| 5 | 3.200, AERO |
| 6 | 4.800, AERO |
| 7 | 5.600, AERO |

Figure 4-57 (PAGE 2)

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

(c) If Option 3 (PULSE WIDTH) is selected, Figure 4-58 is displayed. Use the Up and Down arrow keys to place the appropriate manufacturer/scaling in the cursor field. Press ENTER.

NOTE:

See [Section 1.3.2](#), SYSTEM SPECIFICATIONS, to cross-reference the fuel flow indicator/transmitter manufacturer's part number to the appropriate scaling values. ELD stands for ELDEC. See Figure 4-58.

| | |
|---------------------------------|-------------|
| PULSE WIDTH SCALING (PPH/MS) | |
| <input type="checkbox"/> 1 | 20.00, ELD |
| <input type="checkbox"/> 2 | 40.00, ELD |
| <input type="checkbox"/> 3 | 80.00, ELD |
| <input type="checkbox"/> 4 | 100.00, ELD |

Figure 4-58 (PAGE 1)

| | |
|---------------------------------------|-------------|
| PULSE WIDTH SCALING (PPH/MS) | |
| <input type="checkbox"/> 4 | 100.00, ELD |
| <input checked="" type="checkbox"/> 5 | 20.00, IDC |
| <input type="checkbox"/> 6 | 40.00, IDC |
| <input type="checkbox"/> 7 | 80.00, IDC |
| <input type="checkbox"/> 8 | 100.00, IDC |

Figure 4-58 (PAGE 2)

(d) If Option 4 (PULSE DIFF) is selected, Figure 4-59 is displayed. Use the Up and Down arrow keys to place the appropriate manufacturer/scaling in the cursor field. Press ENTER.

NOTE:

See [Section 1.3.2](#), SYSTEM SPECIFICATIONS, to cross-reference the fuel flow indicator/transmitter manufacturer's part number to the appropriate scaling values.

| | |
|---------------------------------------|-------------|
| PULSE DIFFERENCE SCALING (PPH/MS) | |
| <input checked="" type="checkbox"/> 1 | 20.00, ELD |
| <input type="checkbox"/> 2 | 40.00, ELD |
| <input type="checkbox"/> 3 | 80.00, ELD |
| <input type="checkbox"/> 4 | 100.00, ELD |

Figure 4-59

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

(e) If Option 5 (DC AMPLITUDE) is selected, Figure 4-60 is displayed. Use the Up and Down arrow keys to place the appropriate manufacturer/scaling in the cursor field. Press ENTER.

NOTE:

See [Section 1.3.2](#), SYSTEM SPECIFICATIONS, to cross-reference the fuel flow indicator/transmitter manufacturer's part number to the appropriate scaling values. AMTK stands for AMETEK. CAN is Canadian Marconi, CON is Consolidated Airborne and RAG is Ragen Data System.

| | |
|---------------------------------|----------------|
| DC AMPLITUDE SCALING (PPH/V) | |
| 1 | 480.000, AMTK |
| <input type="checkbox"/> | 2 700.000, CAN |
| 3 | 900.000, CAN |
| 4 | 1600.000, CAN |
| 5 | 440.000, CON |

Figure 4-60 (PAGE 1)

| | |
|---------------------------------|-----------------|
| DC AMPLITUDE SCALING (PPH/V) | |
| 6 | 960.000, CON |
| <input type="checkbox"/> | 7 500.000, GULL |
| 8 | 440.000, IDC |
| 9 | 2000.000, IDC |
| 10 | 100.000, RAG |

Figure 4-60 (PAGE 2)

| | |
|---------------------------------|-----------------|
| DC AMPLITUDE SCALING (PPH/V) | |
| 10 | 100.000, RAG |
| <input type="checkbox"/> | 11 142.857, RAG |
| 12 | 283.114, RAG |
| 13 | 283.688, RAG |
| 14 | 400.000, RAG |

Figure 4-60 (PAGE 3)

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

- (f) If Option 6 (AC AMPLITUDE) is selected, Figure 4-61 is displayed. Use the Up and Down arrow keys to place the appropriate manufacturer/scaling in the cursor field. Press ENTER.

NOTE:

See [Section 1.3.2](#), SYSTEM SPECIFICATIONS, to cross-reference the fuel flow indicator/transmitter manufacturer's part number to the appropriate scaling values. GE stands for General Electric.

| | |
|---------------------------------|--------------|
| AC AMPLITUDE SCALING (PPH/V) | |
| <input type="checkbox"/> | 800.000, GE |
| <input type="checkbox"/> | 2400.000, GE |
| <input type="checkbox"/> | 1500.000, GE |

Figure 4-61

- (g) If Option 7 (DC COMP. FREQ.) is selected, Figure 4-62 is displayed. Use the Up and Down arrow keys to place the appropriate manufacturer/scaling in the cursor field. Press ENTER.

NOTE:

See [Section 1.3.2](#), SYSTEM SPECIFICATIONS, to cross-reference the fuel flow indicator/transmitter manufacturer's part number to the appropriate scaling values.

| | |
|--------------------------------------|-------------|
| DC COMP. FREQ. SCALING (PPH/HZ.V) | |
| <input type="checkbox"/> | 34.506, 0.2 |

Figure 4-62

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

25. Select the applicable special feature option and press the ENTER Key to continue. See Figure 4-63.

NOTE:

OFF/ON REPORTS = logging takeoff and landing times. OPTION 1 = customer defined non-standard AFIS features. OFF REPORT = logging takeoff times. NO OFF/ON REPORTS = no logging of takeoff and landing times.

SPECIAL FEATURES
SELECTION:

1 OFF/ON REPORTS
2 OPTION 1
3 OFF REPORT
4 NO OFF/ON REPORTS

Figure 4-63

26. Select whether stored flight plans, messages and weather will be retained in memory when power is interrupted. Press the ENTER Key to continue. See Figure 4-64.

SAVE FPL, MSG, WX
AT POWER INTERUPT:

1 NO
2 YES

Figure 4-64

27. Select the desired option for Auto Weather update status at power up and press the ENTER Key. See Figure 4-65.

AUTO WEATHER WILL
POWER UP

1 LAST STATE
2 ON
3 OFF

Figure 4-65

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

28. This step is only applicable to Series 4/5 users with Satellite Data Communication System option DMU P/N 400-045500-0003, 400-045500-0004, 400-045500-0005 or 400-045500-0006. If other versions of the DMU are used, proceed to Step 30.

If applicable, select Satcom Option 2 and press the ENTER Key. See Figure 4-66.

If Option 1 is selected, proceed to Step 30. Options 3 and 4 are only available with DMU P/N 400-045500-0005 or 400-045500-0006.

SATELLITE COMM AVAILABLE

1 NO
2 GWS
3 ARINC 741
4 SATFONE

Figure 4-66

29. Select the desired option and press the ENTER Key. See Figure 4-67.

SATELLITE NETWORK WILL POWER UP:

1 LAST STATE
2 ON
3 OFF

Figure 4-67

30. Write configuration data to the Configuration Module by selecting 2 and press the ENTER Key. See Figure 4-68.

WRITE CONFIG. DATA TO MODULE?

1 NO
2 YES

Figure 4-68

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

4.3 CONFIGURATION MODULE PROGRAMMING FOR GNS-1000, GNS-X, GNS-XEs, GNS-XL OR GNS-XLs WITH DMU P/N 42000-01-01 OR 42000-03-03

1. Install test connector P/N 12870-1 to the front of the DMU on J102.
2. Turn system on. Press the ENTER Key to accept DATE, GMT, and Position.
3. Press the PLAN Key or AFIS Key to display the AFIS MENU Page. See Figure 4-69 or Figure 4-70.

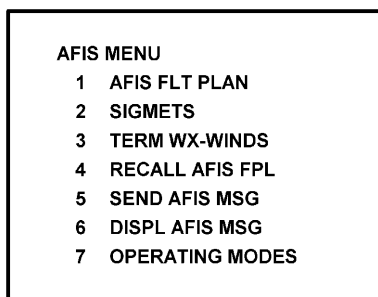


Figure 4-69

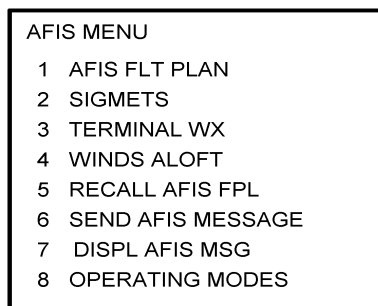


Figure 4-70

4. Use the UP or DOWN Arrow Key to position the cursor over the RECALL AFIS FPL option and press the ENTER Key. The RECALL AFIS FPL Page appears. Use the UP or DOWN Arrow Key to position the cursor over the DATE field and enter 357777. Press the ENTER Key. See Figure 4-71.

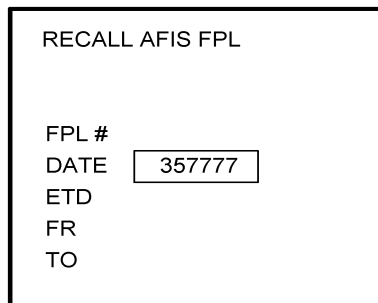
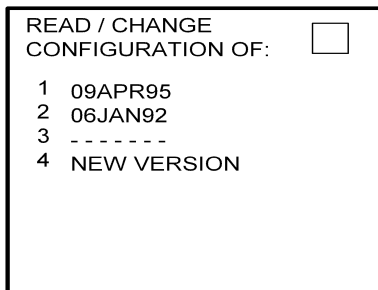


Figure 4-71

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

5. Select the AFIS configuration to be read or modified from the AFIS Configuration Menu Page (Figure 4-69) and press the ENTER Key.

The dates of previously entered configurations are shown in Options 1 to 3. The newest configuration date appears first. Option 4 allows for the entry of a new configuration. Select Options 1 to 4 as desired and Figure 4-72 will be displayed.

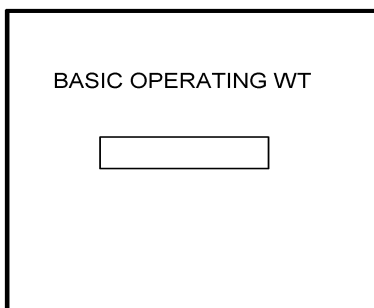


READ / CHANGE
CONFIGURATION OF:

- 1 09APR95
- 2 06JAN92
- 3 -----
- 4 NEW VERSION

Figure 4-72

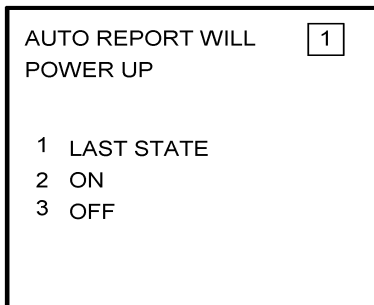
6. Insert the basic operating weight and press ENTER. See Figure 4-73.



BASIC OPERATING WT

Figure 4-73

7. Insert the default for Auto Report and press ENTER. See Figure 4-74.



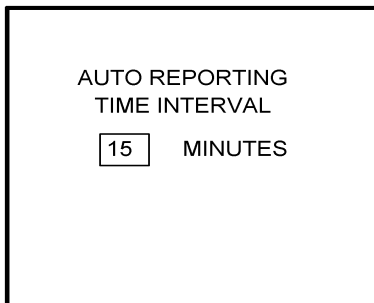
AUTO REPORT WILL 1
POWER UP

- 1 LAST STATE
- 2 ON
- 3 OFF

Figure 4-74

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

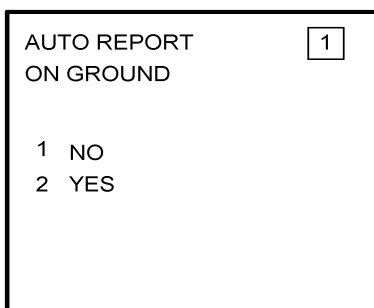
8. Insert 15 as the Auto Reporting time interval unless advised differently by the pilot/operator and press ENTER. See Figure 4-75.



AUTO REPORTING
TIME INTERVAL
 MINUTES

Figure 4-75

9. Select Option 1 if reports are not wanted on the ground. Select Option 2 if reports on the ground are required. See Figure 4-76.

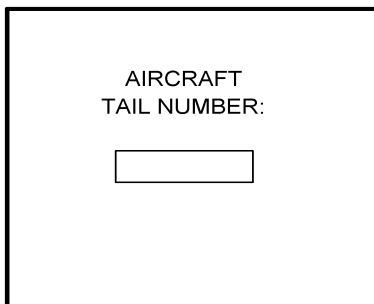


AUTO REPORT
ON GROUND

1 NO
2 YES

Figure 4-76

10. Insert complete aircraft registration number (tail number) in the cursor field and press ENTER. See Figure 4-77.



AIRCRAFT
TAIL NUMBER:

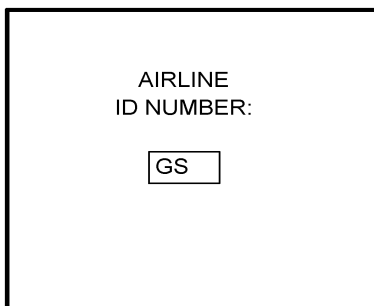
Figure 4-77

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

11. Insert GS as the Airline ID number and press ENTER. See Figure 4-78.

NOTE:

Currently, GS is the only valid entry and may change at a future time.



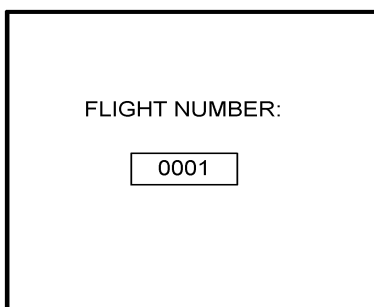
A rectangular box containing the text "AIRLINE ID NUMBER:" followed by a smaller rectangular input field containing the text "GS".

Figure 4-78

12. In the Flight Number cursor field, insert the number 0001 as shown in Figure 4-79. Press ENTER.

NOTE:

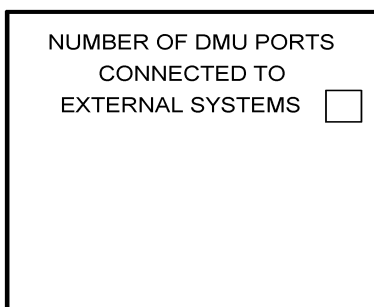
Currently, 0001 is the only valid entry and may change at a future time.



A rectangular box containing the text "FLIGHT NUMBER:" followed by a smaller rectangular input field containing the text "0001".

Figure 4-79

13. This step is only applicable to DMU P/N 42000-01-01. Determine the number of CDUs or NMUs connected to the DMU (there are a maximum of 3), insert the number in the cursor field, and press ENTER. See Figure 4-80.



A rectangular box containing the text "NUMBER OF DMU PORTS CONNECTED TO EXTERNAL SYSTEMS" followed by a small empty square input field.

Figure 4-80

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

14. Insert 1 as shown in Figure 4-81 to indicate that Port 1 is connected to the GNS-1000 or GNS-X system and press ENTER.

NOTE:

GNS-X applies also to GNS-XES, GNS-XL and GNS-XLS.

422 PORT-1 CONNECTED
TO : 1

1 GNS-1000/GNS-X
2 GNS-500

Figure 4-81

15. If applicable, insert 1 to designate that Port 2 is connected to the GNS-1000 or GNS-X system. Press ENTER. See Figure 4-82a for DMU P/N 42000-01-01. See Figure 4-82b for DMU P/N 42000-03-03.

NOTE:

GNS-X applies also to GNS-XES, GNS-XL and GNS-XLS.

422 PORT-2 CONNECTED
TO : 1

1 GNS-1000/GNS-X
2 GNS-500

Figure 4-82A

422 PORT-2 CONNECTED
TO : 1

1 GNS-1000/GNS-X
2 GNS-500
3
4 NONE

Figure 4-82B

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

16. If applicable, insert 1 to designate that Port 3 is connected to the GNS-1000 or GNS-X system. Press ENTER. See Figure 4-83a for DMU P/N 42000-01-01. See Figure 4-83b for DMU P/N 42000-03-03.

NOTE:

GNS-X applies also to GNS-XES, GNS-XL and GNS-XLS.

```
422 PORT-3 CONNECTED
TO : 

1 GNS-1000/GNS-X
2 GNS-500
```

Figure 4-83A

```
422 PORT-3 CONNECTED
TO : 

1 GNS-1000/GNS-X
2 GNS-500
3
4 NONE
```

Figure 4-83B

17. To designate Port 1 as the Master 422 Port, insert 1 and press ENTER. See Figure 4-84.

NOTE:

The master port refers to the use of one port by the software to have priority over the data from other ports (ie CDU2). Global recommends use of Port 1.

```
AFIS SYSTEM USES AS
MASTER 422 PORT: 

1 PORT 1
2 PORT 2
3 PORT 3
```

Figure 4-84

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

18. The 429 port option is not applicable to DMU P/N 42000-XX-XX. This page will only appear if DMU P/N 42000-03-03 is installed. If applicable, insert 3 and press ENTER. See Figure 4-85.

```
PRIMARY 429 NAV
PORT CONNECTED TO: 

1 429
2 571
3 NONE
```

Figure 4-85

19. The 429 port option is not applicable to DMU P/N 42000-XX-XX. This page will only appear if DMU P/N 42000-03-03 is installed. If applicable, insert 3 and press ENTER. See Figure 4-86.

```
PRIMARY 429 NAV
PORT CONNECTED TO: 

1 429
2 571
3 NONE
```

Figure 4-86

20. The 429 port option is not applicable to DMU P/N 42000-XX-XX. This page will only appear if DMU P/N 42000-03-03 is installed. If applicable, insert 3 and press ENTER. See Figure 4-87.

```
TERTIARY 429 NAV
PORT CONNECTED TO: 

1 429
2 571
3 NONE
```

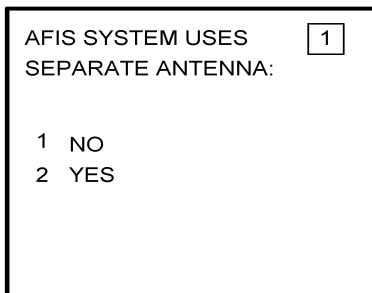
Figure 4-87

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

21. Select whether the AFIS system is using a separate antenna and press ENTER. See Figure 4-88.

NOTE:

The Antenna Switching Unit (ASU) allows the AFIS system to share an antenna with the VHF Comm or use its own antenna.



A rectangular menu box with a black border. At the top left, the text reads "AFIS SYSTEM USES SEPARATE ANTENNA:". To the right of this text is a small square box containing the number "1". Below the main text, there are two numbered options: "1 NO" and "2 YES".

Figure 4-88

22. Insert type designator as listed in [Table 4-1](#) and press ENTER. See Figure 4-89.

NOTE:

If the aircraft type is not listed in [Table 4-1](#), contact Global Data Center to obtain type designator.



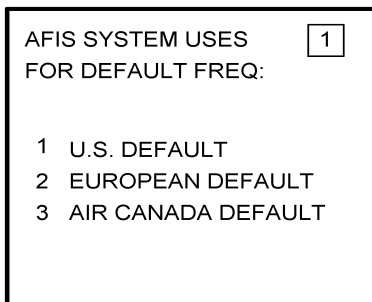
A rectangular menu box with a black border. In the center, the text reads "AIRCRAFT TYPE:". Below this text is a horizontal rectangular input field.

Figure 4-89

23. Select Option 1 for ARINC network, Option 2 for SITA or AVICOM network, or Option 3 for Air Canada network. Press ENTER to continue. See Figure 4-90.

NOTE:

Air Canada network is no longer active.



A rectangular menu box with a black border. At the top left, the text reads "AFIS SYSTEM USES FOR DEFAULT FREQ:". To the right of this text is a small square box containing the number "1". Below the main text, there are three numbered options: "1 U.S. DEFAULT", "2 EUROPEAN DEFAULT", and "3 AIR CANADA DEFAULT".

Figure 4-90

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

24. Fuel Flow option is not available for GNS-1000, GNS-X, GNS-XES, GNS-XL or GNS-XLS. Insert 1 and press the ENTER Key. See Figure 4-91.

| | | |
|------------------|---|--------------------------------|
| AFIS SYSTEM USES | | <input type="text" value="2"/> |
| 1 | 1 | |
| 2 | 2 | |
| 3 | 3 | |
| 4 | 4 | |

Figure 4-91

25. Fuel Flow option is not available for GNS-1000, GNS-X, GNS-XES, GNS-XL or GNS-XLS. Select 1 and press the ENTER Key. See Figure 4-92.

| | |
|--------------------------------|-------------|
| FUEL FLOW INTERFACE | |
| <input type="text" value="1"/> | NO SENSORS |
| 2 | FREQUENCY |
| 3 | PULSE WIDTH |
| 4 | PULSE DIFF. |

Figure 4-92

26. This step is only applicable to DMU P/N 42000-03-03. If other versions of DMU are used, proceed to Step 27. Select the applicable special feature option and press the ENTER Key to continue. See Figure 4-93.

