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| REV A | APPLICATION | | | REVISIONS | | |
| | PRODUCT LINE | REV | DESCRIPTION | DATE | APPROVED | APPROVED |
| SH 1 | IDU-III | A | Initial Release per DCN W4615 | 07/25/05 | V. Wallace | RD DC |
| DWG. NO. 150-045036 | | | | | | |
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| APPROVALS | | DATE | | TITLE: SERVICE BULLETIN WSB IDU-III-17 (IDU LIMITS DIGITAL GAIN MODIFICATION) | |
| DRAWN | Robert DuRall | 07/22/05 | | | |
| CHECKED | Dean Boston | 07/22/05 | | | |
| PRODUCT MANAGER | | | | | |
| ENGINEER | Robert DuRall | 07/22/05 | | SIZE | CAGE CODE |
| ISSUED | Vern Wallace | 07/25/05 | | A | 1B7G3 |
| | | | | DWG NO. | REV |
| | | | | 150-045036 | A |
| Typed signatures indicate approval. Handwritten signature approval of this document is on file at Wulfsberg Electronics, Prescott, Arizona. | | | | SCALE: NONE | DO NOT SCALE DRAWING |



Wulfsberg Electronics
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SERVICE BULLETIN

EQUIPMENT: IDU-III

DATE: 07/25/05

BULLETIN NUMBER: WSB IDU-III-17 Revision A

EFFECTIVITY

This service bulletin applies to the following:

| LRU P/N | HDWR Mod | SWID |
|----------------|----------|------|
| 401-045500-[] | 0101 | 5.0B |

REASON

Problem Resolutions:

Upgrading the EFIS Software to Version 5.0B on an EFIS system with the Autopilot Digital Gain option in the IDU limits set to a value other than default ("1") will cause the Analog Interface Unit to gradually output maximum Heading Datum to an autopilot when the Heading Bug or a flight plan deviates more than 1 degree from the aircraft heading. This anomaly is described in detail in Service Information Letter 16.

DESCRIPTION

This document allows the modification of the Autopilot Digital Gain option in the IDU limits file "limits.txt" to be set to default.

COMPLIANCE

Required for those installations that exhibit a gradual autopilot roll after updating the EFIS Software to Version 5.0B.

WARRANTY INFORMATION

Units still in the warranty period may request this modification under the terms of the warranty agreement. Inquiries should be directed to "Technical Support" at the address listed below:

Chelton Flight Systems
1109 Main Street
Suite 560
Boise, Idaho 83702
Phone (208) 389-9959
Fax (208)389-9961

APPROVAL

This modification does not affect the original approval.

MANPOWER

0.25 Man-hours per aircraft.

REFERENCES

System Installation Instructions, 150-045264.

MATERIAL INFORMATION

The parts required to modify an IDU-III installation in accordance with this Service Bulletin may be obtained as follows.

Item 1 may be obtained directly from Chelton Flight Systems Technical Support.

Item 2 may be purchased from any office supply or other store selling computer and digital camera accessories, or may be reused from a previous Service Bulletin Kit provided the contents of the card are deleted prior to starting the Modification Procedures stated below.

PARTS REQUIRED

| <u>ITEM</u> | <u>QTY</u> | <u>U/M</u> | <u>PART NUMBER</u> | <u>DESCRIPTION</u> |
|--------------------|-------------------|-------------------|---------------------------|--|
| 1 | 1 | ea | 320-645695-SB17 | Software Data, IDU Limits, Autopilot Gain Correction, SB IDU-III-17, EFIS-II |
| 2 | 1 | ea | N/A | SmartMedia Card (8-64Mb) |

PRE-MODIFICATION INSPECTION

1. Apply external power to the aircraft as required.
2. Insert a SmartMedia card into the PFD or single MFD display unit.

3. Apply power to the EFIS system.
4. Verify the PFD or single MFD unit displays the Ground Maintenance menu (See Figure 1).

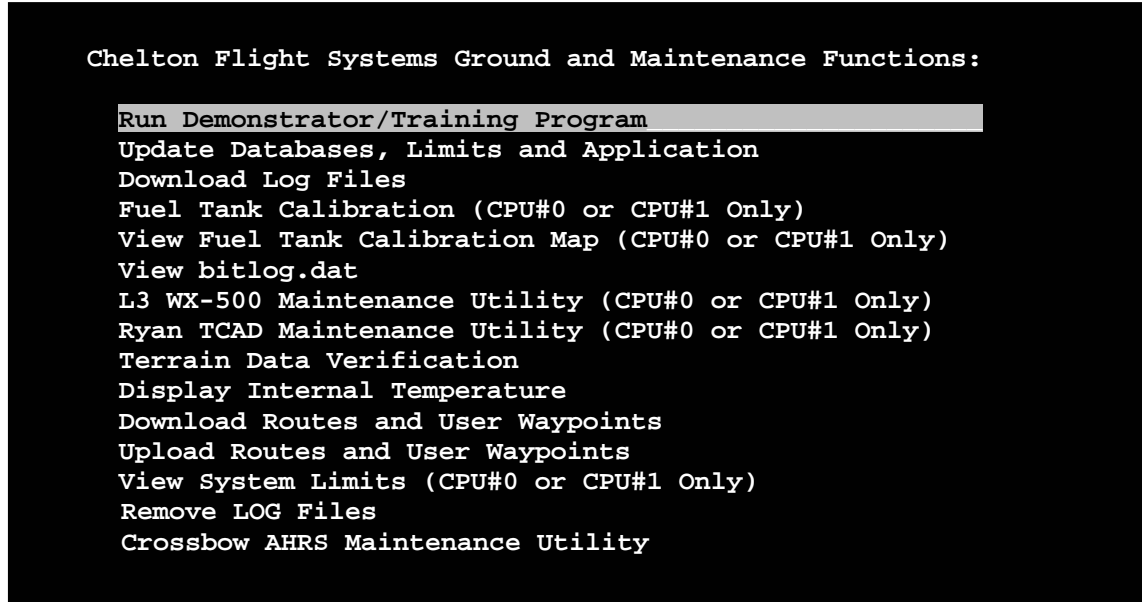


Figure 1 EFIS Ground Maintenance Menu

5. Rotate the right-hand encoder until the “View System Limits (CPU#0 or CPU#1 Only)” is highlighted then press in the right-hand encoder (See Figure 2).

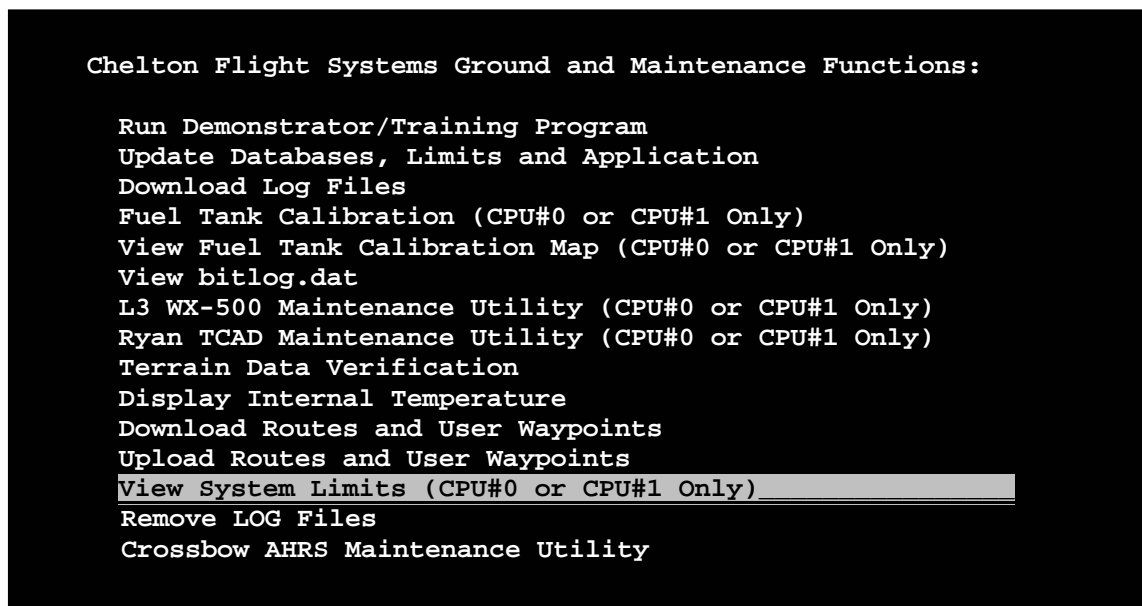


Figure 2 View System Limits

6. Press any button or rotate the right-hand encoder three (3) times until the “System User Programmed Settings (Page 1)” is displayed.
7. View the *Autopilot Digital Gain* option (As shown in red in Figure 3).