NOTE:

OFF/ON REPORTS = logging takeoff and landing times. OPTION 1 = customer defined non-standard AFIS features. OFF REPORT = logging takeoff times. NO OFF/ON REPORTS = no logging of takeoff and landing times.

| | | |
|-----------------------------|-------------------|----------------------|
| SPECIAL FEATURES SELECTION: | | <input type="text"/> |
| 1 | OFF/ON REPORTS | |
| 2 | OPTION 1 | |
| 3 | OFF REPORT | |
| 4 | NO OFF/ON REPORTS | |

Figure 4-93

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

27. Select whether stored weather will be retained in memory when power is interrupted. Press the ENTER Key to continue. See Figure 4-94.

WEATHER SAVE AT
POWER INTERUPT:

1 NO
2 YES

Figure 4-94

28. This step is only applicable to DMU P/N 42000-03-03. If other versions of the DMU are used, proceed to Step 30. Select the desired option for Auto Weather update status at power up and press the ENTER Key. See Figure 4-95.

AUTO WEATHER WILL
POWER UP

1 LAST STATE
2 ON
3 OFF

Figure 4-95

29. This step is only applicable to GNS-1000, GNS-X, GNS-XES, GNS-XL or GNS-XLs with Satellite Data Communication System option DMU P/N 42000-03-03.

If applicable, select Satcom Option 2 and press the ENTER Key. See Figure 4-96. If Option 1 is selected, proceed to Step 31. Option 3 (ARINC 741) and Option 4 (SATFONE) are not available for DMU P/N 42000-03-03. These options apply to other FMS/DMU configurations discussed elsewhere.

SATELLITE COMM
AVAILABLE

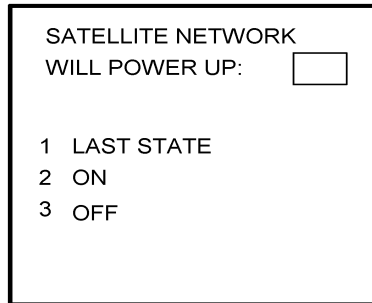
1 NO
2 GWS
3 ARINC 741
4 SATFONE

Figure 4-96

Global
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30. This step is only applicable to GNS-1000, GNS-X, GNS-XES, GNS-XL or GNS-XLs with Satellite Data Communication System option DMU P/N 42000-03-03. If other versions of the DMU are used, proceed to Step 31.

Select the desired option and press the ENTER Key. See Figure 4-97.

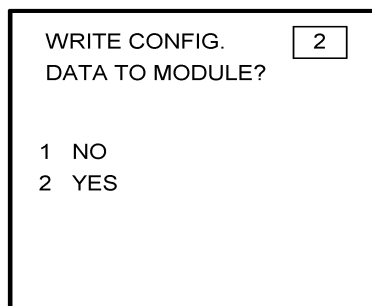


SATELLITE NETWORK
WILL POWER UP:

1 LAST STATE
2 ON
3 OFF

Figure 4-97

31. Write configuration data to the Configuration Module by selecting 2 and press the ENTER Key. See Figure 4-98.



WRITE CONFIG. DATA TO MODULE?

1 NO
2 YES

Figure 4-98

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

4.4 CONFIGURATION MODULE PROGRAMMING FOR GNS-1000, GNS-X, GNS-XES, GNS-XL OR GNS-XLS WITH DMU P/N 400-045500-0001, 400-045500-0003 OR 400-045500-0005 AND OTHER FMS MANUFACTURES USING DMU P/N 400-045500-0001, 0002, -0003, -0004, -0005, -0006 OR -0130

1. Install test connector P/N 12870-1 to the front of the DMU on J102.
2. Turn system on. Press the ENTER Key to accept DATE, GMT, and Position.
 - (a) If DMU has been configured for ACARS proceed to step 4(a) otherwise step 3.
3. Press the PLAN Key or AFIS Key to display the AFIS MENU Page. See Figure 4-99 or Figure 4-100.

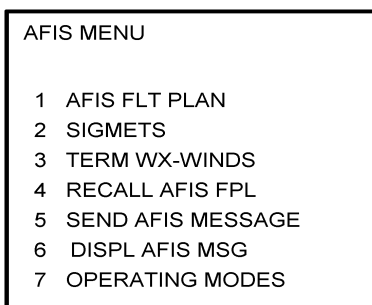


Figure 4-99

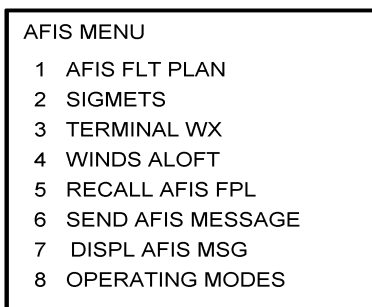


Figure 4-100

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

4. Use the UP or DOWN Arrow Key or Line >Select keys to position the cursor over the RECALL AFIS FPL option and press the ENTER Key. The RECALL AFIS FPL Page appears. Use the UP or DOWN Arrow Key or Line Select keys to position the cursor over the DATE field and enter 357777. Press the ENTER Key. See Figure 4-101.

| | |
|-----------------|-------------------------------------|
| RECALL AFIS FPL | |
| FPL # | |
| DATE | <input type="text" value="357777"/> |
| ETD | |
| FR | |
| TO | |

Figure 4-101

NOTE:

ITEMS 4(a) through 4(k) are only available for -0003 or -0130. For other part numbers skip to item 5.

- (a) Press the PLAN key or AFIS key to display the ACARS page. See Figure 4-102 or 4-103.

| | |
|-----------------|-------------------|
| ACARS MAIN MENU | |
| 1 - | PREFLIGHT DATA |
| 2 - | LOAD DATA |
| 3 - | ARRIVAL DATA |
| 4 - | REQUEST MENU |
| 5 - | RECEIVED MESSAGES |

Figure 4-102

| | |
|------------------|-------------------------|
| HH:MM INITIALIZE | |
| FLT# | <input type="text"/> CA |
| DEPT | FO |
| DEST | FA |
| ETD | ACM |
| ETE | |
| TRANSMIT | |

Figure 4-103

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

- (b) If ACARS page shown in [Figure 4-102](#) appears, press "1" key and the PREFLIGHT Data page, Figure 4-104 will appear. Otherwise proceed to step 4(h).

| PREFLT DATA | |
|---------------|---|
| FLT NO: | <input style="width: 50px;" type="text"/> |
| FLT RLS DATE: | |
| DEPT STN: | |
| DEST STN: | |
| ETE: | |
| UTC: | |

Figure 4-104

- (c) Insert a one digit number (eg. 1) in FLT NO: field and press ENTER key. Cursor will move FLT RLS DATE: field.
- (d) Insert a one digit number (eg. 1) in FLT RLS DATE: field and press ENTER key. Cursor will move to DEPT STN: field.
- (e) Insert a three character departure station identifier (eg. MCI) in DEPT STN: field and press ENTER key. Cursor will move to DEPT STN: field.
- (f) Insert a three character destination station identifier (eg. MCI) in DEST STN: field and press ENTER key. Cursor will move to ETE field.
- (g) Enter 3577 in ETE field and press ENTER key. See Figure 4-105. Proceed to step 5.

| PREFLT DATA | |
|---------------|--|
| FLT NO: | 0001 |
| FLT RLS DATE: | 01 |
| DEPT | MCI |
| DEST STN: | MCI |
| ETE: | <input style="width: 50px;" type="text" value="3577"/> |
| UTC: | |

Figure 4-105

- (h) Insert a three digit number (eg. 111) in FLT# field and press ENTER key. Cursor will move to DEPT field (see [Figure 4-106](#)).
- (i) Insert a three character departure identifier (eg. MCI) in DEPT field and press ENTER key. Cursor will move to DEST field.
- (j) Insert a three character destination identifier (eg MCI) in DEST field and press ENTER key. Cursor will move to ETD field.

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- (k) Enter 3577 in ETD field and press ENTER key. See Figure 4-106 and proceed to step 5.

| | | |
|----------|-----------------------------------|-----|
| HH:MM | INITIALIZE | |
| FLT# | 111 | CA |
| DEPT | MCI | FO |
| DEST | MCI | FA |
| ETD | <input type="text" value="3577"/> | ACM |
| ETE | | |
| TRANSMIT | | |

Figure 4-106

5. Select the AFIS configuration to be read or modified from the AFIS Configuration Menu Page (Figure 4-107) and press the ENTER Key.

The dates of previously entered configurations are shown in Options 1 to 3. The newest configuration date appears first. Option 4 allows for the entry of a new configuration. Select Options 1 to 4 as desired and Figure 4-108 will be displayed.

| | |
|------------------------------------|--------------------------|
| READ / CHANGE CONFIGURATION OF: | <input type="checkbox"/> |
| 1 | 09APR95 |
| 2 | 06JAN92 |
| 3 | ----- |
| 4 | NEW VERSION |

Figure 4-107

6. Insert the basic operating weight and press ENTER. See Figure 4-108.

| |
|----------------------|
| BASIC OPERATING WT |
| <input type="text"/> |

Figure 4-108

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

7. Insert the default for Auto Report and press ENTER. See Figure 4-109.

AUTO REPORT WILL POWER UP 1

1 LAST STATE
2 ON
3 OFF

Figure 4-109

8. Insert 15 as the Auto Reporting time interval unless advised differently by the pilot/operator and press ENTER. See Figure 4-110.

AUTO REPORTING
TIME INTERVAL

15 MINUTES

Figure 4-110

9. Select Option 1 if reports are not wanted on the ground. Select Option 2 if reports on the ground are required. See Figure 4-111.

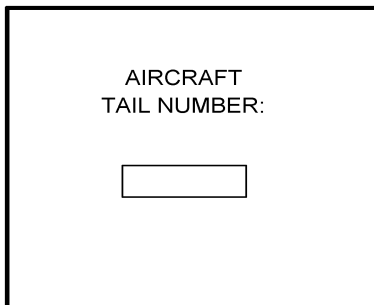
AUTO REPORT POWER UP 1

1 NO
2 YES

Figure 4-111

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10. Insert complete aircraft registration number (tail number) in the cursor field and press ENTER. See Figure 4-112.



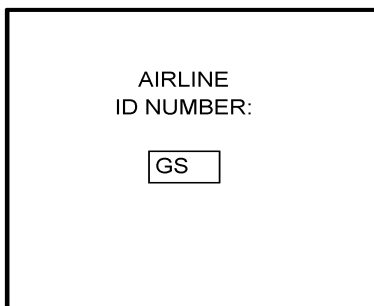
A rectangular box containing the text "AIRCRAFT TAIL NUMBER:" followed by a smaller, empty rectangular input field.

Figure 4-112

11. Insert GS as the Airline ID number and press ENTER. See Figure 4-113.

NOTE:

Currently, GS is the only valid entry except for the following: XJ for MESABA Airlines, DH for Atlantic Coast Aviation, Part Numbers 400-045500-0003 or 400-045500-0130 ONLY.



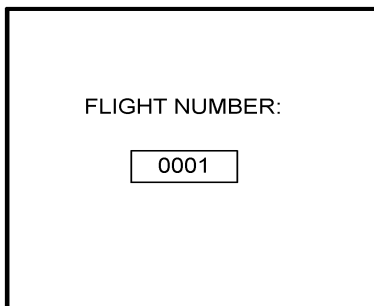
A rectangular box containing the text "AIRLINE ID NUMBER:" followed by a smaller rectangular input field containing the text "GS".

Figure 4-113

12. In the Flight Number cursor field, insert the number 0001 as shown in Figure 4-114. Press ENTER.

NOTE:

Currently, 0001 is the only valid entry and may change at a future time.



A rectangular box containing the text "FLIGHT NUMBER:" followed by a smaller rectangular input field containing the text "0001".

Figure 4-114

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

13. Insert 1 as shown in Figure 4-115 to indicate that Port 1 is connected to the GNS-1000, GNS-X, or other manufactures navigation system and press ENTER.

NOTE:

GNS-X applies also to GNS-XES, GNS-XL and GNS-XLS.

```
422 PORT-1 CONNECTED
TO : 

1 GNS-1000/GNS-X
2 GNS-500
```

Figure 4-115

14. If applicable, insert 1 to designate that Port 2 is connected to the GNS-1000 or GNS-X system. Press ENTER. If no Global systems are connected, select Option 4. See Figure 4-116.

NOTE:

GNS-X applies also to GNS-XES, GNS-XL and GNS-XLS.

```
422 PORT-2 CONNECTED
TO : 

1 GNS-1000/GNS-X
2 GNS-500
3
4 NONE
```

Figure 4-116

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

15. If applicable, insert 1 to designate that Port 3 is connected to the GNS-1000 or GNS-X system. Press ENTER. If no Global systems are connected, select Option 4. See Figure 4-117.

NOTE:

GNS-X applies also to GNS-XES, GNS-XL and GNS-XLS.

422 PORT-3 CONNECTED
TO : 1

1 GNS-1000/GNS-X
2 GNS-500
3
4 NONE

Figure 4-117

16. To designate Port 1 as the Master 422 Port, insert 1 and press ENTER. See Figure 4-118.

NOTE:

The master port refers to the use of one port by the software to have priority over the data from other ports (i.e. CDU2). Honeywell recommends use of Port 1.

AFIS SYSTEM USES AS
MASTER 422 PORT: 1

1 PORT 1
2 PORT 2
3 PORT 3

Figure 4-118

17. The 429 port option is only applicable when other manufacturer's navigation systems are installed. If only Global systems are used, insert 3 and press ENTER. See Figure 4-119.

PRIMARY 429 NAV
PORT CONNECTED TO: 3

1 429
2 571
3 NONE

Figure 4-119

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

18. The 429 port option is only applicable when other manufacturer's navigation systems are installed. If only Global systems are used, insert 3 and press ENTER. See Figure 4-120.

SECONDARY 429 NAV
PORT CONNECTED TO:

1 429
2 571
3 NONE

Figure 4-120

19. The 429 port option is only applicable when other manufacturer's navigation systems are installed. If only Global systems are used, insert 3 and press ENTER. See Figure 4-121.

TERTIARY 429 NAV
PORT CONNECTED TO:

1 429
2 571
3 NONE

Figure 4-121

20. Select whether the AFIS system is using a separate antenna and press ENTER. See Figure 4-122.

NOTE:

The Antenna Switching Unit (ASU) allows the AFIS system to share an antenna with the VHF Comm or use its own antenna.

AFIS SYSTEM USES
SEPARATE ANTENNA:

1 NO
2 YES


Figure 4-122

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

21. Insert type designator as listed in [Table 4-1](#) and press ENTER. See Figure 4-123.

NOTE:

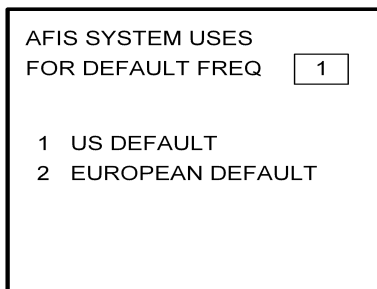
If the aircraft type is not listed in [Table 4-1](#), contact Global Data Center to obtain type designator.



A rectangular box containing the text "AIRCRAFT TYPE:" followed by a horizontal input field.

Figure 4-123

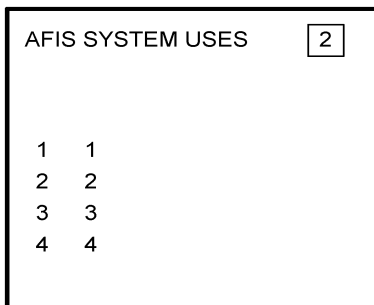
22. Select Option 1 for ARINC network or Option 2 for SITA or AVICOM network. Press ENTER to continue. See Figure 4-124.



A rectangular box containing the text "AFIS SYSTEM USES FOR DEFAULT FREQ" followed by a small box containing the number "1". Below this, there is a list of two options: "1 US DEFAULT" and "2 EUROPEAN DEFAULT".

Figure 4-124

23. Fuel Flow option is not available for GNS-1000, GNS-X, GNS-XES, GNS-XL or GNS-XLS. Insert 1 and press the ENTER Key. See Figure 4-125. If DMU P/N 400-045500-0004, 400-045500-0006 or other NAV system is used, select the appropriate fuel flow pages.



A rectangular box containing the text "AFIS SYSTEM USES" followed by a small box containing the number "2". Below this, there is a list of four options: "1 1", "2 2", "3 3", and "4 4".

Figure 4-125

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

24. Fuel Flow option is not available for GNS-1000, GNS-X, GNS-XES, GNS-XL or GNS-XLS. Select 1 and press the ENTER Key. See Figure 4-126.

FUEL FLOW INTERFACE

1 NO SENSORS
2 FREQUENCY
3 PULSE WIDTH
4 PULSE DIFF.

Figure 4-126

25. Select the applicable special feature option and press the ENTER Key to continue.

- (a) If Airline ID of GS has been entered the special selection features page will appear as in Figure 4-127.

NOTE:

OFF/ON REPORTS = logging takeoff and landing times. OPTION 1 = customer defined non-standard AFIS features. OFF REPORT = logging takeoff times. NO OFF/ON REPORTS = no logging of takeoff and landing times.

SPECIAL FEATURES
SELECTION:

1 OFF/ON REPORTS
2 OPTION 1
3 OFF REPORT
4 NO OFF/ON REPORTS

Figure 4-127

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

- (b) If Airline ID XJ or DH has been inserted the special feature option will be displayed as Figure 4-128.

NOTE:

OFF/ON REPORTS = logging takeoff and landing times. OPTION 1 = customer defined non-standard AFIS features. OFF REPORT = logging takeoff times. NO OFF/ON REPORTS = no logging of takeoff and landing times. ACARS REPORTS = Customer defined non-standard AFIS features.

| | |
|-----------------------------|--------------------------|
| SPECIAL FEATURES SELECTION: | |
| | <input type="checkbox"/> |
| 1 | OFF/ON REPORTS |
| 2 | OPTION 1 |
| 3 | OFF REPORT |
| 4 | NO OFF/ON REPORTS |
| 5 | ACARS REPORTS |

Figure 4-128

NOTE:

If Airline ID is GS, ACARS reports can be accessed by pressing *A or *M and then pressing ENTER key.

If ACARS REPORTS, 5, has been selected see Figure 4-129 otherwise proceed to step 27.

- (c) If Airline ID of DH or *A has been entered, the following page selections will be available.

| | |
|------------------|------------------------------|
| ARINC NETWORK | <input type="checkbox"/> YES |
| AIR CAN NETWORK | <input type="checkbox"/> NO |
| SITA NETWORK | <input type="checkbox"/> NO |
| USE GDC ACK | <input type="checkbox"/> NO |
| SAVE RPT 24 HRS | <input type="checkbox"/> NO |
| USE PRINTER 1 | <input type="checkbox"/> NO |
| USE PRINTER 2 | <input type="checkbox"/> NO |
| TITLE PAGE ACARS | <input type="checkbox"/> NO |

Figure 4-129

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

Use UP or DOWN arrow keys or right hand line select keys to position cursor over selections. Depress BACK key to cycle between YES and No selection. Press ENTER key to select. Cursor will move to next entry below selection. If cursor is on TITLE PAGE ACARS selection, then pressing ENTER key will activate the page shown in Figure 4-130.

BACK key - depressed with cursor off page causes SPECIAL FEATURES selection to appear. ENTER key - depressed with cursor off page causes screen shown in Figure 4-130 to appear.

| | |
|--------------------------------|-----|
| USE ACARS TIME | YES |
| USE DMU WT-ON- WHEELS INPUT | YES |

Figure 4-130

Use UP or Down arrow or right hand LINE SELECT keys to position cursor over option.

BACK key - depressed to cycle between YES and NO with cursor over desired selection. ENTER key - depress to select. Cursor will move to next entry below selection. If over USE DMU WT-ON-WHEELS INPUT selection, pressing ENTER key will proceed to step 27.

- (d) If Airline ID of XJ or *M has been entered, the following configuration selection will be available. See Figure 4-131.

| | |
|------------------|-----|
| ARINC NETWORK | YES |
| AIR CAN NETWORK | NO |
| SITA NETWORK | NO |
| USE PRINTER 1 | NO |
| USE PRINTER 2 | NO |
| TITLE PAGE ACARS | YES |

Figure 4-131

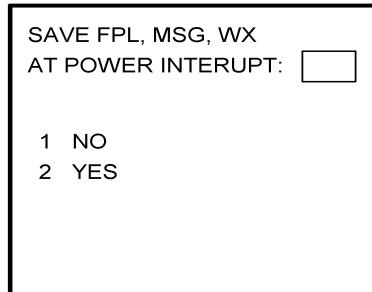
Use UP or Down arrow or right hand LINE SELECT keys to position cursor over selections.

BACK key - depressed to cycle between YES and NO with cursor over desired selection.

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

ENTER key - depress to select. Cursor will move to next entry below selection. If over TITLE PAGE ACARS selection, pressing ENTER key will display the page shown in Figure 4-130.

26. Select whether stored flight plans, messages and weather will be retained in memory when power is interrupted. Press the ENTER Key to continue. See Figure 4-132.

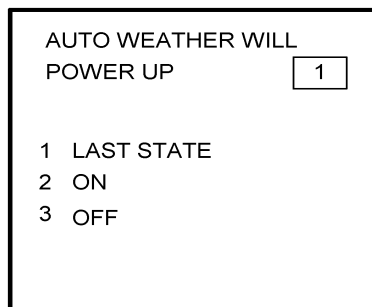


SAVE FPL, MSG, WX
AT POWER INTERUPT:

1 NO
2 YES

Figure 4-132

27. Select the desired option for Auto Weather update status at power up and press the ENTER Key. See Figure 4-133.



AUTO WEATHER WILL
POWER UP

1 LAST STATE
2 ON
3 OFF

Figure 4-133

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

28. This step is only applicable to GNS-1000, GNS-X, GNS-XES, GNS-XL or GNS-XLs with Satellite Data Communication System option DMU P/N 400-045500-0003, 400-045500-0004, 400-045500-0005, 400-045500-0006 or 400-045500-0130.

If other versions of the DMU are used, proceed to Step 30. If applicable, select Satcom Option 2 and press the ENTER Key. See Figure 4-134.

Select GWS option for AERO-C satellite system, ARINC 741 for Aeronautical Standard (ARINC 741) satellite system and SATFONE for SATFONE system. ARINC 741 and SATFONE can only be selected when using DMU P/N 400-045500-0005 or 400-045500-0006.

A rectangular menu box with a black border. At the top, it reads "SATELLITE COMM AVAILABLE" followed by an empty square box. Below this, there is a list of four options: "1 NO", "2 GWS", "3 ARINC 741", and "4 SATFONE".

Figure 4-134

29. Select the desired option and press the ENTER Key. See Figure 4-135.

A rectangular menu box with a black border. At the top, it reads "SATELLITE NETWORK WILL POWER UP:" followed by an empty square box. Below this, there is a list of three options: "1 LAST STATE", "2 ON", and "3 OFF".

Figure 4-135

30. Write configuration data to the Configuration Module by selecting 2 and press the ENTER Key. See Figure 4-136.

A rectangular menu box with a black border. At the top, it reads "WRITE CONFIG. DATA TO MODULE?" followed by a square box containing the number "2". Below this, there is a list of two options: "1 NO" and "2 YES".

Figure 4-136

31. Power Off DMU and restart.

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4.5 CONFIGURATION MODULE PROGRAMMING FOR GNS-1000, GNS-X, GNS-XES, GNS-XL OR GNS-XLS WITH DMU P/N 400-045500-0210 OR 400-045500-2010.

1. Install test connector P/N 12870-1 to the front of the DMU on J102.
2. Turn system on. Press the ENTER Key to accept DATE, GMT, and Position.

If DMU has been previously configured for ACARS proceed to step 4(a) otherwise step 3.

3. Press the PLAN Key or AFIS Key to display the AFIS MENU Page. See Figures 4-137 through 4-139.

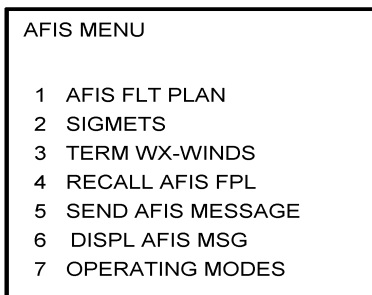


Figure 4-137

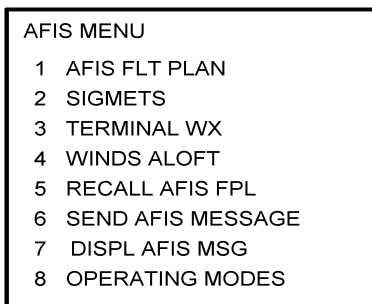


Figure 4-138

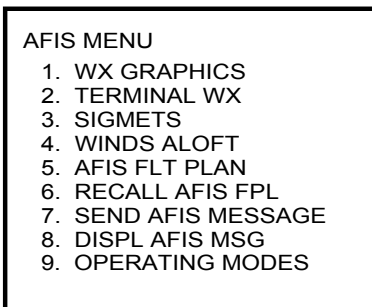


Figure 4-139

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

4. Use the UP or DOWN Arrow Key or Line >Select keys to position the cursor over the RECALL AFIS FPL option and press the ENTER Key. The RECALL AFIS FPL Page appears. Use the UP or DOWN Arrow Key or Line Select keys to position the cursor over the DATE field and enter 357777. Press the ENTER Key. See Figure 4-140.

| | |
|-----------------|-------------------------------------|
| RECALL AFIS FPL | |
| FPL # | |
| DATE | <input type="text" value="357777"/> |
| ETD | |
| FR | |
| TO | |

Figure 4-140

NOTE:

For non-ACARS programming, proceed to step 5.

- (a) Press the PLAN key or AFIS key to display the ACARS page. See Figure 4-141 or 4-142.

| | |
|-----------------------|--|
| ACARS MAIN MENU | |
| 1 - PREFLIGHT DATA | |
| 2 - LOAD DATA | |
| 3 - ARRIVAL DATA | |
| 4 - REQUEST MENU | |
| 5 - RECEIVED MESSAGES | |

Figure 4-141

| | |
|------------------|-------------------------|
| HH:MM INITIALIZE | |
| FLT# | <input type="text"/> CA |
| DEPT | FO |
| DEST | FA |
| ETD | ACM |
| ETE | |
| TRANSMIT | |

Figure 4-142

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

- (b) If ACARS page shown in [Figure 4-141](#) appears, press "1" key and the PREFLIGHT Data page, [Figure 4-143](#) will appear. Otherwise proceed to step 4(h).

| PREFLT DATA | |
|---------------|---|
| FLT NO: | <input style="width: 50px;" type="text"/> |
| FLT RLS DATE: | |
| DEPT STN: | |
| DEST STN: | |
| ETE: | |
| UTC: | |

Figure 4-143

- (c) Insert a one digit number (eg. 1) in FLT NO: field and press ENTER key. Cursor will move FLT RLS DATE: field.
- (d) Insert a one digit number (eg. 1) in FLT RLS DATE: field and press ENTER key. Cursor will move to DEPT STN: field.
- (e) Insert a three character departure station identifier (eg. MCI) in DEPT STN: field and press ENTER key. Cursor will move to DEPT STN: field.
- (f) Insert a three character destination station identifier (eg. MCI) in DEST STN: field and press ENTER key. Cursor will move to ETE field.
- (g) Enter 3577 in ETE field and press ENTER key. See [Figure 4-144](#). Proceed to step 5.

| PREFLT DATA | |
|---------------|--|
| FLT NO: | 0001 |
| FLT RLS DATE: | 01 |
| DEPT | MCI |
| DEST STN: | MCI |
| ETE: | <input style="width: 50px;" type="text" value="3577"/> |
| UTC: | |

Figure 4-144

- (h) Insert a three digit number (eg. 111) in FLT# field and press ENTER key. Cursor will move to DEPT field.
- (i) Insert a three character departure identifier (eg. MCI) in DEPT field and press ENTER key. Cursor will move to DEST field.
- (j) Insert a three character destination identifier (eg MCI) in DEST field and press ENTER key. Cursor will move to ETD field.

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AIRBORNE FLIGHT INFORMATION SYSTEM

- (k) Enter 3577 in ETD field and press ENTER key. See Figure 4-145 and proceed to step 5.

| | | |
|----------|-----------------------------------|-----|
| HH:MM | INITIALIZE | |
| FLT# | 111 | CA |
| DEPT | MCI | FO |
| DEST | MCI | FA |
| ETD | <input type="text" value="3577"/> | ACM |
| ETE | | |
| TRANSMIT | | |

Figure 4-145

5. Select the AFIS configuration to be read or modified from the AFIS Configuration Menu Page (Figure 4-146) and press the ENTER Key.

The dates of previously entered configurations are shown in Options 1 to 3. The newest configuration date appears first. Option 4 allows for the entry of a new configuration. Select Options 1 to 4 as desired and Figure 4-146 will be displayed.

| | |
|------------------------------------|--------------------------|
| READ / CHANGE CONFIGURATION OF: | <input type="checkbox"/> |
| 1 | 09APR95 |
| 2 | 06JAN92 |
| 3 | ----- |
| 4 | NEW VERSION |

Figure 4-146

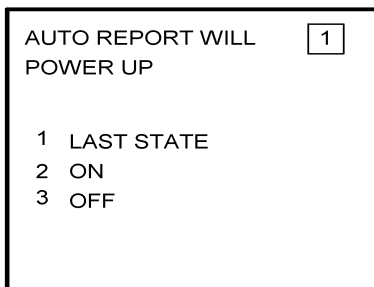
6. Insert the basic operating weight and press ENTER. See Figure 4-147.

| |
|----------------------|
| BASIC OPERATING WT |
| <input type="text"/> |

Figure 4-147

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

7. Insert the default for Auto Report and press ENTER. See Figure 4-148.

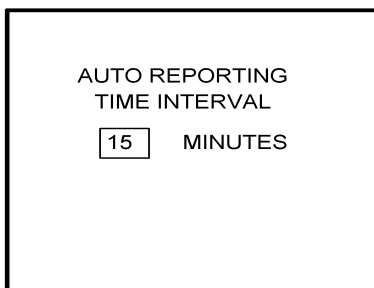


AUTO REPORT WILL POWER UP

1 LAST STATE
2 ON
3 OFF

Figure 4-148

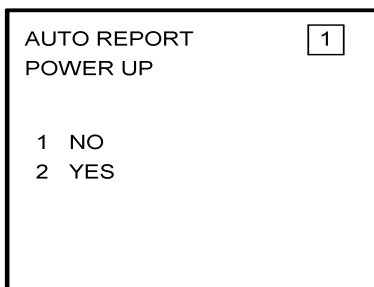
8. Insert 15 as the Auto Reporting time interval unless advised differently by the pilot/operator and press ENTER. See Figure 4-149.



AUTO REPORTING TIME INTERVAL
 MINUTES

Figure 4-149

9. Select Option 1 if reports are not wanted on the ground. Select Option 2 if reports on the ground are required. See Figure 4-150.



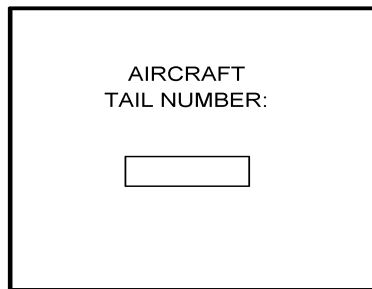
AUTO REPORT POWER UP

1 NO
2 YES

Figure 4-150

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

10. Insert complete aircraft registration number (tail number) in the cursor field and press ENTER. See Figure 4-151.



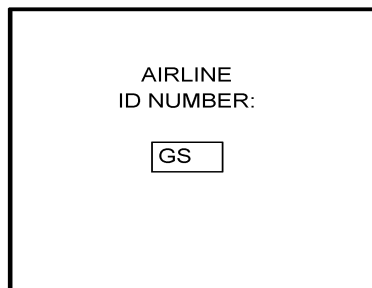
A rectangular window with a black border. Inside, the text "AIRCRAFT TAIL NUMBER:" is centered. Below the text is a small, empty rectangular input field.

Figure 4-151

11. Insert GS as the Airline ID number and press ENTER. See Figure 4-152.

NOTE:

Currently, GS is the only valid entry except for the following: XJ for MESABA Airlines, DH for Atlantic Coast Aviation.



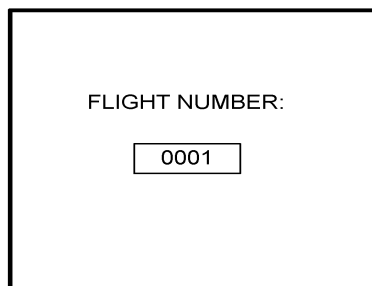
A rectangular window with a black border. Inside, the text "AIRLINE ID NUMBER:" is centered. Below the text is a small rectangular input field containing the text "GS".

Figure 4-152

12. In the Flight Number cursor field, insert the number 0001 as shown in Figure 4-153. Press ENTER.

NOTE:

Currently, 0001 is the only valid entry and may change at a future time.



A rectangular window with a black border. Inside, the text "FLIGHT NUMBER:" is centered. Below the text is a small rectangular input field containing the text "0001".

Figure 4-153

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

13. Insert 1 as shown in Figure 4-154 to indicate that Port 1 is connected to the GNS-1000, GNS-X, or other manufactures navigation system or insert 3 if a graphical GNS-XLS is attached to port 1. Press ENTER.

NOTE:

GNS-X applies also to GNS-XES, GNS-XL and GNS-XLS.

```
CONFIGURATION
422 PORT-1 CONNECTED
TO 
1 GNS-1000 / GNS-X
2 GNS-500
3 GRAPHICAL GNS-XLS
```

Figure 4-154

14. Insert 1 as shown in Figure 4-1555 to designate that Port 2 is connected to the GNS-1000, GNS-X or other manufacturers navigation system or insert 3 if a Graphical GNS-XLS is attached to Port 2. Press ENTER. If no Global systems are connected, select option 4.

NOTE:

GNS-X applies also to GNS-XES, GNS-XL and GNS-XLS.

```
CONFIGURATION
422 PORT-2 CONNECTED
TO 
1 GNS-1000 / GNS-X
2 GNS-500
3 GRAPHICAL GNS-XLS
4 NONE
```

Figure 4-155

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

15. If applicable, insert 1 to designate that Port 3 is connected to the GNS-1000 or GNS-X system or insert 3 if Port 3 is connected to a Graphical GNS-XLS. Press ENTER. If no Global systems are connected, select Option 4. See Figure 4-156.

NOTE:

GNS-X applies also to GNS-XES, GNS-XL and GNS-XLS.

| | |
|---|---|
| CONFIGURATION 422 PORT-3 CONNECTED TO | 1 |
| 1 GNS-1000 / GNS-X | |
| 2 GNS-500 | |
| 3 GRAPHICAL GNS-XLS | |
| 4 NONE | |

Figure 4-156

16. To designate Port 1 as the Master 422 port, insert 1 and press ENTER. See Figure 4-157.

NOTE:

The master port refers to the use of one port by the software to have priority over the data from other ports (i.e. CDU2). Global recommends use of Port 1.

| | |
|---|---|
| AFIS SYSTEM USES AS MASTER 422 PORT: | 1 |
| 1 PORT 1 | |
| 2 PORT 2 | |
| 3 PORT 3 | |

Figure 4-157

17. The 429 port option is only applicable when other manufacturers navigation systems are installed. If only Global systems are used, insert 3 and press ENTER. See Figure 4-158.

| | |
|---------------------------------------|---|
| PRIMARY 429 NAV PORT CONNECTED TO: | 3 |
| 1 429 | |
| 2 571 | |
| 3 NONE | |

Figure 4-158

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

18. Insert a 2 if a weather graphics RPU is connected to Cabin Terminal Port 1. Otherwise, insert a 1. See Figure 4-159.

```
CONFIGURATION
CABIN TERMINAL PORT1 
CONNECTED TO:

1 CABIN TERMINAL
2 WX GRAPHICS
```

Figure 4-159

19. Insert a 2 if a weather graphics RPU is connected to Cabin Terminal Port 2. Otherwise, insert a 1. See Figure 4-160

```
CONFIGURATION
CABIN TERMINAL PORT2 
CONNECTED TO:

1 CABIN TERMINAL
2 WX GRAPHICS
```

Figure 4-160

20. The 429 port option is only applicable when other manufacturer's navigation systems are installed. If only Global systems are used, insert 3 and press ENTER. See Figure 4-161.

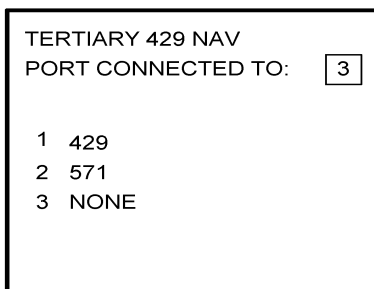
```
SECONDARY 429 NAV
PORT CONNECTED TO: 

1 429
2 571
3 NONE
```

Figure 4-161

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

21. The 429 port option is only applicable when other manufacturer's navigation systems are installed. If only Global systems are used, insert 3 and press ENTER. See Figure 4-162.



TERTIARY 429 NAV
PORT CONNECTED TO:

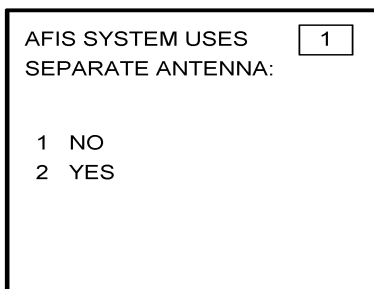
1 429
2 571
3 NONE

Figure 4-162

22. Select whether the AFIS system is using a separate antenna and press ENTER. See Figure 4-163.

NOTE:

The Antenna Switching Unit (ASU) allows the AFIS system to share an antenna with the VHF Comm or use its own antenna.



AFIS SYSTEM USES
SEPARATE ANTENNA:

1 NO
2 YES

Figure 4-163

23. Insert type designator as listed in [Table 4-1](#) and press ENTER. See Figure 4-164.

NOTE:

If the aircraft type is not listed in [Table 4-1](#), contact Global Data Center to obtain type designator.



AIRCRAFT
TYPE :

Figure 4-164

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

24. Select Option 1 for ARINC network or Option 2 for SITA or AVICOM network. Press ENTER to continue. See Figure 4-165.

| | |
|--------------------------------------|--------------------------------|
| AFIS SYSTEM USES FOR DEFAULT FREQ | <input type="text" value="1"/> |
| 1 US DEFAULT | |
| 2 EUROPEAN DEFAULT | |

Figure 4-165

25. Fuel Flow option is not available for GNS-1000, GNS-X, GNS-XES, GNS-XL or GNS-XLS. Insert 1 and press the ENTER Key. See Figure 4-166. If DMU P/N 400-045500-0004, 400-045500-0006 or other NAV system is used, select the appropriate fuel flow pages.

| | |
|------------------|--------------------------------|
| AFIS SYSTEM USES | <input type="text" value="2"/> |
| 1 1 | |
| 2 2 | |
| 3 3 | |
| 4 4 | |

Figure 4-166

26. Fuel Flow option is not available for GNS-1000, GNS-X, GNS-XES, GNS-XL or GNS-XLS. Select 1 and press the ENTER Key. See Figure 4-167.

| | |
|--------------------------------|-------------|
| FUEL FLOW INTERFACE | |
| <input type="text" value="1"/> | NO SENSORS |
| 2 | FREQUENCY |
| 3 | PULSE WIDTH |
| 4 | PULSE DIFF. |

Figure 4-167

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

27. Select the applicable special feature option and press the ENTER Key to continue.

- (a) If Airline ID of GS has been entered the special selection features page will appear as in Figure 4-168.

NOTE:

OFF/ON REPORTS = logging takeoff and landing times. OPTION 1 = customer defined non-standard AFIS features. OFF REPORT = logging takeoff times. NO OFF/ON REPORTS = no logging of takeoff and landing times.

```
SPECIAL FEATURES  
SELECTION:   
  
1 OFF/ON REPORTS  
2 OPTION 1  
3 OFF REPORT  
4 NO OFF/ON REPORTS
```

Figure 4-168

- (b) If Airline ID XJ or DH has been inserted the special feature option will be displayed as Figure 4-169.

NOTE:

OFF/ON REPORTS = logging takeoff and landing times. OPTION 1 = customer defined non-standard AFIS features. OFF REPORT = logging takeoff times. NO OFF/ON REPORTS = no logging of takeoff and landing times. ACARS REPORTS = Customer defined non-standard AFIS features.

```
SPECIAL FEATURES  
SELECTION:   
  
1 OFF/ON REPORTS  
2 OPTION 1  
3 OFF REPORT  
4 NO OFF/ON REPORTS  
5 ACARS REPORTS
```

Figure 4-169

NOTE:

If Airline ID is GS, ACARS reports can be accessed by pressing *A or *M and then pressing ENTER key.

If ACARS REPORTS, 5, has been selected see [Figure 4-170](#) otherwise proceed to step 28.

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

(c) If Airline ID of DH or *A has been entered, the following page selections will be available.

| | |
|------------------|-----|
| ARINC NETWORK | YES |
| AIR CAN NETWORK | NO |
| SITA NETWORK | NO |
| USE GDC ACK | NO |
| SAVE RPT 24 HRS | NO |
| USE PRINTER 1 | NO |
| USE PRINTER 2 | NO |
| TITLE PAGE ACARS | NO |

Figure 4-170

Use UP or DOWN arrow keys or right hand line select keys to position cursor over selections. Depress BACK key to cycle between YES and No selection. Press ENTER key to select. Cursor will move to next entry below selection. If cursor is on TITLE PAGE ACARS selection, then pressing ENTER key will activate the page shown in Figure 4-171.

BACK key - depressed with cursor off page causes SPECIAL FEATURES selection to appear.

ENTER key -depressed with cursor off page causes screen shown in Figure 4-171 to appear.

| | |
|--------------------------------|-----|
| USE ACARS TIME | YES |
| USE DMU WT-ON- WHEELS INPUT | YES |

Figure 4-171

Use UP or Down arrow or right hand LINE SELECT keys to position cursor over option.

BACK key - depressed to cycle between YES and NO with cursor over desired selection.