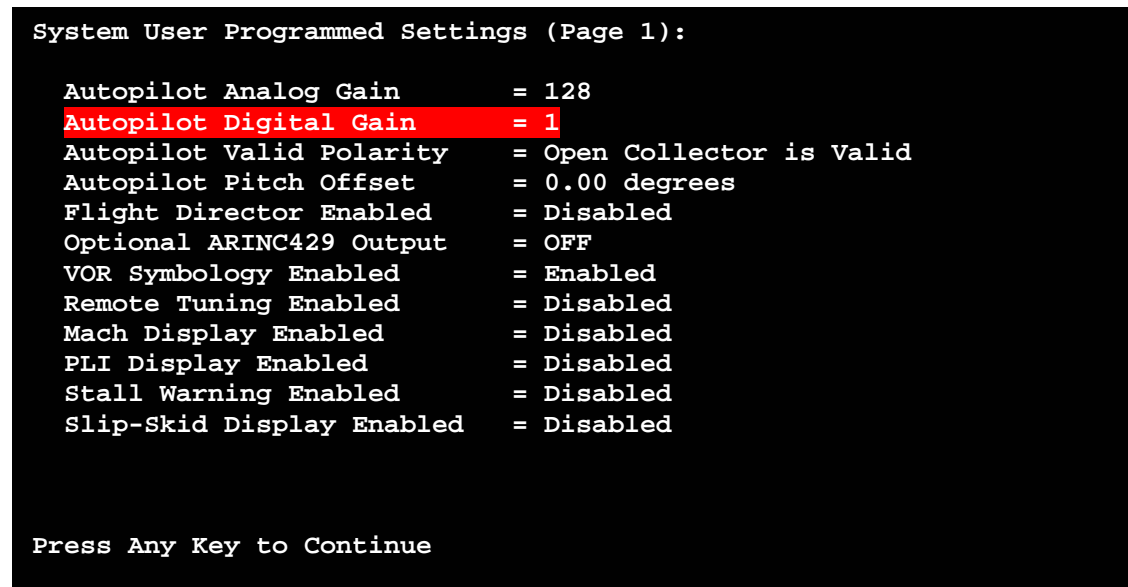


Figure 3 System User Programmed Settings (Page 1)

8. If the *Autopilot Digital Gain* option displays a value other than “1”, proceed with the Modification Procedure in this Service Bulletin.

NOTE: *If the Autopilot Digital Gain option displays a value of “1”, this Service Bulletin is not applicable.*

9. Press any button or rotate the right-hand encoder three (3) times until the Ground Maintenance menu is displayed.
10. Remove power from the EFIS.
11. Remove the SmartMedia card from the PFD or single MFD unit.

MODIFICATION PROCEDURE

1. Obtain the IDU limits modification file (Item 1) from Chelton Flight Systems.
2. Copy the “limits.txt” file on a blank SmartMedia card (Item 2).
3. Insert the SmartMedia card (Item 2) into the PFD or single MFD unit.
4. Apply power to the EFIS system.
5. Verify the PFD or single MFD unit displays the Ground Maintenance menu (See Figure 1).

6. Rotate the right-hand encoder until the “Update Databases, Limits and Application” is highlighted then press in the right-hand encoder (See Figure 4).