ENTER key - depress to select. Cursor will move to next entry below selection. If over USE DMU WT-ON-WHEELS INPUT selection, pressing ENTER key will proceed to step 27.

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AIRBORNE FLIGHT INFORMATION SYSTEM

- (d) If Airline ID of XJ or *M has been entered, the following configuration selection will be available. See Figure 4-172.

| | |
|------------------|-----|
| ARINC NETWORK | YES |
| AIR CAN NETWORK | NO |
| SITA NETWORK | NO |
| USE PRINTER 1 | NO |
| USE PRINTER 2 | NO |
| TITLE PAGE ACARS | YES |

Figure 4-172

Use UP or Down arrow or right hand LINE SELECT keys to position cursor over selections.

BACK key - depressed to cycle between YES and NO with cursor over desired selection.

ENTER key - depress to select. Cursor will move to next entry below selection. If over TITLE PAGE ACARS selection, pressing ENTER key will display the page shown in [Figure 4-171](#).

28. Select whether stored flight plans, messages and weather will be retained in memory when power is interrupted. Press the ENTER Key to continue. See Figure 4-173.

| | |
|---|--------------------------|
| SAVE FPL, MSG, WX AT POWER INTERUPT: | <input type="checkbox"/> |
| 1 NO | |
| 2 YES | |

Figure 4-173

29. Insert 2 if the DMU is to use the weight on wheels input. See Figure 4-174.

| | |
|---|--------------------------|
| CONFIGURATION USE DMU WEIGHT ON WHEELS INPUT: | <input type="checkbox"/> |
| 1 NO | |
| 2 YES | |

Figure 4-174

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

30. Select the desired option for Auto Weather update status at power up and press the ENTER Key. See Figure 4-175.

AUTO WEATHER WILL
POWER UP

1 LAST STATE
2 ON
3 OFF

Figure 4-175

31. This step is only applicable to GNS-1000, GNS-X, GNS-XES, GNS-XL or GNS-XLS with Satellite Data Communication System option DMU P/N 400-045500-0210 or 400-045500-2010.

If other versions of the DMU are used, proceed to Step 33. If applicable, select Satcom Option 2 and press the ENTER Key. See Figure 4-176.

Select GWS option for AERO-C satellite system, ARINC 741 for Aeronautical Standard (ARINC 741) satellite system and SATFONE for SATFONE system. ARINC 741 and SATFONE can only be selected when using DMU P/N 400-045500-2010.

SATELLITE COMM

AVAILABLE

1 NO
2 GWS
3 ARINC 741
4 SATFONE

Figure 4-176

32. Select the desired option and press the ENTER Key. See Figure 4-177.

SATELLITE NETWORK
WILL POWER UP:

1 LAST STATE
2 ON
3 OFF

Figure 4-177

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

33. Write configuration data to the Configuration Module by selecting 2 and press the ENTER Key. See Figure 4-178.

WRITE CONFIG. 2
DATA TO MODULE?

1 NO
2 YES

Figure 4-178

34. Power Off DMU and restart.

NOTE:

This completes AFIS configuration. For ACARS configuration, proceed to step 4(a).

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

4.6 CONFIGURATION MODULE PROGRAMMING FOR GNS-1000, GNS-X, GNS-XES, GNS-XL OR GNS-XLS WITH DMU P/N 400-045500-0211 OR 400-045500-2011.

1. Install test connector P/N 12870-1 to the front of the DMU on J102.
2. Turn system on. Press the ENTER Key to accept DATE, GMT, and Position.

If DMU has been previously configured for ACARS proceed to step 4(a) otherwise step 3.

3. Press the PLAN Key or AFIS Key to display the AFIS MENU Page. See Figures 4-179 through 4-181.

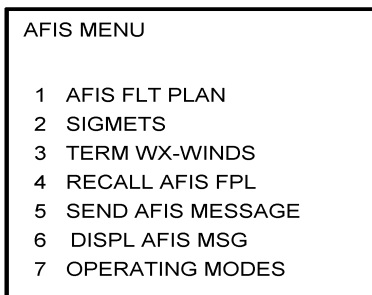


Figure 4-179

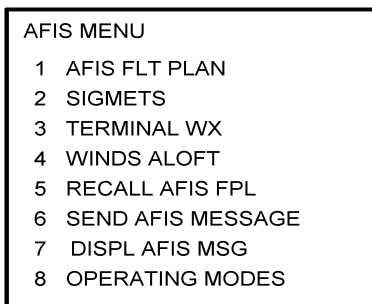


Figure 4-180

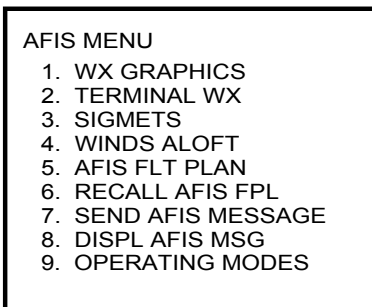


Figure 4-181

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

4. Use the UP or DOWN Arrow Key or Line >Select keys to position the cursor over the RECALL AFIS FPL option and press the ENTER Key. The RECALL AFIS FPL Page appears. Use the UP or DOWN Arrow Key or Line Select keys to position the cursor over the DATE field and enter 357777. Press the ENTER Key. See Figure 4-182.

| | |
|-----------------|-------------------------------------|
| RECALL AFIS FPL | |
| FPL # | |
| DATE | <input type="text" value="357777"/> |
| ETD | |
| FR | |
| TO | |

Figure 4-182

NOTE:

For non-ACARS programming, proceed to step 5.

- (a) Press the PLAN key or AFIS key to display the ACARS page. See Figure 4-183 or 4-184.

| | |
|-----------------------|--|
| ACARS MAIN MENU | |
| 1 - PREFLIGHT DATA | |
| 2 - LOAD DATA | |
| 3 - ARRIVAL DATA | |
| 4 - REQUEST MENU | |
| 5 - RECEIVED MESSAGES | |

Figure 4-183

| | |
|------------------|-------------------------|
| HH:MM INITIALIZE | |
| FLT# | <input type="text"/> CA |
| DEPT | FO |
| DEST | FA |
| ETD | ACM |
| ETE | |
| TRANSMIT | |

Figure 4-184

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

- (b) If ACARS page shown in [Figure 4-183](#) appears, press "1" key and the PREFLIGHT Data page, Figure 4-185 will appear. Otherwise proceed to step 4(h).

| PREFLT DATA | |
|---------------|---|
| FLT NO: | <input style="width: 50px;" type="text"/> |
| FLT RLS DATE: | |
| DEPT STN: | |
| DEST STN: | |
| ETE: | |
| UTC: | |

Figure 4-185

- (c) Insert a one digit number (eg. 1) in FLT NO: field and press ENTER key. Cursor will move FLT RLS DATE: field.
- (d) Insert a one digit number (eg. 1) in FLT RLS DATE: field and press ENTER key. Cursor will move to DEPT STN: field.
- (e) Insert a three character departure station identifier (eg. MCI) in DEPT STN: field and press ENTER key. Cursor will move to DEPT STN: field.
- (f) Insert a three character destination station identifier (eg. MCI) in DEST STN: field and press ENTER key. Cursor will move to ETE field.
- (g) Enter 3577 in ETE field and press ENTER key. See Figure 4-186. Proceed to step 5.

| PREFLT DATA | |
|---------------|--|
| FLT NO: | 0001 |
| FLT RLS DATE: | 01 |
| DEPT | MCI |
| DEST STN: | MCI |
| ETE: | <input style="width: 50px;" type="text" value="3577"/> |
| UTC: | |

Figure 4-186

- (h) Insert a four digit number (eg. 1111) in FLT# field and press ENTER key. Cursor will move to DEPT field.
- (i) Insert a three character departure identifier (eg. MCI) in DEPT field and press ENTER key. Cursor will move to DEST field.
- (j) Insert a three character destination identifier (eg MCI) in DEST field and press ENTER key. Cursor will move to ETD field.

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

- (k) Enter 3577 in ETD field and press ENTER key. See [Figure 4-145](#) and proceed to step 5.

| | | |
|------------------|-----------------------------------|-----|
| HH:MM INITIALIZE | | |
| FLT# | 1111 | CA |
| DEPT | MCI | FO |
| DEST | MCI | FA |
| ETD | <input type="text" value="3577"/> | ACM |
| ETE | | |
| TRANSMIT | | |

Figure 4-187

5. Select the AFIS configuration to be read or modified from the AFIS Configuration Menu Page (Figure 4-188) and press the ENTER Key.

The dates of previously entered configurations are shown in Options 1 to 3. The newest configuration date appears first. Option 4 allows for the entry of a new configuration. Select Options 1 to 4 as desired and Figure 4-188 will be displayed.

| | | |
|---------------------------------|-------------|--------------------------|
| READ / CHANGE CONFIGURATION OF: | | <input type="checkbox"/> |
| 1 | 09APR95 | |
| 2 | 06JAN92 | |
| 3 | ----- | |
| 4 | NEW VERSION | |

Figure 4-188

6. Insert the basic operating weight and press ENTER. See Figure 4-189.

| |
|----------------------|
| BASIC OPERATING WT |
| <input type="text"/> |

Figure 4-189

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

7. Insert the default for Auto Report and press ENTER. See Figure 4-190.

AUTO REPORT WILL 1
POWER UP

1 LAST STATE
2 ON
3 OFF

Figure 4-190

8. Insert 15 as the Auto Reporting time interval unless advised differently by the pilot/operator and press ENTER. See Figure 4-191.

AUTO REPORTING
TIME INTERVAL

15 MINUTES

Figure 4-191

9. Select Option 1 if reports are not wanted on the ground. Select Option 2 if reports on the ground are required. See Figure 4-192.

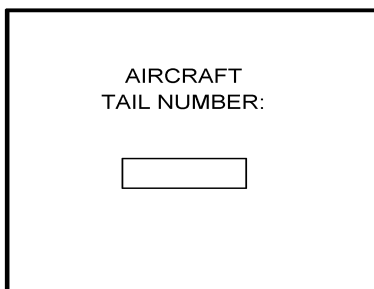
AUTO REPORT 1
POWER UP

1 NO
2 YES

Figure 4-192

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

10. Insert complete aircraft registration number (tail number) in the cursor field and press ENTER. See Figure 4-193.



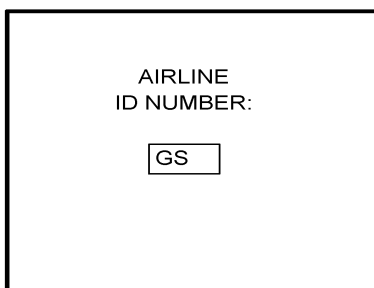
A rectangular box containing the text "AIRCRAFT TAIL NUMBER:" followed by a smaller, empty rectangular input field.

Figure 4-193

11. Insert GS as the Airline ID number and press ENTER. See Figure 4-194.

NOTE:

Currently, GS is the only valid entry except for the following: XJ for MESABA Airlines, DH for Atlantic Coast Aviation.



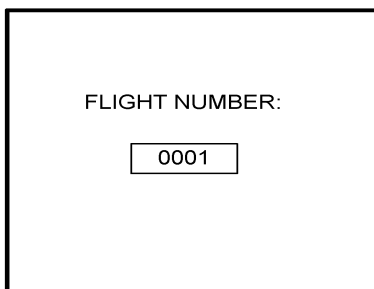
A rectangular box containing the text "AIRLINE ID NUMBER:" followed by a smaller rectangular input field containing the text "GS".

Figure 4-194

12. In the Flight Number cursor field, insert the number 0001 as shown in Figure 4-195. Press ENTER.

NOTE:

Currently, 0001 is the only valid entry and may change at a future time.



A rectangular box containing the text "FLIGHT NUMBER:" followed by a smaller rectangular input field containing the text "0001".

Figure 4-195

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

13. Insert 1 as shown in Figure 4-196 to indicate that Port 1 is connected to the GNS-1000, GNS-X, or other manufactures navigation system or insert 3 if a graphical GNS-XLS is attached to port 1. Press ENTER.

NOTE:

GNS-X applies also to GNS-XES, GNS-XL and GNS-XLS.

| | |
|---|---|
| CONFIGURATION 422 PORT-1 CONNECTED TO | 1 |
| 1 GNS-1000 / GNS-X | |
| 2 GNS-500 | |
| 3 GRAPHICAL GNS-XLS | |

Figure 4-196

14. Insert 1 as shown in Figure 4-197 to designate that Port 2 is connected to the GNS-1000, GNS-X or other manufacturers navigation system or insert 3 if a Graphical GNS-XLS is attached to Port 2. Press ENTER. If no Global systems are connected, select option 4.

NOTE:

GNS-X applies also to GNS-XES, GNS-XL and GNS-XLS.

| | |
|---|---|
| CONFIGURATION 422 PORT-2 CONNECTED TO | 1 |
| 1 GNS-1000 / GNS-X | |
| 2 GNS-500 | |
| 3 GRAPHICAL GNS-XLS | |
| 4 NONE | |

Figure 4-197

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

15. If applicable, insert 1 to designate that Port 3 is connected to the GNS-1000 or GNS-X system or insert 3 if Port 3 is connected to a Graphical GNS-XLS. Press ENTER. If no Global systems are connected, select Option 4. See Figure 4-198.

NOTE:

GNS-X applies also to GNS-XES, GNS-XL and GNS-XLS.

| | |
|---|---|
| CONFIGURATION 422 PORT-3 CONNECTED TO | 1 |
| 1 GNS-1000 / GNS-X | |
| 2 GNS-500 | |
| 3 GRAPHICAL GNS-XLS | |
| 4 NONE | |

Figure 4-198

16. To designate Port 1 as the Master 422 port, insert 1 and press ENTER. See Figure 4-199.

NOTE:

The master port refers to the use of one port by the software to have priority over the data from other ports (i.e. CDU2). Global recommends use of Port 1.

| | |
|---|---|
| AFIS SYSTEM USES AS MASTER 422 PORT: | 1 |
| 1 PORT 1 | |
| 2 PORT 2 | |
| 3 PORT 3 | |

Figure 4-199

17. Insert a 2 if a weather graphics RPU is connected to Cabin Terminal Port 1. Otherwise, insert a 1. See Figure 4-200.

| | |
|--|---|
| CONFIGURATION CABIN TERMINAL PORT1 CONNECTED TO: | 1 |
| 1 CABIN TERMINAL | |
| 2 WX GRAPHICS | |

Figure 4-200

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

18. Insert a 2 if a weather graphics RPU is connected to Cabin Terminal Port 2. Otherwise, insert a 1. See Figure 4-201

```
CONFIGURATION
CABIN TERMINAL PORT2 
CONNECTED TO:

1 CABIN TERMINAL
2 WX GRAPHICS
```

Figure 4-201

19. The 429 port option is only applicable when other manufacturers navigation systems are installed. If only Global systems are used, insert 3 and press ENTER. See Figure 4-202.

```
PRIMARY 429 NAV
PORT CONNECTED TO: 

1 429
2 571
3 NONE
```

Figure 4-202

20. The 429 port option is only applicable when other manufacturer's navigation systems are installed. If only Global systems are used, insert 3 and press ENTER. See Figure 4-203.

```
SECONDARY 429 NAV
PORT CONNECTED TO: 

1 429
2 571
3 NONE
```

Figure 4-203

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

21. The 429 port option is only applicable when other manufacturer's navigation systems are installed. If only Global systems are used, insert 3 and press ENTER. See Figure 4-204.

```
TERTIARY 429 NAV
PORT CONNECTED TO: 

1 429
2 571
3 NONE
```

Figure 4-204

22. Select whether the AFIS system is using a separate antenna and press ENTER. See Figure 4-205.

NOTE:

The Antenna Switching Unit (ASU) allows the AFIS system to share an antenna with the VHF Comm or use its own antenna.

```
AFIS SYSTEM USES
SEPARATE ANTENNA: 

1 NO
2 YES
```

Figure 4-205

23. Insert type designator as listed in [Table 4-1](#) and press ENTER. See Figure 4-206.

NOTE:

If the aircraft type is not listed in [Table 4-1](#), contact Global Data Center to obtain type designator.

```
AIRCRAFT
TYPE :

```

Figure 4-206

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

24. Select Option 1 for ARINC network or Option 2 for SITA or AVICOM network. Press ENTER to continue. See Figure 4-207.

| | | |
|--------------------------------------|------------------|--------------------------------|
| AFIS SYSTEM USES FOR DEFAULT FREQ | | <input type="text" value="1"/> |
| 1 | US DEFAULT | |
| 2 | EUROPEAN DEFAULT | |

Figure 4-207

25. Select Option 2 if ACMS (FDAMS) hardware will be installed. Press ENTER key to continue. See Figure 4-208.

NOTE:

If option 1 is selected, skip to step 28.

| | |
|---------------|--------------------------------|
| CONFIGURATION | |
| USE ACMS: | <input type="text" value="2"/> |
| 1 | NO |
| 2 | YES |

Figure 4-208

26. Select number of engines applicable. Press ENTER key to continue. See Figure 4-209.

NOTE:

This menu operation has been modified from its prior use in the Fuel Flow Menus.

| | |
|----------------|--------------------------------|
| CONFIGURATION | |
| NO. OF ENGINES | <input type="text" value="4"/> |
| 1 | 1 |
| 2 | 2 |
| 3 | 3 |
| 4 | 4 |

Figure 4-209

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

27. Insert 1-4 Engine Serial Numbers based on number entered in Step 26. Press ENTER key to continue. See Figure 4-210.

CONFIGURATION

ENGINE SER#1

ENGINE SER#2

ENGINE SER#3

ENGINE SER#4

Figure 4-210

28. Select the applicable special feature option and press the ENTER Key to continue.

- (a) If Airline ID of GS has been entered the special selection features page will appear as in Figure 4-211.

NOTE:

OFF/ON REPORTS = logging takeoff and landing times. OPTION 1 = customer defined non-standard AFIS features. OFF REPORT = logging takeoff times. NO OFF/ON REPORTS = no logging of takeoff and landing times.

SPECIAL FEATURES
SELECTION:

1 OFF/ON REPORTS
2 OPTION 1
3 OFF REPORT
4 NO OFF/ON REPORTS

Figure 4-211

Pressing the ENTER key will proceed to step 31.

- (b) If Airline ID XJ or DH has been inserted the special feature option will be displayed as [Figure 4-212](#).

NOTE:

OFF/ON REPORTS = logging takeoff and landing times. OPTION 1 = customer defined non-standard AFIS features. OFF REPORT = logging takeoff times. NO OFF/ON REPORTS = no logging of takeoff and landing times. ACARS REPORTS = Customer defined non-standard AFIS features.

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

| | |
|--------------------------------|--------------------------|
| SPECIAL FEATURES SELECTION: | |
| | <input type="checkbox"/> |
| 1 | OFF/ON REPORTS |
| 2 | OPTION 1 |
| 3 | OFF REPORT |
| 4 | NO OFF/ON REPORTS |
| 5 | ACARS REPORTS |

Figure 4-212

NOTE:

If Airline ID is GS, ACARS reports can be accessed by pressing *A or *M and then pressing ENTER key.

If ACARS REPORTS, 5, has been selected, see Figure 4-213 for Airline ID DH or see [Figure 4-215](#) for Airline ID XJ; otherwise, proceed to step 31.

- (c) If Airline ID of DH or *A has been entered, the following page selections will be available.

| | |
|------------------|------------------------------|
| ARINC NETWORK | <input type="checkbox"/> YES |
| AIR CAN NETWORK | NO |
| SITA NETWORK | NO |
| AUTO FORMFEED | NO |
| USE GDC ACK | NO |
| SAVE RPT 24 HRS | NO |
| USE SATELLITE | NO |
| USE PRINTER 1 | NO |
| USE PRINTER 2 | NO |
| TITLE PAGE ACARS | NO |

Figure 4-213

Use UP or DOWN arrow keys or right hand line select keys to position cursor over selections. Depress BACK key to cycle between YES and No selection. Press ENTER key to select. Cursor will move to next entry below selection. If cursor is on TITLE PAGE ACARS selection, then pressing ENTER key will activate the page shown in [Figure 4-214](#).

BACK key - depressed with cursor off page causes SPECIAL FEATURES selection to appear.

ENTER key -depressed with cursor off page causes screen shown in [Figure 4-214](#) to appear.

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

| | |
|----------------------------------|----|
| CONFIGURATION | |
| USE ACARS TIME | NO |
| OFF OR ON INPUT TRIGGERED BY: | 2 |
| 1 STD DEFAULT | |
| 2 WEIGHT ON WHEELS | |
| 3 WOW & GND SPEED | |

Figure 4-214

Use UP or Down arrow or right hand LINE SELECT keys to position cursor over option.

NOTE:

For airline ID of DH or *A, set OFF OR ON TRIGGERED BY: to 2.

BACK key - depressed to cycle between YES and NO with cursor over USE ACARS TIME.

ENTER key - depress to select. Cursor will move to next entry below selection. If over OFF OR ON TRIGGERED BY: selection, pressing ENTER key will proceed to step 32.

- (d) If Airline ID of XJ or *M has been entered, the following configuration selection will be available. See Figure 4-215.

| | |
|------------------|-----|
| ARINC NETWORK | YES |
| AIR CAN NETWORK | NO |
| SITA NETWORK | NO |
| AUTO FORMFEED | NO |
| USE PRINTER 1 | NO |
| USE PRINTER 2 | NO |
| TITLE PAGE ACARS | YES |

Figure 4-215

Use UP or Down arrow or right hand LINE SELECT keys to position cursor over selections.

BACK key - depressed to cycle between YES and NO with cursor over desired selection. depressed with cursor off page causes SPECIAL FEATURES selection to appear.

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

ENTER key - depress to select. Cursor will move to next entry below selection. If over TITLE PAGE ACARS selection, pressing ENTER key will display the page shown in Figure 4-216

29. Select applicable inputs for use ACARS TIME and OFF OR ON TRIGGERED BY.

NOTE:

If Airline ID of XJ or *M has been entered, set use ACARS TIME to NO using BACK key and insert 2 for OFF OR ON TRIGGERED BY. See Figure 4-216.

| | |
|----------------------------------|---------------------------------|
| CONFIGURATION | |
| USE ACARS TIME | <input type="text" value="NO"/> |
| OFF OR ON INPUT TRIGGERED BY: | <input type="text" value="2"/> |
| 1 STD DEFAULT | |
| 2 WEIGHT ON WHEELS | |
| 3 WOW & GND SPEED | |

Figure 4-216

Press ENTER key from OFF OR ON TRIGGERED BY to continue to next page

30. Select 1 to disable DDTC (taxi clearance) and Pushback Request options; otherwise, select option 2. Press ENTER. See Figure 4-217.

| | |
|---------------|--------------------------------|
| CONFIGURATION | |
| USE DDTC: | <input type="text" value="1"/> |
| 1 NO | |
| 2 YES | |

Figure 4-217

Pressing the ENTER key will proceed to step 32.

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

31. Select whether the AFIS system is using standard default (ground speed) or weight on wheels to trigger in-air detection. Enter selection and press ENTER (see Figure 4-218)

CONFIGURATION

OFF OR ON EVENT
TRIGGERED BY:

1 STD DEFAULT
2 WEIGHT ON WHEELS
3 WOW & GND SPEED

Figure 4-218

NOTE:

After making a selection, go to step 32.

32. Select whether stored flight plans, messages and weather will be retained in memory when power is interrupted. Press the ENTER Key to continue. See Figure 4-218.

SAVE FPL, MSG, WX
AT POWER INTERUPT:

1 NO
2 YES

Figure 4-219

33. Select the desired option for Auto Weather update status at power up and press the ENTER Key. See Figure 4-220.

AUTO WEATHER WILL
POWER UP

1 LAST STATE
2 ON
3 OFF

Figure 4-220

34. This step is only applicable to GNS-1000, GNS-X, GNS-XES, GNS-XL or GNS-XLs with Satellite Data Communication System option DMU P/N 400-045500-0211 or 400-045500-2011.

If other versions of the DMU are used, proceed to Step 36. If applicable, select Satcom Option 2 and press the ENTER Key. See [Figure 4-221](#).

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Select AERO-C option for AERO-C satellite system, ARINC 741 for Aeronautical Standard (ARINC 741) satellite system and SATFONE for SATFONE system. ARINC 741 and SATFONE can only be selected when using DMU P/N 400-045500-2011.

SATELLITE COMM AVAILABLE

1 NONE
2 AERO-C
3 ARINC 741
4 SATFONE

Figure 4-221

35. Select the desired option and press the ENTER Key. See Figure 4-222.

SATELLITE NETWORK WILL POWER UP:

1 LAST STATE
2 ON
3 OFF

Figure 4-222

36. Write configuration data to the Configuration Module by selecting 2 and press the ENTER Key. See Figure 4-223.

WRITE CONFIG. DATA TO MODULE?

1 NO
2 YES

Figure 4-223

37. Power Off DMU and restart.

NOTE:

This completes AFIS configuration. For ACARS configuration, proceed to step 4(a).

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AIRBORNE FLIGHT INFORMATION SYSTEM

4.7 CONFIGURATION MODULE PROGRAMMING FOR 739 MCDU AND OTHER FMS MANUFACTURERS WITH DMU P/N 400-45000-2011 OR 400-45000-0211

1. Install test connector P/N 12870-1 to the front of the DMU on J102.
2. Turn system on.

If DMU has been configured for ACARS proceed to step 5 otherwise go to step 3.

3. Press line-select-key L4 to access Recall FPL Page. See Figure 4-224.

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | A | F | I | S | | M | E | N | U | | | | | | | | | |
| L1 | < | F | L | T | | P | L | A | N | | | | | | | F | P | L | | | L | I | S | T | > |
| L2 | < | T | E | R | M | I | N | A | L | | W | X | | | | F | L | T | | | P | R | G | > | |
| L3 | < | W | I | N | D | S | | A | L | O | F | T | | | | S | I | G | M | E | N | T | S | > | |
| L4 | < | R | E | C | A | L | L | | F | P | L | | | | U | P | D | T | | | F | P | L | > | |
| L5 | < | S | E | N | D | | M | S | G | | | | D | I | S | P | L | A | Y | | M | S | G | > | |
| L6 | < | O | P | E | R | A | T | I | N | G | | M | O | D | E | S | | | | | | | | | |

Figure 4-224

4. Enter 35777 on scratch pad, line 13, and press L3. See figure 4-225. Go to step 5.

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | R | E | C | A | L | L | | A | F | I | S | | F | P | L | | | I | / | I | |
| L1 | F | P | L | | N | U | M | B | E | R | | | | | | | | | | | | | | | |
| L2 | X | X | X | X | X | | | | | | | | | | | | | | | | | | | | |
| L3 | | | | | | | | | | | | | | | | | | | | | F | R | O | M | |
| L4 | 1 | 1 | N | O | V | 9 | 8 | | | | | | | | | | | | | | K | D | E | N | |
| L5 | E | T | D | | | | | | | | | | | | | | | | | | | T | O | | |
| L6 | 0 | 1 | : | 1 | 1 | | | | | | | | | | | | | | | | | K | L | A | X |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| | < | M | E | N | U | | | | | | | | | | | T | R | A | N | S | M | I | T | > | |
| | 3 | 5 | 7 | 7 | 7 | 7 | | | | | | | | | | | | | | | | | | | |

Figure 4-225

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

5. Enter 3577 in line 13 and press L4. See figure 4-226.

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | | | | | | |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | H | H | : | M | M | | | | I | N | I | T | I | A | L | I | Z | E | | | | I | / | I | | | | | |
| L1 | 1 | F | L | T | # | | | | | | | | | | | | | | | | | C | A | | | | | | | |
| | 2 | A | A | A | A | | | | | | | | | | | | | | | | | X | X | X | X | | | | | |
| | 3 | D | E | P | T | | | | | | | | | | | | | | | | | | F | O | | | | | | |
| L2 | 4 | K | K | K | | | | | | | | | | | | | | | | | | Z | Z | Z | Z | | | | | |
| | 5 | D | E | S | T | | | | | | | | | | | | | | | | | | F | A | | | | | | |
| L3 | 6 | Y | Y | Y | | | | | | | | | | | | | | | | | | T | T | T | T | | | | | |
| | 7 | E | T | D | | | | | | | | | | | | | | | | | | | A | C | M | | | | | |
| L4 | 8 | D | D | D | D | | | | | | | | | | | | | | | | | R | R | R | R | | | | | |
| | 9 | E | T | E | | | | | | | | | | | | | | | | | | | | | | | | | | |
| L5 | 0 | L | + | L | L | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| L6 | 2 | < | M | E | N | U | | | | | | | | | | | | | | | | T | R | A | N | S | M | I | T | > |
| | 3 | 3 | 5 | 7 | 7 | | | | | | | | | | | | | | | | | | | | | | | | | |

Figure 4-226

6. Enter six numeric digits represent day, month, and year and press line-select-key L3. See Figure 4-227.

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | | | |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | C | O | N | F | I | G | U | R | A | T | I | O | N | | | | | | I | / | I | | |
| L1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| L2 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| L3 | 5 | D | A | T | E | : | D | A | Y | | M | O | N | T | H | | Y | E | A | R | | | | | | | |
| | 6 | | | | | | 2 | 2 | | | | 0 | 8 | | | | | 9 | 9 | | | | | | | | |
| L4 | 7 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 8 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| L5 | 9 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| L6 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | < | M | E | N | U | | | | | | | | | | | | | | | | | N | E | X | T | > |
| | 3 | 2 | 3 | 0 | 8 | 9 | 9 | | | | | | | | | | | | | | | | | | | | |

Figure 4-227

Global
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7. Select the AFIS configuration to be read or modified from the AFIS configuration Menu Page (Figure 4-228) by pressing adjacent line-select-key. The dates of previously entered configurations are shown in Option 1 to 3. The newest configuration date appears first. Option 4 allows for the entry of a new configuration. Select Option 1 to 4 as desired and Figure 4-229 will be displayed.

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | | | | C | O | N | F | I | G | U | R | A | T | I | O | N | | | | | I | / | I | I |
| | 1 | R | E | A | D | / | C | H | A | N | G | E | | | | | | | | | | | | | |
| L1 | 2 | C | O | N | F | I | G | U | R | A | T | I | O | N | O | F | : | | | | | | | | |
| | 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| L2 | 4 | < | 1 | | D | D | M | M | Y | Y | | | | | | | | | | | | | | | |
| | 5 | | | | | | | | | | | | | | | | | | | | | | | | |
| L3 | 6 | < | 2 | | D | D | M | M | Y | Y | | | | | | | | | | | | | | | |
| | 7 | | | | | | | | | | | | | | | | | | | | | | | | |
| L4 | 8 | < | 3 | | D | D | M | M | Y | Y | | | | | | | | | | | | | | | |
| | 9 | | | | | | | | | | | | | | | | | | | | | | | | |
| L5 | 0 | < | 4 | | N | E | W | | V | E | R | S | I | O | N | | | | | | | | | | |
| | 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| L6 | 2 | < | M | E | N | U | | | | | | | | | | | | | | | | | | | |
| | 3 | | | | | | | | | | | | | | | | | | | | | | | | |

Figure 4-228

8. See Figure 4-229 and perform the following steps:
 - a. Enter complete aircraft registration number (tail number) in the scratch pad line 13 and press line-select-key L1.
 - b. Enter aircraft id in the scratch pad line 13 and press line-select-key L3.
 - c. Enter flight number in line 13 and press line-select-key L5.
 - d. Press line-select-key R6 to go to the next page.

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | | | | C | O | N | F | I | G | U | R | A | T | I | O | N | | | | | 2 | / | I | I |
| | 1 | A | I | R | C | R | A | F | T | | T | A | I | L | | N | U | M | B | E | R | | | | |
| L1 | 2 | X | X | X | X | X | X | | | | | | | | | | | | | | | | | | |
| | 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| L2 | 4 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 5 | A | I | R | C | R | A | F | T | | I | D | | N | U | M | B | E | R | | | | | | |
| L3 | 6 | X | X | | | | | | | | | | | | | | | | | | | | | | |
| | 7 | | | | | | | | | | | | | | | | | | | | | | | | |
| L4 | 8 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 9 | F | L | I | G | H | T | | N | U | M | B | E | R | | | | | | | | | | | |
| L5 | 0 | X | X | X | X | | | | | | | | | | | | | | | | | | | | |
| | 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| L6 | 2 | < | P | R | E | V | I | O | U | S | | | | | | | | | | | N | E | X | T | > |
| | 3 | | | | | | | | | | | | | | | | | | | | | | | | |

Figure 4-229

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

9. See Figure 4-230 and perform the following steps:
 - a. Enter aircraft type in the scratch pad line 13 and press line-select-key L1.
 - b. Enter basic operating weight in the scratch pad line 13 and press line-select-key L2.
 - c. Press line-select-key L3 to toggle separate antenna to yes or no.
 - d. Press line-select-key L4 to toggle default frequency between U.S. DEFAULT and EUROPEAN DEFAULT.
 - e. Press line-select-key R6 to go to the next page.

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | | | |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | C | O | N | F | I | G | U | R | A | T | I | O | N | | | | | 3 | / | I | I | | |
| | A | I | R | C | R | A | F | T | | T | Y | P | E | | | | | | | | | | | | | | |
| L1 | X | X | X | X | X | X | | | | | | | | | | | | | | | | | | | | | |
| | B | A | S | I | C | | O | P | E | R | A | T | I | N | G | W | T | | | | | | | | | | |
| L2 | X | X | X | X | X | X | | | | | | | | | | | | | | | | | | | | | |
| | S | E | P | A | R | A | T | E | | A | N | T | E | N | N | A | | | | | | | | | | | |
| L3 | * | Y | E | S | | | | | | | | | | | | | | | | | | | | | | | |
| | D | E | F | A | U | L | T | | F | R | E | Q | U | E | N | C | Y | | | | | | | | | | |
| L4 | * | U | . | S | . | D | E | F | A | U | L | T | | | | | | | | | | | | | | | |
| L5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| L6 | < | P | R | E | V | I | O | U | S | | | | | | | | | | | | | | N | E | X | T | > |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Figure 4-230

10. See Figure 4-231 and perform the following steps:
 - a. Press line-select-key L1 to toggle the default for Auto RPT Will PWR Up between last state, on, or off.
 - b. Enter the Auto Reporting time interval unless advised differently by the pilot/operator in the scratch pad line 13 and press line-select-key L3.
 - c. Press line-select-key L3 to toggle the Auto Reporting on Ground between YES, and NO.
 - d. Press line-select-key R6 to go to the next page.

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | | | |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | C | O | N | F | I | G | U | R | A | T | I | O | N | | | | | 4 | / | I | I | | |
| | A | U | T | O | | R | P | T | | W | I | L | L | | P | W | R | | U | P | | | | | | | |
| L1 | * | | L | A | S | T | | S | T | A | T | E | | | | | | | | | | | | | | | |
| L2 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | A | U | T | O | | R | P | T | | T | I | M | E | | I | N | T | E | R | V | A | L | | | | | |
| L3 | X | X | | | M | I | N | U | T | E | S | | | | | | | | | | | | | | | | |
| L4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | A | U | T | O | | R | E | P | O | R | T | I | N | G | | O | N | | G | N | D | | | | | | |
| L5 | * | Y | E | S | | | | | | | | | | | | | | | | | | | | | | | |
| L6 | < | P | R | E | V | I | O | U | S | | | | | | | | | | | | | | N | E | X | T | > |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Figure 4-231

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

11. See Figure 4-232 and perform the following steps:
 - a. Press line-select-key L1 to toggle the default for Port 1 between GNS-1000/GNS-X and GNS-500.
 - b. Press line-select-key L3 to toggle the default for Port 2 between GNS-1000/GNS-X and GNS-500
 - c. Press line-select-key L5 to toggle the default for Port 3 between GNS-1000/GNS-X, GNS-500, and NONE.
 - d. Press line-select-key R6 to go to the next page.

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | | | | C | O | N | F | I | G | U | R | A | T | I | O | N | | | | 5 | / | 1 | 1 | |
| | 1 | 4 | 2 | 2 | P | O | R | T | - | 1 | C | O | N | N | E | C | T | E | D | : | | | | | |
| L1 | 2 | * | G | N | S | - | 1 | 0 | 0 | 0 | / | G | N | S | - | X | | | | | | | | | |
| | 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| L2 | 4 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 5 | 4 | 2 | 2 | P | O | R | T | - | 2 | C | O | N | N | E | C | T | E | D | : | | | | | |
| L3 | 6 | * | G | N | S | - | 5 | 0 | 0 | | | | | | | | | | | | | | | | |
| | 7 | | | | | | | | | | | | | | | | | | | | | | | | |
| L4 | 8 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 9 | 4 | 2 | 2 | P | O | R | T | - | 3 | C | O | N | N | E | C | T | E | D | : | | | | | |
| L5 | 0 | * | N | O | N | E | | | | | | | | | | | | | | | | | | | |
| | 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| L6 | 2 | < | P | R | E | V | I | O | U | S | | | | | | | | | | | N | E | X | T | > |
| | 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |

Figure 4-232

12. See [Figure 4-233](#) and perform the following steps:
 - a. Press line-select-key L1 to toggle the default for Port 1 between 429, 571, and OFF.
 - b. Press line-select-key L3 to toggle the default for Port 2 between 429, 571, and OFF.
 - c. Press line-select-key L5 to toggle the default for Port 3 between 429, 571, and OFF.
 - d. Press line-select-key R6 to go to the next page.

NOTE:

For 739 MCDU select L1 or L2 or L3 to indicate which port is connected.

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | C | O | N | F | I | G | U | R | A | T | I | O | N | | | | 6 | / | 1 | 1 | |
| L1 | 4 | 2 | 9 | P | R | I | M | A | R | Y | | P | O | R | T | | I | S | : | | | | | | |
| | * | | 4 | 2 | 9 | | | | | | | | | | | | | | | | | | | | |
| L2 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 4 | 2 | 9 | S | E | C | O | N | D | A | R | Y | | P | O | R | T | | I | S | : | | | | |
| L3 | * | | 5 | 7 | 1 | | | | | | | | | | | | | | | | | | | | |
| L4 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 4 | 2 | 9 | T | E | R | T | I | A | R | Y | | P | O | R | T | | I | S | : | | | | | |
| L5 | * | | O | F | F | | | | | | | | | | | | | | | | | | | | |
| L6 | < | P | R | E | V | I | O | U | S | | | | | | | | | | | | N | E | X | T | > |
| | | | | | | | | | | | | | | | | | | | | | | | | | |

Figure 4-233

13. Select whether stored flight plans, messages and weather will be retained in memory when power is interrupted. See Figure 4-234.
 - a. Press line-select-key L1 to toggle the default for Auto Weather Will PWR Up between LAST STATE, ON, and OFF.
 - b. Press line-select-key L3 to toggle the default for Save FPL, MSG, WX between YES or NO.
 - c. Press line-select-key R6 to go to the next page.

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | | |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | C | O | N | F | I | G | U | R | A | T | I | O | N | | | | 7 | / | 1 | 1 | | |
| L1 | A | U | T | O | | W | E | A | T | H | E | R | | W | I | L | L | | P | W | R | | U | P | | |
| | * | | L | A | S | T | | S | T | A | T | E | | | | | | | | | | | | | | |
| L2 | S | A | V | E | | F | P | L | , | M | S | G | , | W | X | | A | T | | P | W | R | | | | |
| | I | N | T | E | R | R | U | P | T | ? | | | | | | | | | | | | | | | | |
| L3 | * | | Y | E | S | | | | | | | | | | | | | | | | | | | | | |
| L4 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| L5 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| L6 | < | P | R | E | V | I | O | U | S | | | | | | | | | | | | | N | E | X | T | > |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |

Figure 4-234

14. This step is only applicable to GNS-1000, GNS-X, GNS-XES, GNS-XL or GNS-XLS with Satellite Data Communication System option DMU P/N 400-045500-2011. If other versions of the DMU are used, proceed to step 15. If applicable, select Satcom AERO-C Option for Honeywell satellite system, ARINC741 for Aeronautical Standard (ARINC 741) satellite system and SATFONE for SATFONE system. ARINC 741 and SATFONE can only be selected when using DMU P/N 400-045500-2011.

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See Figure 4-235.

- a. Press line-select-key L1 to toggle the default for SAT System Available between NO, AERO-C, ARINC741, and SATFONE.
- b. Press line-select-key L3 to toggle the default for SAT Network Will PWR Up between LAST STATE, ON or OFF.
- c. Press line-select-key R6 to go to the next page.

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | C | O | N | F | I | G | U | R | A | T | I | O | N | | | | | 8 | / | I | I |
| | S | A | T | | S | Y | S | T | E | M | | A | V | A | I | L | A | B | L | E | : | | | | |
| L1 | * | A | E | R | O | - | C | | | | | | | | | | | | | | | | | | |
| L2 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | S | A | T | | N | E | T | W | O | R | K | | W | I | L | L | | P | W | R | | U | P | : | |
| L3 | * | L | A | S | T | | S | T | A | T | E | | | | | | | | | | | | | | |
| L4 | | | | | | | | | | | | | | | | | | | | | | | | | |
| L5 | | | | | | | | | | | | | | | | | | | | | | | | | |
| L6 | < | P | R | E | V | I | O | U | S | | | | | | | | | | | | N | E | X | T | > |
| | | | | | | | | | | | | | | | | | | | | | | | | | |

Figure 4-235

15. The master port refers to the use of one port by the software to have priority over the data from other ports (i.e. CDU 2). Honeywell recommends use of Port 1. To designate Port 1 as the Master 422 Port, toggle line-select-key L1 until Port 1 is displayed, see [Figure 4-236](#).
 - a. Press line-select-key L3 to toggle the Use DMU WT-ON-WHEEL Input between YES or NO.
 - b. If Airline ID XJ, DH or CRJ has been entered, the ACARS REPORTS will be one of the available options when L5 is toggling through the feature selection options.
 - c. If Airline ID is GS, ACARS REPORTS can be accessed by entering .A or .M on the scratch pad, line 13, and then press line-select-key L5.

NOTE:

OFF/ON REPORTS = logging takeoff and landing times/
 OPTION 1 = customer defined non-standard AFIS features.
 OFF REPORT = logging takeoff times.
 NO OFF/ON REPORTS = no logging of takeoff and landing times.
 ACARS REPORTS = Customer defined non-standard AFIS features.