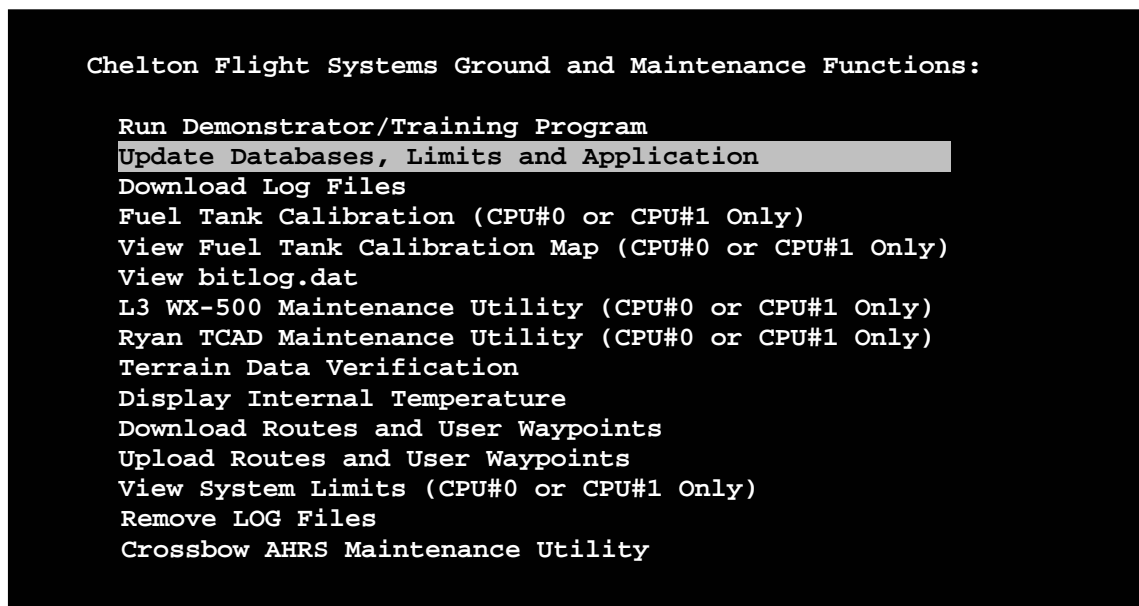


Figure 4 Update Databases, Limits and Applications

7. Verify the System Configuration Card programming is completed (See Figure 5).

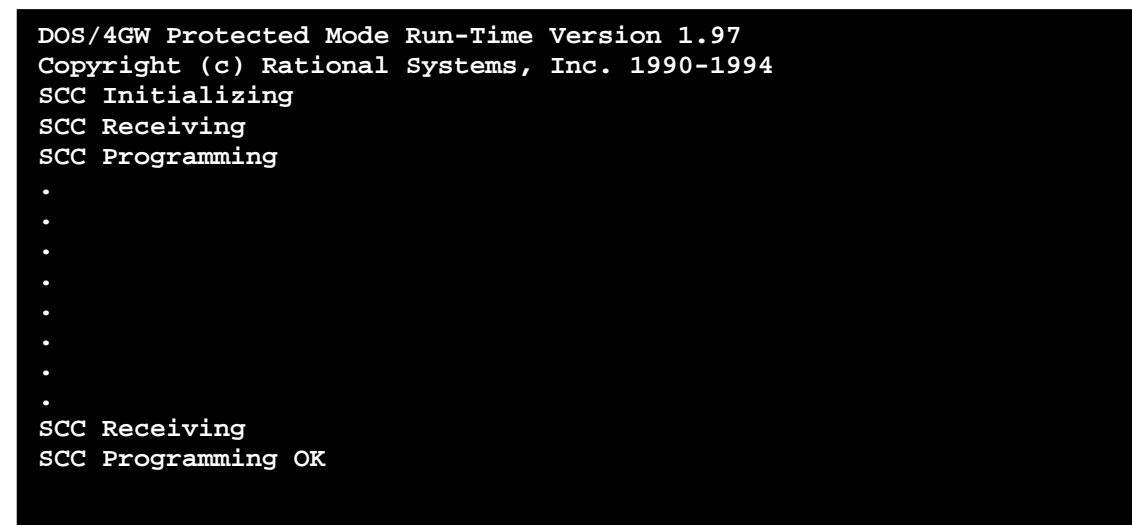


Figure 5 Typical SCC Programming

NOTE: Upon completion of the SCC Programming, the IDU will perform a “Scandisk” of both internal drives then return to the Ground Maintenance menu.

8. Remove power from the EFIS system.
9. Remove the SmartMedia card (Item 2) from the PFD or single MFD unit.

TESTING PROCEDURE

1. Insert a SmartMedia card into the PFD or single MFD unit.
2. Apply power to the EFIS system.
3. Verify the PFD or single MFD unit displays the Ground Maintenance Menu (See Figure 1).
4. Rotate the right-hand encoder until the "View System Limits (CPU#0 or CPU#1 Only) is highlighted then press in the right-hand encoder (See Figure 2).
5. Press any button or rotate the right-hand encoder three (3) times until the "System User Programmed Settings (Page 1)" is displayed.
6. Verify the *Autopilot Digital Gain* option is set to "1" (See Figure 3).
7. Press any button or rotate the right-hand encoder three (3) times until the Ground Maintenance menu is displayed.
8. Remove power from the EFIS.
9. Remove the SmartMedia card from the PFD or single MFD.
10. Remove external power from the aircraft if installed.