- d. Press line-select-key R6 to go to the next page.

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | | |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | C | O | N | F | I | G | U | R | A | T | I | O | N | | | | 9 | / | 1 | 1 | | |
| L1 | 1 | M | A | S | T | E | R | | 4 | 2 | 2 | | P | O | R | T | | I | S | | | | | | | |
| | 2 | * | | P | O | R | T | | 1 | | | | | | | | | | | | | | | | | |
| L2 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 4 | | | | | | | | | | | | | | | | | | | | | | | | | |
| L3 | 5 | U | S | E | | D | M | U | | W | T | - | O | N | - | W | H | E | E | L | | I | N | P | T | |
| | 6 | * | | Y | E | S | | | | | | | | | | | | | | | | | | | | |
| L4 | 7 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 8 | | | | | | | | | | | | | | | | | | | | | | | | | |
| L5 | 9 | F | E | A | T | U | R | E | | S | E | L | E | C | T | I | O | N | | | | | | | | |
| | 0 | * | | N | O | | O | N | / | O | F | F | | R | E | P | O | R | T | S | | | | | | |
| L6 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | < | P | R | E | V | I | O | U | S | | | | | | | | | | | | N | E | X | T | > |
| | 3 | | | | | | | | | | | | | | | | | | | | | | | | | |

Figure 4-236

16. If ACARS REPORT has been selected, see Figure 4-237; otherwise, proceed to step 17.
 If Airline ID of DH or CRJ or .A has been entered, the following page selections will be available.

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | | |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | | | | C | O | N | F | I | G | U | R | A | T | I | O | N | | | | 1 | 0 | / | 1 | 1 | |
| L1 | 1 | A | R | I | N | C | | | | | U | S | E | | S | A | T | E | L | L | I | T | E | | | |
| | 2 | * | Y | E | S | | | | | | | | | | | | | | | | Y | E | S | * | | |
| L2 | 3 | S | I | T | A | | | | | | | U | S | E | | G | D | C | | A | C | K | | | | |
| | 4 | * | Y | E | S | | | | | | | | | | | | | | | | Y | E | S | * | | |
| L3 | 5 | A | T | O | | F | O | R | M | F | E | E | D | | T | I | T | L | E | | A | C | A | R | S | |
| | 6 | * | N | O | | | | | | | | | | | | | | | | | Y | E | S | * | | |
| L4 | 7 | P | R | I | N | T | E | R | | 1 | | | | | | | S | A | V | E | | R | P | T | | |
| | 8 | * | Y | E | S | | | | | | | | | | | | | | | | Y | E | S | * | | |
| L5 | 9 | P | R | I | N | T | E | R | | 2 | | | | | A | C | A | R | S | | T | I | M | E | | |
| | 0 | * | Y | E | S | | | | | | | | | | | | | | | | N | O | | * | | |
| L6 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | < | P | R | E | V | I | O | U | S | | | | | | | | | | | | N | E | X | T | > |
| | 3 | | | | | | | | | | | | | | | | | | | | | | | | | |

Figure 4-237

17. Use adjacent line-select-key to toggle and select the configuration items. Press line-select-key R6 to go to the next page (See [Figure 4-238](#)).
 If Airline ID of XJ or .M has been entered, the following page selections will be available.

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | C | O | N | F | I | G | U | R | A | T | I | O | N | | | | 1 | 0 | / | 1 | 1 |
| L1 | A | R | I | N | C | | | | | | | | | | T | I | T | L | E | | A | C | A | R | S |
| | * | Y | E | S | | | | | | | | | | | | | | | | | | Y | E | S | * |
| L2 | S | I | T | A | | | | | | | | | | | A | C | A | R | S | | T | I | M | E | |
| | * | Y | E | S | | | | | | | | | | | | | | | | | | N | O | * | |
| L3 | A | T | O | | F | O | R | M | F | E | E | D | | | | | | | | | | | | | |
| | * | N | O | | | | | | | | | | | | | | | | | | | | | | |
| L4 | P | R | I | N | T | E | R | | 1 | | | | | | | | | | | | | | | | |
| | * | Y | E | S | | | | | | | | | | | | | | | | | | | | | |
| L5 | P | R | I | N | T | E | R | | 2 | | | | | | | | | | | | | | | | |
| | * | Y | E | S | | | | | | | | | | | | | | | | | | | | | |
| L6 | < | P | R | E | V | I | O | U | S | | | | | | | | | | | | | N | E | X | T |
| | > | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |

Figure 4-238

- Use adjacent line-select-key to toggle and select the configuration items. Press line-select-key R6 to go to the next page.

Write configuration data to the Configuration Module by pressing L3. See Figure 4-239.

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | C | O | N | F | I | G | U | R | A | T | I | O | N | | | | 1 | 1 | / | 1 | 1 |
| L1 | | W | R | I | T | E | | C | O | N | F | I | G | U | R | A | T | I | O | N | | | | | |
| | | D | A | T | A | | T | O | | M | O | D | U | L | E | ? | | | | | | | | | |
| L2 | < | N | O | | | | | | | | | | | | | | | | | | | | | | |
| L3 | < | Y | E | S | | | | | | | | | | | | | | | | | | | | | |
| L4 | | | | | | | | | | | | | | | | | | | | | | | | | |
| L5 | | | | | | | | | | | | | | | | | | | | | | | | | |
| L6 | < | P | R | E | V | I | O | U | S | | | | | | | | | | | | | | | | |
| | > | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |

Figure 4-239

- Power Off DMU and restart.

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

4.8 AFIS DATA MANAGEMENT UNIT (DMU) (ProComm Plus™ Reconfiguration Procedure)

4.8.1 General

This section contains instructions for configuring the AFIS DMU through the test port using a personal computer (PC) and Symantec Corporation's ProComm Plus™ for Windows software. The aircraft specific configuration settings reside on the configuration module, not in the DMU itself. Access to the configuration module is through the DMU test port via a PC (laptop computer) using the interconnect cable (see figure 4-240) described herein. An advantage of storing the configuration settings on a configuration module is to allow easy replacement or exchange of the DMU without having to reconfigure the DMU each time it's removed.

NOTE:

The purpose of this aid is to provide information on configuring the AFIS system using ProComm Plus™ software and a laptop computer. It is assumed that the user will be able to install ProComm Plus™ according to the manufacturers recommended procedure. There are numerous versions of ProComm Plus™ software, this procedure is general in nature and readers may find some incongruity depending on the version of ProComm™ being used.

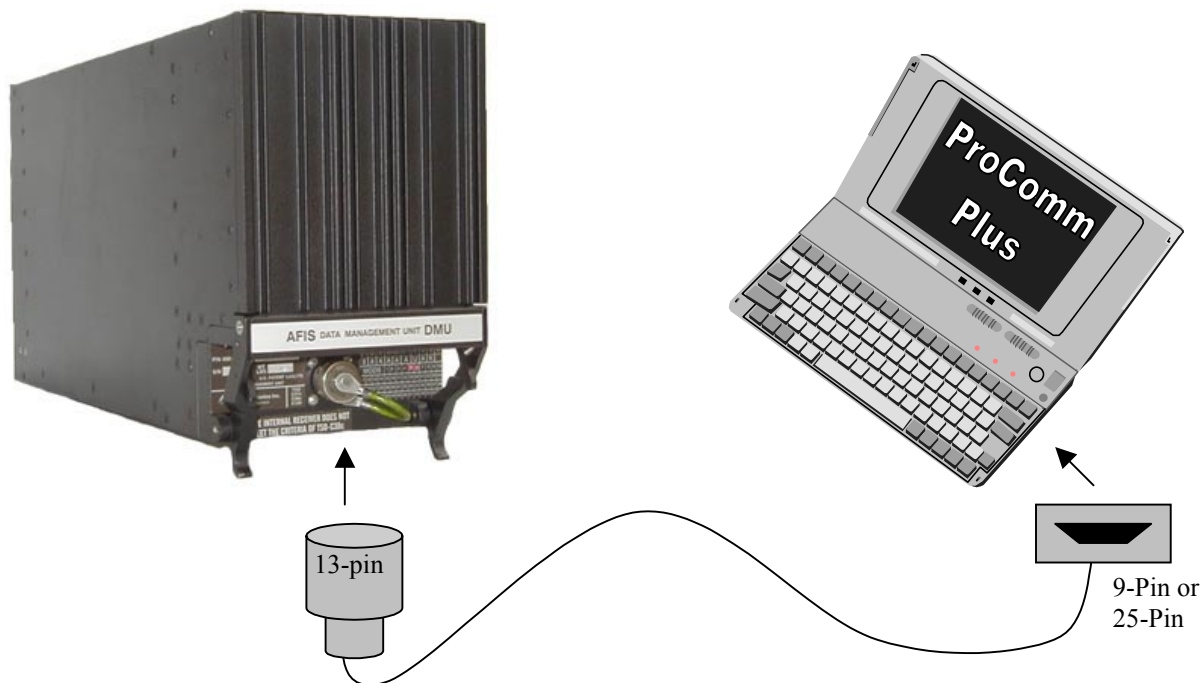


Figure 4-240
Interconnect Cable

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

4.8.2 Equipment Required

- A. AFIS System. DMU P/N 400-045500-XXXX Mod 6 and above.
- B. Computer: (IBM or compatible 386, 486, or higher).
 - 1. Windows 3.1 or higher in enhanced mode.
 - 2. A minimum of 4 Megabytes of RAM.
 - 3. Operating system PC-DOS or MS-DOS, version 3.1 or higher.
- C. ProComm Plus™ (for Windows software).
- D. User Fabricated Interconnect cable.

The user may construct the interconnect cable wiring to accommodate either a 9-Pin serial or 25-Pin D-Sub PC RS-232 serial port depending on system availability. Pinouts for both are described below.

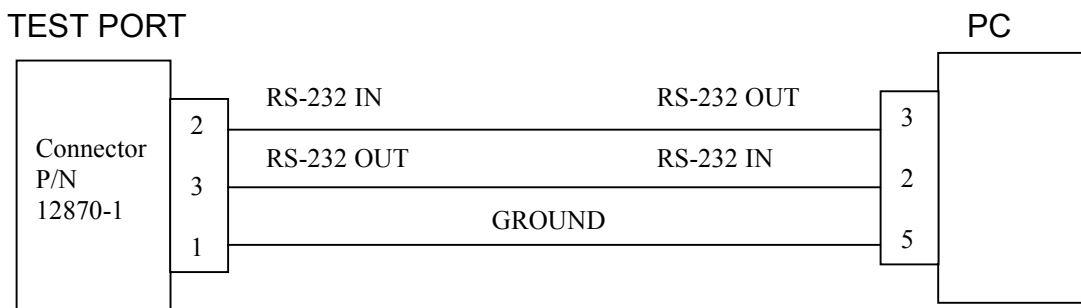


Figure 4-241
 Test Port to 9-Pin PC Connector Pinout Diagram

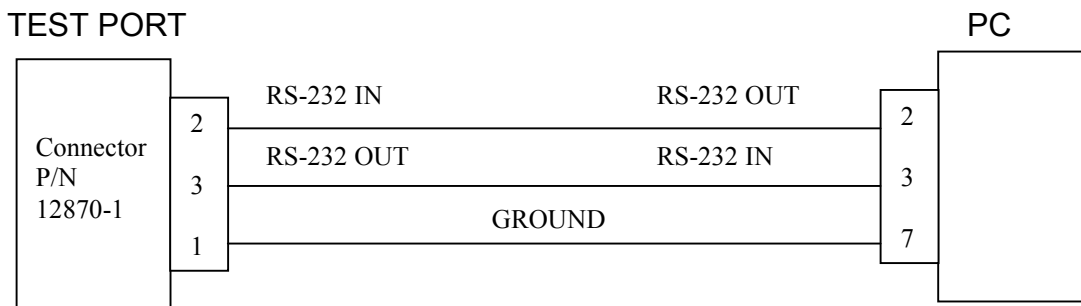


Figure 4-242
 Test Port to 25-Pin PC Connector Pinout Diagram

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AIRBORNE FLIGHT INFORMATION SYSTEM

4.8.3 Configuration of Terminal Mode

1. Follow the manufacturer instruction for installing ProComm Plus™.
2. Run the ProComm Plus™ program. (Note: If you're using a DOS version, it will be necessary to change to the PCPLUS directory from the DOS prompt)
3. The Terminal Window should now be displayed.
4. Select Port Settings from the Setup Menu, or access Port Settings with the command ALT-P (see [figure 4-243](#)).
5. Set your Port settings as follows:
 - a) BAUD RATE: 9600
 - b) PARITY: None
 - c) DATA BIT: 8
 - d) STOP BITS: 1
 - e) DUPLEX: Full
 - f) BREAK LENGTH: 5 or 350 millisecs
 - g) SOFTWARE FLOW CONTROL (Xon/Xoff): Set Off
 - h) Save your settings (ALT-S to save).
6. Set your Data Modem/Connection Settings as follows:
 - a) Select Connection Setup.
 - b) Select the local Comm port to be used (unique to your PC).
 - c) Deselect the following:
 - 1) Use Modem Pacing
 - 2) Drop DTR to hang up
 - 3) Drop DTR between calls
 - 4) Use hardware flow control
 - d) Ensure that the baud rate is set at 9600.
7. Click on Terminal Options and ensure that the following are selected: (see [figure 4-244](#)).
 - a) Current Terminal: ADM31, TVI925, or TVI950.
 - b) Terminal Update: Incremental
 - c) Terminal Size: Rows 24, Columns 80
 - d) Terminal Keyboard file: ADM31, TVI925, or TVI950.
 - e) Enquiry OFF
 - f) Keep cursor in view
 - g) Screen scroll
 - h) Strip bit 8
 - i) Destructive Backspace
 - j) Tab stops every 8 positions
 - k) Line wrap
 - l) Incoming CR to CR/LF
 - m) Block cursor
 - n) Disable host printing
- 8) Click OK or enter ALT-S to save and return to the Terminal Window.

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| CURRENT SETTINGS: 9600,N,8,1,COM1 | | | | | |
|---|--------------|-----------|-----------|------|------|
| BAUD RATE | PARITY | DATA BITS | STOP BITS | PORT | |
| 1) 300 | N) NONE | Alt-7) 7 | Alt-1) 1 | F1) | COM1 |
| 2) 1200 | E) EVEN | Alt-8) 8 | Alt-2) 2 | F2) | COM2 |
| 3) 2400 | O) ODD | | | F3) | COM3 |
| 4) 4800 | M) MARK | | | F4) | COM4 |
| 5) 9600 | S) SPACE | | | F5) | COM5 |
| 6) 19200 | | | | F6) | COM6 |
| 7) 38400 | | | | F7) | COM7 |
| 8) 57600 | Alt-N) N/8/1 | | | F8) | COM8 |
| 9) 115200 | Alt-E) E/7/1 | | | | |
| Esc) Exit Alt-S) Save and Exit YOUR CHOICE: _ | | | | | |

Figure 4-243
Sample Port Settings

The screenshot shows the 'PROCOMM PLUS PCSETUP' window with the 'TERMINAL OPTIONS' section. The options are as follows:

| PROCOMM PLUS SETUP UTILITY | | TERMINAL OPTIONS |
|---|-------------|-----------------------------------|
| A- Terminal emulation | ADM 31 | K- EGA/VGA true underline ... OFF |
| B- Duplex | FULL | L- Terminal width |
| C- Soft flow ctrl (XON/XOFF) .. | OFF | M- ANSI 7 or 8 bit commands .. |
| D- Hard flow ctrl (RTS/CTS) .. | OFF | |
| E- Line wrap | ON | |
| F- Screen scroll | ON | |
| G- CR translation | CR | |
| H- BS translation | DESTRUCTIVE | |
| I- Break length (milliseconds) .. | 350 | |
| J- Enquiry (ENQ) | OFF | |
| Alt-Z: Help Press the letter of the option to change: _ Esc: Exit | | |

Figure 4-244
Sample Terminal Options

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AIRBORNE FLIGHT INFORMATION SYSTEM

4.8.4 Programming the AFIS DMU

- 1) Attach the interconnect cable to the DMU Test Port, and to the laptop.
- 2) Start the ProComm™ program. Windows users click the ProComm Plus™ icon to get to the Terminal Window.
- 3) Apply power to the DMU. The DMU will indicate that it is ready by sending a string of U's which appear on the screen at the CMD prompt as indicated in figure 4-245 below.

NOTE:

The Caps Lock on your computer keyboard must be locked "ON".

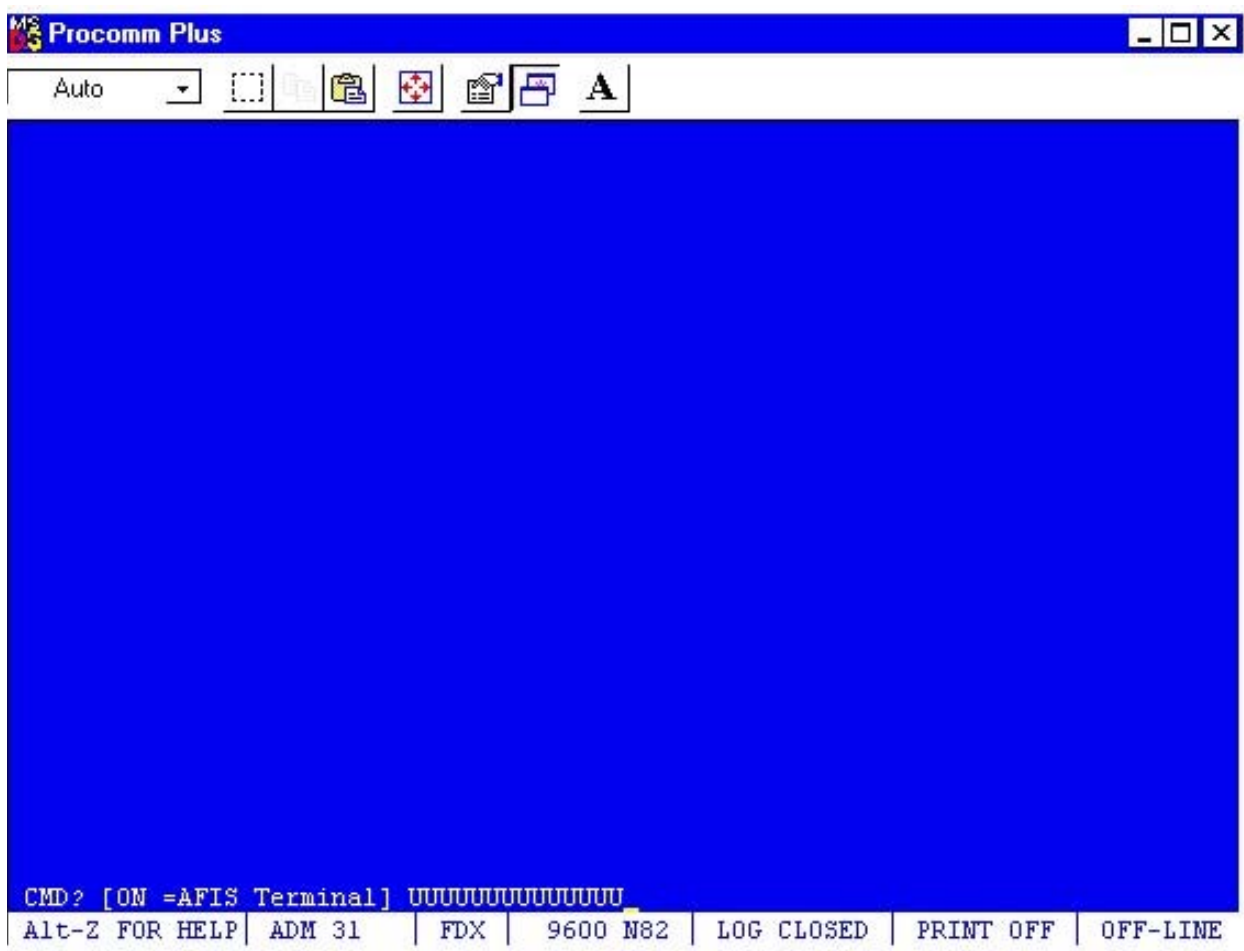


Figure 4-245
Terminal Window

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AIRBORNE FLIGHT INFORMATION SYSTEM

- 4) Type ON to open the AFIS Terminal.
- 5) Press ENTER. The message "terminal mode on" will appear briefly followed by the terminal display (see figure 4-246 below).

```

MS Procomm Plus
Auto
DMU PROCESSOR TEST PORT COMMANDS
ST      Exec self-test          SR      Rtns self-test results
CNF     Returns configuration data  SWP     Returns Software PN
TSTCNF  Tests configuration module  CM      Config Module Menu
D  aaaa Dsp mem from hex addr aaaa  SCI     Sat.Aero-C Information
Dl aaaa      Dsp l mem word at hex addr aaaa
W  aaaa dddd  Wr data dddd to addr aaaa
FL dddd aaaa c  Fill from addr aaaa with data dddd, c words
RIO aaaa      Input I/O word from port aaaa
WIO aaaa dddd  Output I/O word dddd to port aaaa

MODEM or SATCOM BOARD TEST PORT COMMANDS
MD or SD aa aaaa  Dsp mem from hex addr aa aaaa
MRD  Rd discrete inputs      MWD  write discrete outputs
MDl or SDl aa aaaa      Dsp l mem word at hex addr aa aaaa
MW or SW aa aaaa dddd    Wr data dddd to addr aa aaaa
VXMT xxx.yyy m  xxx(mhz),yyy(khz),m(mode 0=wrap,1=txnomod,2=txmod)
VFRQ xxx.yyy Set VHF XCVR freq: xxx MHZ, yyy KHZ
MSWP or SATSWP  Return Software PN
-----
ON  Terminal mode on          OFF Terminal mode off

CMD? [M=Menu]
Alt-Z FOR HELP | ADM 31 | FDX | 9600 N82 | LOG CLOSED | PRINT OFF | OFF-LINE
  
```

Figure 4-246
Terminal Display Page

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- 6) From the command line, type CM
- 7) Press ENTER
- 8) The Configuration Module Menu will be displayed (see figure 4-247 below).

```
Procomm Plus
Auto
CONFIGURATION MODULE MENU
RDCNF - Read Configuration Module.
DEFCNF - Set Configuration Variables To Default Values.
PGMCNF - Program Configuration Module Using Above Data.
CC nn - Display allowed values of Configuration parameter #nn.
CC nn value - Change Configuration parameter #nn to value.

01 - Tail number: N1234
02 - ID Code: GS
03 - Flight Number: 0001
04 - Master Port: 1
05 - Port 1: GNS-1000/GNS-X
06 - Port 2: Graphical GNS-XLS
07 - Port 3: GNS-1000/GNS-X
08 - Separate Antenna (Y/N): Y
09 - Default Frequency: U.S. Default
10 - Auto Report Interval: 16 Min.
11 - Aircraft Type: W1124
12 - Basic Operating Weight: 23000
13 - Features Flag: OFF/ON Reports
14 - 429 Port A: 571 Intf.
15 - 429 Port B: 429 Intf.
16 - 429 Port C: 429 Intf.
17 - Auto RPT Config: Last State
18 - Save FPL,MSGs,WX: No
19 - Auto Weather: Last State
20 - Satellite Comm: AERO-C
21 - Satellite Network: Last State
22 - Auto RPT on Ground: Yes
23 - VHF Network: Yes
24 - Cabin Terminal Port 1: Cabin Terminal
25 - Cabin Terminal Port 2: Cabin Terminal
26 - OFF & ON triggered by: Use STD DEFAULT

CM - Prints this menu again.
M - Main Menu.
CMD? [M=Menu]
Alt-Z FOR HELP | ADM 31 | FDX | 9600 N81 | LOG CLOSED | PRINT OFF | OFF-LINE
```

Figure 4-247
Configuration Module Menu

- 9) For specifics on choosing the parameters shown above please reference the appropriate section of the AFIS Installation manual. To change a parameter, at the CMD prompt type:

CC NN VALUE (then press ENTER)

Where:

CC = Change Configuration

NN = The two-digit line number you wish to change

VALUE = The parameter you wish to change/add

NOTE:

To view the parameters which are permitted, type: CC NN (then press ENTER)

Example:

To change the tail number to N5432, type: CC 01 N5432 (then press ENTER).

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AIRBORNE FLIGHT INFORMATION SYSTEM

NOTE:

Don't forget to use spaces between the CC, NN, and VALUE characters as shown in the example above.

- 10) After you are finished changing the configuration data, type: PGM CNF (then press ENTER) Entering this command will program the AFIS configuration module with the settings from the ProComm™ Configuration Module Menu page shown in [Figure 4-247](#) above.
- 11) The configuration change is now complete. To return to the Main menu, at the command prompt type: M (then press ENTER).
- 12) At the command prompt, type: OFF (then press ENTER) to turn off the terminal mode.
- 13) Turn OFF power the DMU, and close all ProComm Plus™ windows to exit ProComm™.
- 14) End of Procedure.

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AIRBORNE FLIGHT INFORMATION SYSTEM

4.9 GENERAL

This section presents the basic test procedure that should be performed after the AFIS system has been installed.

If AFIS is installed with a GNS-500A Series 4/5 system, be sure the GNS-500A System Checkout is done per Report 1228, GNS-500A Series 4/5 Installation Manual, before performing AFIS checkout.

If AFIS is installed with a GNS-1000 system, be sure the GNS-1000 System Checkout is done per Report 1158, GNS-1000 Flight Management System Installation Manual, before performing AFIS checkout.

If AFIS is installed with a GNS-X system, be sure the GNS-X System Checkout is done per Report 1275, GNS-X NAV Management System Installation Manual, before performing AFIS checkout.

Verify that AFIS configuration has been performed per [Section 4](#), AFIS CONFIGURATION.

NOTE:

GNS-X applies to GNS-X, GNS-XES, GNS-XL and GNS-XLS. If configured for ACARS (Special Features item 5), temporarily reconfigure with Airline ID of GS and Special Features, NO OFF/ON REPORTS (item 4). When finished with this checkout reconfigure Airline ID and SPECIAL FEATURES as appropriate.

4.10 SYSTEM TEST AND CHECKOUT WITH CUSTOMER SUPPLIED PRE-PROGRAMMED AFIS DISK

A. Insert pre-programmed AFIS disk in DTU.

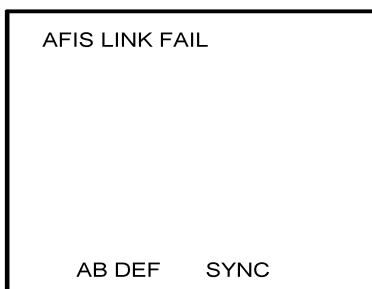
NOTE:

Disk must be programmed for the configured aircraft type and must be programmed with AFIS Flight Plans.

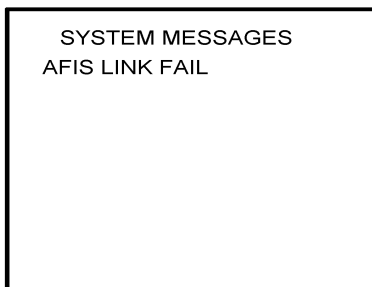
B. Energize the system to initiate SELF TEST.

C. Press the MSG Key to display System Message page. If the AFIS system cannot communicate with the Global Navigation System an AFIS LINK FAIL message appears. See [Figure 4-248](#) and [4-249](#).

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AIRBORNE FLIGHT INFORMATION SYSTEM



GNS-500A
SYSTEM MESSAGE PAGE
Figure 4-248



GNS-1000 OR GNS-X
SYSTEM MESSAGE PAGE
Figure 4-249

1. If the message AFIS LINK FAIL appears on the GNS-500 system message page:
 - (a) Check aircraft wiring connection between CDU and DMU per [Section 3](#).
 - (b) Verify that the + 28 VDC is present on the DMU at the appropriate pin locations as defined in [Section 3](#).
 - 1 Pin designation for + 28 VDC on DMU PN 42000-XX-XX is J1-5, J1-3 with a return on J1-4.
 - 2 Pin designation for + 28 VDC on DMU PN 400-045500-XXXX is J2-6, J2-7 with a return on J2-1 and J2-2.
2. If the message AFIS LINK FAIL appears on the GNS-1000 Message Page:
 - (a) Check aircraft wiring connection between the FMC and DMU per [Section 3](#).
 - (b) Verify that the + 28 VDC is present on the DMU at the appropriate pin locations as defined in [Section 3](#).

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- 1 Pin designation for + 28 VDC on DMU PN 42000-XX-XX is J1-5, J1-3 with a return on J1-4.
 - 2 Pin designation for + 28 VDC on DMU PN 400-045500-XXXX is J2-6, J2-7 with a return on J2-1 and J2-2.
3. If the message AFIS LINK FAIL appears on the GNS-X Message Page:
- (a) Check aircraft wiring connection between the NMU and DMU and between the CDU and DMU (+ 28 VDC Switched On Power Control) per [Section 3](#).
 - (b) Verify that the + 28 VDC is present on the DMU at the appropriate pin locations as defined in [Section 3](#).
 - 1 Pin designation for + 28 VDC on DMU PN 42000-XX-XX is J1-5, J1-3 with a return on J1-4.
 - 2 Pin designation for + 28 VDC on DMU PN 400-045500-XXXX is J2-6, J2-7 with a return on J2-1 and J2-2.
4. If the message AFIS CONFIG CHG is displayed, verify that the AFIS configuration module is programmed per [Section 4](#), AFIS CONFIGURATION.
5. If the message AFIS CONFIG FAIL is displayed, check wiring connection between the Configuration Module and the DMU.
6. If the message AFIS CONFIG LOST is displayed, check wiring connection between the Configuration Module and the DMU.
- D. If no AFIS failure messages appear, release MSG Key and CRT will display the Initialization Page. See [Figure 4-250](#) or [Figure 4-251](#)

```
DATE          22FEB92
GMT           22:25

IDENT  -----
POS   N 33 38.7
      W117 51.5

PROG 5M      BFDf/E
```

GNS-1000 OR GNS-X
INITIALIZATION PAGE
Figure 4-250

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

| | |
|-------|------------------------|
| DATE | 22FEB92 |
| GMT | 22:25 |
| IDENT | ---- |
| POS | N 33 38.7 W117 51.5 |
| PROG | 03 |

GNS-1000 OR GNS-X
INITIALIZATION PAGE
Figure 4-251

- E. With cursor positioned over the DATE field, perform the following:
1. To accept DATE display, press ENTER key.
 2. To enter new date make numerical entry from keyboard in order of day-month-year and press ENTER key.

NOTE:

For example, 5 Feb 1992 would be entered as 050292. Errors in fields may be corrected as follows: If incorrect digit is entered in a field with cursor still over the field the BACK key may be used to erase the digit. To correct the field after the field has been entered or to enter a new date use the ↓ key to position cursor over field and enter the new date.

- F. Observe that the cursor is over the GMT field after the date was entered. If GMT is correct, press ENTER. If the GMT requires updating, update GMT in the order of hours then minutes and press ENTER.
- G. Present Position Entry Procedure
1. Observe that the cursor is over the IDENT field. Enter IDENT or accept existing IDENT and press ENTER.
 2. If system does not recognize the entered IDENT, the Waypoint page should appear.
 3. Insert present position coordinates or accept existing coordinates by placing cursor over the coordinates indicated and press ENTER. AFIS Flight Plan List Page appears. See [Figure 4-252](#).
- H. Verify that the AFIS Flight Plan List Page displays the programmed Flight Plan.

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

```
AFIS FLT PLAN LIST

CYUL-KJFK 06JAN92
KJFK-KORD 06JAN92
KORD-KSNA 06JAN92
KSNA-KSTL 06JAN92
```

Figure 4-252

1. If the NO DISK message appears, verify that the pre-programmed AFIS disk is in the DTU. If the message persists, check wiring between the DMU and DTU per [Section 3](#). See Figure 4-253.

```
AFIS FLT PLAN LIST

NO DISK
```

Figure 4-253

- I. SEND MESSAGE Test Procedure for AFIS Users NOT EQUIPPED with Satellite Data Communications System (System Functional Test)

NOTE:

Aircraft must be in range of ARINC/ACARS or SITA Aircomm, or ground station and the appropriate ground network must be enabled for message to be sent to and received from the Global Data Center.

1. Press the DATA key on the GNS-500A or the PLAN key or AFIS key on the GNS-1000 or GNS-X until the AFIS MENU Page appears. See Figures 4-254 through 4-256.

```
AFIS MENU

1 AFIS FLT PLAN
2 SIGMETS
3 TERM WX-WINDS
4 RECALL AFIS FPL
5 SEND AFIS MSG
6 DISPL AFIS MSG
7 OPERATING MODES
```

Figure 4-254

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

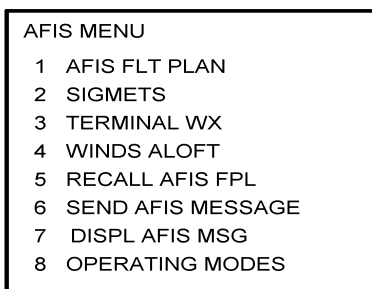


Figure 4-255

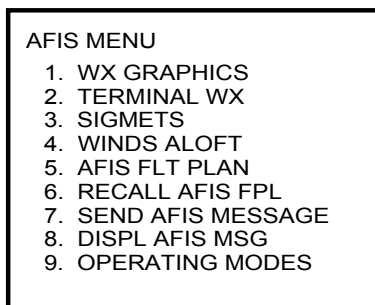


Figure 4-256

2. Position Cursor over option, SEND AFIS MSG, and press ENTER. MESSAGE page is displayed. See Figure 4-257.

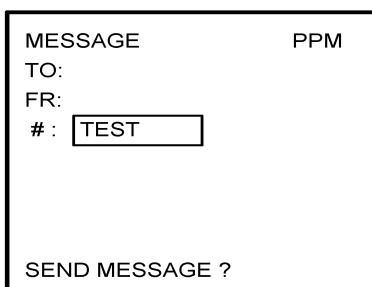


Figure 4-257

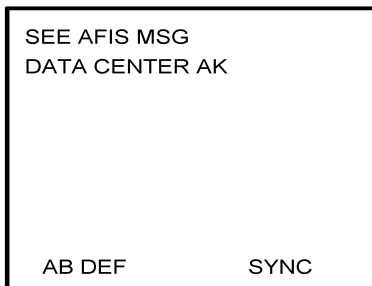
3. Position Cursor over the # field and insert the word TEST.
4. Press ENTER until cursor is over SEND MESSAGE? field.
5. Press ENTER to send the TEST message.
6. When MSG annunciator blinks, press MSG key. SEE AFIS MSG appears on the System Message Page. See [Figure 4-258](#) or [Figure 4-259](#).

NOTE:

If ARINC/ACARS or SITA Aircomm, or ground station is not within receiving range, the message NO COMM is displayed on the message page.

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

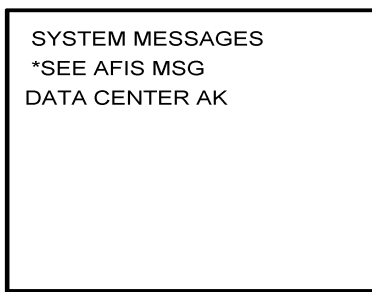
For Aircraft equipped with the Antenna Switching Unit, if DATA LINK DISABLED message appears, enable the AFIS air to ground data link.



SEE AFIS MSG
DATA CENTER AK

AB DEF SYNC

GNS-500A
SYSTEM MESSAGE PAGE
Figure 4-258

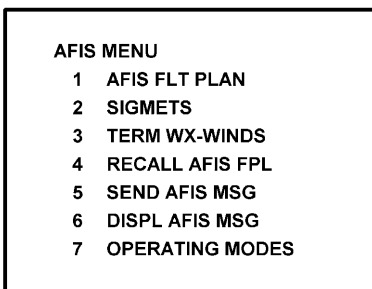


SYSTEM MESSAGES
*SEE AFIS MSG
DATA CENTER AK

GNS-1000 OR GNS-X
SYSTEM MESSAGE PAGE
Figure 4-259

7. Press DATA key on the GNS-500A or Plan key or AFIS key on the GNS-1000 or GNS-X until the AFIS MENU page appears.

8. Position Cursor over option, DISPL AFIS MSG (see Figures 4-260 through 4-262) and press ENTER. AFIS MESSAGE page is displayed with message from Global Data Center. See Figure 4-263.



AFIS MENU

- 1 AFIS FLT PLAN
- 2 SIGMETS
- 3 TERM WX-WINDS
- 4 RECALL AFIS FPL
- 5 SEND AFIS MSG
- 6 DISPL AFIS MSG
- 7 OPERATING MODES

Figure 4-260

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

```
AFIS MENU
1 AFIS FLT PLAN
2 SIGMETS
3 TERMINAL WX
4 WINDS ALOFT
5 RECALL AFIS FPL
6 SEND AFIS MESSAGE
7 DISPL AFIS MSG
8 OPERATING MODES
```

Figure 4-261

```
AFIS MENU
1. WX GRAPHICS
2. TERMINAL WX
3. SIGMETS
4. WINDS ALOFT
5. AFIS FLT PLAN
6. RECALL AFIS FPL
7. SEND AFIS MESSAGE
8. DISPL AFIS MSG
9. OPERATING MODES
```

Figure 4-262

```
AFIS MESSAGE

20-JAN-92 21:08Z
TEST MESSAGE
RECEIVED AT GLOBAL
DATA CENTER.
```

Figure 4-263

J. SEND MESSAGE Test Procedure for AFIS Users EQUIPPED with Satellite Data Communication System (System Functional Test).

1. Using VHF Network to Send Test Message

NOTE:

Aircraft must be in range of ARINC/ACARS or SITA Aircomm, or ground station and the appropriate ground network must be enabled for message to be sent to and received from the Global Data Center.

- (a) Press the DATA key on the GNS-500A or the PLAN key or AFIS key on the GNS-1000 or GNS-X until the AFIS MENU page appears. See [Figures 4-264 through 4-266](#).

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

```
AFIS MENU
1 AFIS FLT PLAN
2 SIGMETS
3 TERM WX-WINDS
4 RECALL AFIS FPL
5 SEND AFIS MSG
6 DISPL AFIS MSG
7 OPERATING MODES
```

Figure 4-264

```
AFIS MENU
1 AFIS FLT PLAN
2 SIGMETS
3 TERMINAL WX
4 WINDS ALOFT
5 RECALL AFIS FPL
6 SEND AFIS MESSAGE
7 DISPL AFIS MSG
8 OPERATING MODES
```

Figure 4-265

```
AFIS MENU
1. WX GRAPHICS
2. TERMINAL WX
3. SIGMETS
4. WINDS ALOFT
5. AFIS FLT PLAN
6. RECALL AFIS FPL
7. SEND AFIS MESSAGE
8. DISPL AFIS MSG
9. OPERATING MODES
```

Figure 4-266

(b) Position Cursor over option, OPERATING MODES, and press ENTER. OPERATING MODES page is displayed. See Figure 4-267.

```
OPERATING MODES

AUTO REPORT   ON
AUTO WX UPDT  ON
VHF NETWORK   ON
SAT NETWORK   OFF

ACTIVE LINK:   ARINC
```

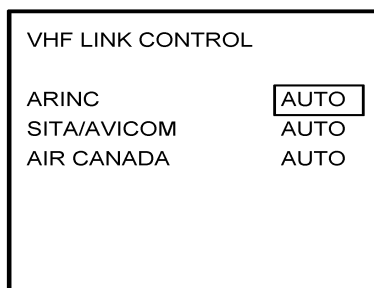
Figure 4-267

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

- (c) Verify VHF NETWORK is ON and SAT NETWORK is OFF or perform the following:

To turn VHF NETWORK on, position cursor over OFF option of VHF network field, press BACK key and then press ENTER key to turn on. Figure 4-268, VHF LINK CONTROL page appears. Depress ENTER until cursor is off the page and OPERATING MODES page is displayed.

To turn SAT NETWORK off, position cursor over ON option of SAT network field, press BACK key and then press ENTER key to turn off. See [Figure 4-267](#).

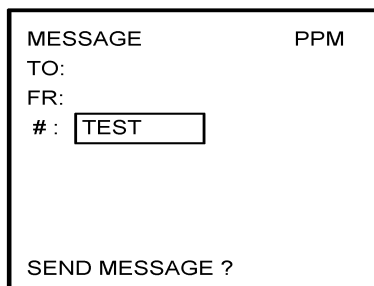


VHF LINK CONTROL

| | |
|-------------|-----------------------------------|
| ARINC | <input type="text" value="AUTO"/> |
| SITA/AVICOM | AUTO |
| AIR CANADA | AUTO |

Figure 4-268

- (d) Press BACK key to return to AFIS MENU page.
- (e) Position cursor over option, SEND AFIS MSG, and press ENTER. MESSAGE page is displayed. See [Figure 4-269](#).



MESSAGE PPM

TO:

FR:

:

SEND MESSAGE ?

Figure 4-269

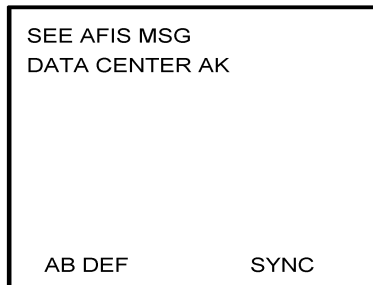
- (f) Position cursor over the # field and insert the word TEST.
- (g) Press ENTER until cursor is over SEND MESSAGE? field.
- (h) Press ENTER to send the TEST message.
- (i) When MSG annunciator blinks, press MSG key. SEE AFIS MSG appears on the System Message Page. See [Figure 4-270](#) or [Figure 4-271](#).

NOTE:

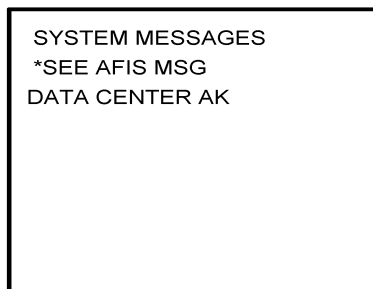
Global
AIRBORNE FLIGHT INFORMATION SYSTEM

If ARINC/ACARS or SITA Aircomm, or ground station is not within receiving range, the message NO COMM is displayed on the message page

For Aircraft equipped with the Antenna Switching Unit, if DATA LINK DISABLED message appears, enable the AFIS air to ground data link.



GNS-500A
SYSTEM MESSAGE PAGE
Figure 4-270



GNS-1000 OR GNS-X
SYSTEM MESSAGE PAGE
Figure 4-271

- (j) Press DATA key on the GNS-500A or PLAN key or AFIS key on the GNS-1000 or GNS-X until AFIS MENU page appears.

- (k) Position cursor over option, DISPL AFIS MSG (see [Figure 4-272 through 4-274](#)) and press ENTER. AFIS MESSAGE page is displayed with message from Global Data Center. See [Figure 4-275](#).

Global
AIRBORNE FLIGHT INFORMATION SYSTEM

```
AFIS MENU
1 AFIS FLT PLAN
2 SIGMETS
3 TERM WX-WINDS
4 RECALL AFIS FPL
5 SEND AFIS MSG
6 DISPL AFIS MSG
7 OPERATING MODES
```

Figure 4-272

```
AFIS MENU
1 AFIS FLT PLAN
2 SIGMETS
3 TERMINAL WX
4 WINDS ALOFT
5 RECALL AFIS FPL
6 SEND AFIS MESSAGE
7 DISPL AFIS MSG
8 OPERATING MODES
```

Figure 4-273

```
AFIS MENU
1. WX GRAPHICS
2. TERMINAL WX
3. SIGMETS
4. WINDS ALOFT
5. AFIS FLT PLAN
6. RECALL AFIS FPL
7. SEND AFIS MESSAGE
8. DISPL AFIS MSG
9. OPERATING MODES
```

Figure 4-274

```
AFIS MESSAGE

20-JAN-92 21:08Z
TEST MESSAGE
RECEIVED AT GLOBAL
DATA CENTER.
```

Figure 4-275

2. Using Satellite Network to Send Test Message

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- (a) Press the DATA key on the GNS-500A or the PLAN key or AFIS key on the GNS-1000 or GNS-X, XL, XES or XLS until the AFIS MENU page appears. See Figures 4-276 through 4-278.

```
AFIS MENU
1 AFIS FLT PLAN
2 SIGMETS
3 TERM WX-WINDS
4 RECALL AFIS FPL
5 SEND AFIS MSG
6 DISPL AFIS MSG
7 OPERATING MODES
```

Figure 4-276

```
AFIS MENU
1 AFIS FLT PLAN
2 SIGMETS
3 TERMINAL WX
4 WINDS ALOFT
5 RECALL AFIS FPL
6 SEND AFIS MESSAGE
7 DISPL AFIS MSG
8 OPERATING MODES
```

Figure 4-277

```
AFIS MENU
1. WX GRAPHICS
2. TERMINAL WX
3. SIGMETS
4. WINDS ALOFT
5. AFIS FLT PLAN
6. RECALL AFIS FPL
7. SEND AFIS MESSAGE
8. DISPL AFIS MSG
9. OPERATING MODES
```

Figure 4-278

- (b) Position cursor over option, OPERATING MODES, and press ENTER. OPERATING MODES page is displayed. See [Figure 4-279](#).

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| | |
|---------------------|-----|
| OPERATING MODES | |
| AUTO REPORT | ON |
| AUTO WX UPDT | ON |
| VHF NETWORK | OFF |
| SAT NETWORK | ON |
| ACTIVE LINK: SATCOM | |

Figure 4-279

NOTE:

This page will not appear if the system is configured for ARINC 741 or SATPHONE systems.

| | |
|--------------------|-----------------------------------|
| SAT LINK CONTROL | |
| SAT COMM: | <input type="text" value="AUTO"/> |
| REGION: W ATLANTIC | |
| LINK: OPERATIONAL | |

Figure 4-280

- (d) Press BACK key to return to AFIS MENU page.
- (e) Position cursor over option, SEND AFIS MSG, and press ENTER. MESSAGE page is displayed. See Figure 4-281.

| | |
|----------------|-----------------------------------|
| MESSAGE | PPM |
| TO: | |
| FR: | |
| #: | <input type="text" value="TEST"/> |
| SEND MESSAGE ? | |

Figure 4-281

- (f) Position cursor over the # field and insert the word TEST.
- (g) Press ENTER until cursor is over SEND MESSAGE? field.
- (h) Press ENTER to send the TEST message.

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- (i) When MSG annunciator blinks, press MSG key. SEE AFIS MSG appears on the System Message Page. See Figure 4-282 or Figure 4-283.

NOTE:

If unable to communicate through satellite network, the message NO COMM is displayed on the message page.

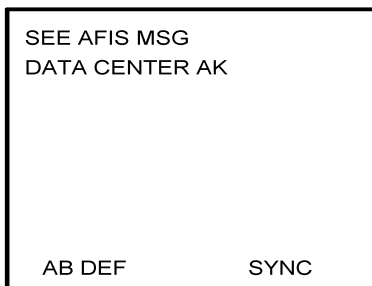


Figure 4-282

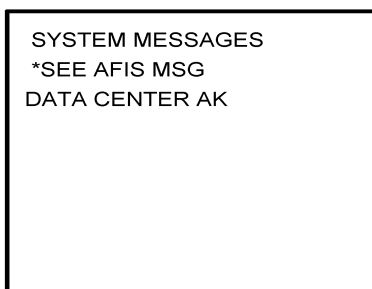


Figure 4-283

- (j) Press DATA key on the GNS-500A or PLAN key or AFIS key on the GNS-1000 or GNS-X until AFIS MENU page appears.
- (k) Position cursor over option, DISPL AFIS MSG (see Figures 4-284 through 4-286) and press ENTER. AFIS MESSAGE page is displayed with message from Global Data Center. See Figure 4-287.

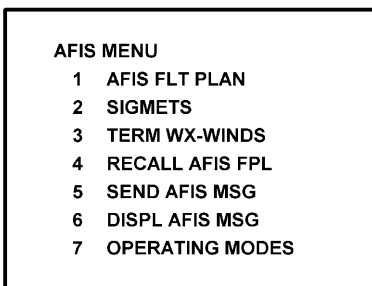


Figure 4-284

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AIRBORNE FLIGHT INFORMATION SYSTEM

```
AFIS MENU
1 AFIS FLT PLAN
2 SIGMETS
3 TERMINAL WX
4 WINDS ALOFT
5 RECALL AFIS FPL
6 SEND AFIS MESSAGE
7 DISPL AFIS MSG
8 OPERATING MODES
```

Figure 4-285

```
AFIS MENU
1. WX GRAPHICS
2. TERMINAL WX
3. SIGMETS
4. WINDS ALOFT
5. AFIS FLT PLAN
6. RECALL AFIS FPL
7. SEND AFIS MESSAGE
8. DISPL AFIS MSG
9. OPERATING MODES
```

Figure 4-286

```
AFIS MESSAGE

20-JAN-92 21:08Z
TEST MESSAGE
RECEIVED AT GLOBAL
DATA CENTER.
```

Figure 4-287

K. Fuel Flow Test

NOTE:

Fuel flow is a customer specified AFIS option for GNS-500A users with DMU P/N 42000-02-02, P/N 42000-04-03, P/N 400-045500-0002, P/N 400-045500-0004 or P/N 400-045500-0006. Since automatic fuel flow from the DMU to the GNS-500A is an advisory feature, it is recommended that the system fuel flow be checked against the aircraft's primary fuel flow gauges. The data should not replace the aircraft's primary fuel flow and quantity gauges.

1. Start aircraft engines.

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2. Press NAV key on GNS-500A until the Flight Plan Progress Page appears. See Figure 4-288.

| DIR TO ICT | | FL --- |
|------------|---------|---------|
| | P | A |
| F REM | ----- | 9475 |
| FF P / E | --- | 1800 |
| ETA | --- | 03:17 |
| TAS | --- | 485 |
| GS | --- | 491 |
| WIND | ---/--- | 310/ 38 |

Figure 4-288

3. Compare actual field (A) for Fuel Flow Per Engine with value displays on panel indicators. The Fuel Flow Per Engine is an average value and will display a reasonable comparison to aircraft fuel flow indicators.
 4. If Actual field is blank or value is unreasonable, check configuration module for proper programming.
 5. Correct if necessary and repeat test.
 - (a) If configuration module is OK, check aircraft wiring between fuel indicator and DMU.
 - (b) If tracking is not consistent, check aircraft wiring per [Section 3](#).
- L. Graphical Weather Test

The Graphical Weather test has been deleted. The AFIS DMU does not control the software for these pages. If for some reason these pages changed, this manual would also be revised.

These pages can be found in the Pilots Guide for the GNS-XLS, Enhanced.

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ENVIRONMENTAL QUALIFICATION
APPENDIX

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AIRBORNE FLIGHT INFORMATION SYSTEM

RTCA/DO-160C
ENVIRONMENTAL QUALIFICATION FORM

NOMENCLATURE: DATA MANAGEMENT UNIT

PART NUMBER: 400-045500-,0001,0002,0003,0004,0005,0006,0130,
0210, 0211, 2010, 2011

INSTALLATION KIT PART NUMBER: 149-017305-6850

TSO NUMBER: C109, C37c, C38c

MANUFACTURE'S SPECIFICATION: FACTORY TEST PROCEDURE 650-014526

MANUFACTURER: HONEYWELL INTERNATIONAL INC.

ADDRESS: ONE TECHNOLOGY CENTER
23500 W. 105TH STREET
OLATHE, KS 66061
USA

| CONDITIONS | PARA | CONDUCTED TESTS |
|---|------|------------------------------|
| TEMPERATURE AND ALTITUDE | 4.0 | CATEGORY E1 |
| TEMPERATURE VARIATION | 5.0 | CATEGORY B |
| HUMIDITY | 6.0 | CATEGORY A |
| SHOCK | 7.0 | OPERATIONAL AND CRASH SAFTEY |
| VIBRATION | 8.0 | CATEGORY MNB |
| EXPLOSION | 9.0 | CATEGORY E1 |
| WATERPROOFNESS | 10.0 | CATEGORY X (NOT TESTED) |
| FLUIDS SUSCEPTIBILITY | 11.0 | CATEGORY X (NOT TESTED) |
| SAND AND DUST | 12.0 | CATEGORY X (NOT TESTED) |
| FUNGUS | 13.0 | CATEGORY X (NOT TESTED) |
| SALT SPRAY | 14.0 | CATEGORY X (NOT TESTED) |
| MAGNETIC EFFECT | 15.0 | CATEGORY A |
| POWER INPUT | 16.0 | CATEGORY A |
| VOLTAGE SPIKE CONDUCTED | 17.0 | CATEGORY A |
| AUDIO FREQUENCY CONDUCTED | 18.0 | CATEGORY A |
| SUSCEPTIBILTY - POWER INPUTS | | |
| INDUCED SIGNAL SUSCEPTIBILITY | 19.0 | CATEGORY A |
| RADIO FREQUENCY SUSCEPTIBILITY | 20.0 | CATEGORY U |
| RADIO FREQUENECY EMISSION | 21.0 | CATEGORY A |
| LIGHTNING INDUCED TRANSIENT SUSCEPTIBILITY | 22.0 | CATEGORY K |
| LIGHTNING DIRECT EFFECTS | 23.0 | NOT TESTED |
| ICING | 24.0 | NOT TESTED |

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Global
AIRBORNE FLIGHT INFORMATION SYSTEM

RTCA/DO-160C
ENVIRONMENTAL QUALIFICATION FORM

REVISION HISTORY

| REVISION NUMBER | ECO NUMBER | DATE |
|-----------------|------------|----------|
| - | PRN 127203 | 10-23-97 |
| A | CO 138656 | 03-25-98 |
| B | CO 147284 | 10-08-98 |
| C | CO 162898 | 09-23-99 |
| D | CO 166337 | 02-15-00 |
| E | CO 182922 | 02-27-01 |

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AIRBORNE FLIGHT INFORMATION SYSTEM

RTCA/DO-160C
ENVIRONMENTAL QUALIFICATION FORM

REMARKS

The internal VHF receiver, MCX-1000, does not meet the audio frequency response criteria outlined in the TSO C38c.

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March/2001

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AIRBORNE FLIGHT INFORMATION SYSTEM

RTCA/DO-160C
ENVIRONMENTAL QUALIFICATION FORM

NOMENCLATURE: DATA MANAGEMENT UNIT
 PART NUMBER: 42000-03-03, 42000-04-03
 TSO NUMBER C109, C37C, C38C
 MANUFACTURE'S SPECIFICATION: FACTORY TEST PROCEDURE 42020
 MANUFACTURER: ALLIEDSIGNAL AVIONICS INC.
 ADDRESS: 400 NORTH ROGERS ROAD
 OLATHE, KS 66062
 USA

| CONDITIONS | PARA | CONDUCTED TESTS |
|---|------|------------------------------|
| TEMPERATURE AND ALTITUDE | 4.0 | CATEGORY E1 |
| TEMPERATURE VARIATION | 5.0 | CATEGORY B |
| HUMIDITY | 6.0 | CATEGORY A |
| SHOCK | 7.0 | OPERATIONAL AND CRASH SAFTEY |
| VIBRATION | 8.0 | CATEGORY MNB |
| EXPLOSION | 9.0 | CATEGORY E1 |
| WATERPROOFNESS | 10.0 | CATEGORY X (NOT TESTED) |
| FLUIDS SUSCEPTIBILITY | 11.0 | CATEGORY X (NOT TESTED) |
| SAND AND DUST | 12.0 | CATEGORY X (NOT TESTED) |
| FUNGUS | 13.0 | CATEGORY X (NOT TESTED) |
| SALT SPRAY | 14.0 | CATEGORY X (NOT TESTED) |
| MAGNETIC EFFECT | 15.0 | CATEGORY A |
| POWER INPUT | 16.0 | CATEGORY A |
| VOLTAGE SPIKE CONDUCTED | 17.0 | CATEGORY A |
| AUDIO FREQUENCY CONDUCTED SUSCEPTIBILTY - POWER INPUTS | 18.0 | CATEGORY A |
| INDUCED SIGNAL SUSCEPTIBILITY | 19.0 | CATEGORY A |
| RADIO FREQUENCY SUSCEPTIBILITY | 20.0 | CATEGORY U |
| RADIO FREQUENECY EMISSION | 21.0 | CATEGORY A |
| LIGHTNING INDUCED TRANSIENT SUSCEPTIBILITY | 22.0 | CATEGORY K |
| LIGHTNING DIRECT EFFECTS | 23.0 | NOT TESTED |
| ICING | 24.0 | NOT TESTED |

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AIRBORNE FLIGHT INFORMATION SYSTEM

RTCA/DO-160C
ENVIRONMENTAL QUALIFICATION FORM

REVISION HISTORY

| REVISION | ECO NUMBER | DATE |
|----------|------------|----------|
| - | PRN 127203 | 10-23-97 |
| A | CO 138656 | 03-25-98 |

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AIRBORNE FLIGHT INFORMATION SYSTEM

RTCA/DO-160C
ENVIRONMENTAL QUALIFICATION FORM

REMARKS

The internal VHF receiver, MCX-1000, does not meet the audio frequency response criteria outlined in the TSO C38C.

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AIRBORNE FLIGHT INFORMATION SYSTEM

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RTCA/DO-160C
ENVIRONMENTAL QUALIFICATION FORM

NOMENCLATURE: DATA TRANSFER UNIT
 PART NUMBER: 15655-0101, 15655-0201
 TSO NUMBER C109, C115a
 MANUFACTURE'S SPECIFICATION: ENGINEERING DRAWING 400-015655
 MANUFACTURER: ALLIEDSIGNAL AVIONICS INC.
 ADDRESS: 400 NORTH ROGERS ROAD
 OLATHE, KS 66062
 USA

| CONDITIONS | PARA | CONDUCTED TESTS |
|--|------|------------------------------|
| TEMPERATURE AND ALTITUDE | 4.0 | CATEGORY E1 |
| TEMPERATURE VARIATION | 5.0 | CATEGORY B |
| HUMIDITY | 6.0 | CATEGORY A |
| SHOCK | 7.0 | OPERATIONAL AND CRASH SAFTEY |
| VIBRATION | 8.0 | CATEGORY MN |
| EXPLOSION | 9.0 | CATEGORY E1 |
| WATERPROOFNESS | 10.0 | CATEGORY X (NOT TESTED) |
| FLUIDS SUSCEPTIBILITY | 11.0 | CATEGORY X (NOT TESTED) |
| SAND AND DUST | 12.0 | CATEGORY X (NOT TESTED) |
| FUNGUS | 13.0 | CATEGORY X (NOT TESTED) |
| SALT SPRAY | 14.0 | CATEGORY X (NOT TESTED) |
| MAGNETIC EFFECT | 15.0 | CATEGORY Z |
| POWER INPUT | 16.0 | CATEGORY A |
| VOLTAGE SPIKE CONDUCTED | 17.0 | CATEGORY A |
| AUDIO FREQUENCY CONDUCTED SUSCEPTIBLTY – POWER INPUTS | 18.0 | CATEGORY A |
| INDUCED SIGNAL SUSCEPTIBILITY | 19.0 | CATEGORY A |
| RADIO FREQUENCY SUSCEPTIBILITY | 20.0 | CATEGORY V |
| RADIO FREQUENECY EMISSION | 21.0 | CATEGORY A |
| LIGHTNING INDUCED TRANSIENT SUSCEPTIBILITY | 22.0 | CATEGORY K |
| LIGHTNING DIRECT EFFECTS | 23.0 | CATEGORY X (NOT TESTED) |
| ICING | 24.0 | CATEGORY X (NOT TESTED) |

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RTCA/DO-160C
ENVIRONMENTAL QUALIFICATION FORM

REVISION HISTORY

| REVISION | ECO NUMBER | DATE |
|----------|------------|----------|
| - | PRN 127203 | 10-23-97 |
| A | CO 138656 | 03-25-98 |

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RTCA/DO-160C
ENVIRONMENTAL QUALIFICATION FORM

NOMENCLATURE: CONFIGURATION MODULE UNIT
 PART NUMBER: 31990-1
 TSO NUMBER C109, C115a
 MANUFACTURE'S SPECIFICATION: FACTORY TEST PROCEDURE
 MANUFACTURER: ALLIEDSIGNAL AVIONICS INC.
 ADDRESS: 400 NORTH ROGERS ROAD
 OLATHE, KS 66062
 USA

| CONDITIONS | PARA | CONDUCTED TESTS |
|---|------|------------------------------|
| TEMPERATURE AND ALTITUDE | 4.0 | CATEGORY E1 |
| TEMPERATURE VARIATION | 5.0 | CATEGORY B |
| HUMIDITY | 6.0 | CATEGORY A |
| SHOCK | 7.0 | OPERATIONAL AND CRASH SAFTEY |
| VIBRATION | 8.0 | CATEGORY MNB |
| EXPLOSION | 9.0 | CATEGORY E1 |
| WATERPROOFNESS | 10.0 | CATEGORY X (NOT TESTED) |
| FLUIDS SUSCEPTIBILITY | 11.0 | CATEGORY X (NOT TESTED) |
| SAND AND DUST | 12.0 | CATEGORY X (NOT TESTED) |
| FUNGUS | 13.0 | CATEGORY X (NOT TESTED) |
| SALT SPRAY | 14.0 | CATEGORY X (NOT TESTED) |
| MAGNETIC EFFECT | 15.0 | CATEGORY A |
| POWER INPUT | 16.0 | CATEGORY A |
| VOLTAGE SPIKE CONDUCTED | 17.0 | CATEGORY A |
| AUDIO FREQUENCY CONDUCTED SUSCEPTIBLY - POWER INPUTS | 18.0 | CATEGORY A |
| INDUCED SIGNAL SUSCEPTIBILITY | 19.0 | CATEGORY A |
| RADIO FREQUENCY SUSCEPTIBILITY | 20.0 | CATEGORY V |
| RADIO FREQUENECY EMISSION | 21.0 | CATEGORY A |
| LIGHTNING INDUCED TRANSIENT SUSCEPTIBILITY | 22.0 | CATEGORY K |
| LIGHTNING DIRECT EFFECTS | 23.0 | CATEGORY X (NOT TESTED) |
| ICING | 24.0 | CATEGORY X (NOT TESTED) |

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| - | PRN 127203 | 10-23-97 |
| A | CO 138656 | 03-25-98 |

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TSO'D UNITS
WITHOUT INDIVIDUAL ENVIRONMENTAL QUALIFICATION FORMS

| Part Number | Unit Description | TSO Categories | DO-160B Environmental Categories |
|-------------|------------------|-------------------|----------------------------------|
| 44000-1 | ASU | C109 | E1E1 A MNO E1 XXXXX AAAAA |
| 42000-01-01 | AFIS DMU | C37c, C38c, C109c | E1E1 A MNO E1 XXXXX AAAAA |
| 42000-02-02 | AFIS DMU | C37c, C38c, C109c | E1E1 A MNO E1 XXXXX AAAAA |

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