


REV	B	APPLICATION			REVISIONS		
		PRODUCT LINE	REV	DESCRIPTION	DATE	APPROVED	APPROVED
SH	1	IDU-III	A	Initial Release per DCN W3043	10/10/03	V. Wallace	R. DuRall
			B	Update per DCN W3180	11/18/03	V. Wallace	R.D. D.C.
DWG. NO. 150-045964							

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APPROVALS					
DRAWN	R. DuRall	10/10/03		TITLE: SERVICE BULLETIN WSB IDU-III-6 (SOFTWARE APPLICATION VERSION 4.1A)	
CHECKED	R. DuRall	10/10/03			
PRODUCT MANAGER	R. DuRall	10/10/03			
ENGINEER		SIZE	CAGE CODE	DWG NO.	REV
ISSUED	V. Wallace	A	1B7G3	150-045964	B
Typed signatures indicate approval. Handwritten signature approval of this document is on file at Wulfsberg Electronics, Prescott, Arizona.		SCALE: NONE		DO NOT SCALE DRAWING	



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SERVICE BULLETIN

EQUIPMENT: IDU-III

DATE: November 18, 2003

BULLETIN NUMBER: WSB IDU-III-6 Revision B

EFFECTIVITY

This service bulletin applies to the following:

LRU P/N	HDWR Mod	SWID
401-045500-[]	0101	4.0J or Lower

REASON

Problem Resolutions:

1. Added fuel totalizer disable setting to aircraft limits for those installations lacking an approved fuel flow sensor.
2. Added miles per hour setting to aircraft limits to enable display of aircraft speed in miles per hour where appropriate.
3. Revised background terrain array generation to eliminate temporary screen freezes and watchdog resets.
4. Added OAT only failure mode.
5. Eliminated HFOM > 0.3 as a criteria for disabling terrain and TAWS functions. Terrain and TAWS functions are now only inhibited when there is a GPS LON or LOI.

Customer Requested Feature Additions/Changes:

1. Added support for L3 Skywatch TAS systems.
2. Added output of "Type 1" and "Type 2" GPS navigator data for tie in to external systems and displays (supports Shadin ETM product).
3. Added RMI symbology on Map and HSI screens (requires interface to appropriate sensors).
4. Added HSI symbology to PFD screen.
5. Added glideslope indication to HSI screen and PFD screen (requires interface to appropriate sensors).
6. Modified voice warning system performance to vary volume based upon severity of alert.
7. Modified voice warning system performance so that voice muting is immediate upon press of mute button.
8. Added automatic fuel totalizer setting menu popup on CPU#0 and CPU#2 upon system ground start as a reminder to set fuel quantity.

9. Limit TAWS and traffic popup modes to CPU#0 and CPU#2 only.
10. Change start of flight timer from system power-up to start of Air mode.
11. Changed Direct-To operation in ground mode to create a new flight plan from the startup airport to the Direct-To waypoint instead of from a "Start" waypoint to the Direct-To waypoint.
12. Modified fuel totalizer setting menu to show current fuel flow and fuel flow units.
13. Added full-time bank scale option.
14. Added obstruction warning function.

Other Changes:

1. Added support for Analog Interface Unit, including autopilot support (requires interface to appropriate sensors).
2. Added RS-232 speed output for AHRS speed aiding.
3. Added autopilot analog and digital gain settings to aircraft limits for fine tuning coupled autopilot performance.
4. Eliminated arc format from dedicated Traffic screen.
5. Revised normal waterline symbol.
6. Optimized OBS setting menu.
7. Changed to permanent display of speed worm and VSI worm.
8. Added unusual attitude recovery chevrons.
9. Inhibited altitude alerter function below 1500'AGL.
10. Auto-enabled PFD HSI symbology when NAV1 or NAV2 is selected as HSI source (requires interface to appropriate sensors).

DESCRIPTION

This modification updates the application software to 4.1A.

COMPLIANCE

Required for interface with AIU.

WARRANTY INFORMATION

This modification is an enhancement and is not covered under warranty.

APPROVAL

This modification does not affect the original approval.

MANPOWER

Not Applicable.

REFERENCES

System Installation Instructions, 150-045264.

MATERIAL INFORMATION

The parts required to modify this unit in accordance with this Service Bulletin are available from Chelton Flight Systems at (208) 389-9959.

PARTS REQUIRED

ITEM	QTY	U/M	PART NUMBER	DESCRIPTION	REF
1	1	ea	320-145239-041A	Software Load Module, Update Image 4.1A	
2	1	ea	320-145965-0100	Software Load Module, Limits Image 4.1A	
3	1	ea	320-145966-0152	IDU Limits Program v1.5.2	
4	2	ea		SmartMedia Card 8Mb-64Mb	
5	1	ea		Navigation Database (latest version)	
6	1	ea		Obstruction Database (latest version)	

NOTE: Navigation and Obstruction databases can be downloaded from the Chelton Flight Systems web site at www.cheltonflightsystems.com/download.

MODIFICATION PROCEDURE

CAUTION

ANY DISASSEMBLY/ASSEMBLY OF THIS UNIT MUST BE DONE AT A STATIC SAFE WORKSTATION. REMOVED MODULES SHOULD BE PLACED IN ANTISTATIC BAGS WHEN NOT INSTALLED IN THE UNIT.

CAUTION

PROGRAMMING OF ROUTES MAY BE REQUIRED AFTER MODIFICATION.

NOTE: The IDU must contain EFIS software version 4.0H or 4.0J before starting this process.

IDU MODIFICATION

SOFTWARE UPDATE (PFD AND MFD)

1. Insert a SmartMedia card (Item 4) in the PFD with the Software Load Module, Update Image 4.1A (P/N 320-145239-041A) (Item 1), and the latest Navigation database (Item 5) and Obstruction database (Item 6).
2. Apply power to the IDU and verify the Ground Maintenance menu is displayed.
3. Select item "B" to update the EFIS software.
4. Follow instructions displayed on screen.
5. Remove power from the IDU after the Ground Maintenance menu is displayed.
6. Remove Update Image card.

7. Repeat steps 1 thru 6 for each additional IDU in aircraft.

LIMITS UPDATE (PFD AND MFD)

1. Insert a second SmartMedia card (Item 4) in the PFD with the Software Load Module, Limits Image 4.1A (P/N 320-145965-0100) (Item 2).
2. Apply power to the IDU and verify the Ground Maintenance menu is displayed.
3. Select item “B” to update the IDU limits.
4. Follow instructions displayed on screen.
5. Remove power from the IDU after the Ground Maintenance menu is displayed.
6. Remove Limits Image card.
7. Repeat steps 1 thru 6 for each additional IDU in aircraft.

LIMITS MODIFICATION (PFD ONLY)

NOTE: The following steps are required if new options are to be used.

1. Load the IDU Limits program version 1.5.2 (P/N 320-145966-0152) (Item 3) on the computer.
2. Insert the SmartMedia card used in the “Limits Update (PFD and MFD)” section of this Service Bulletin into a SmartMedia card reader/writer connected to the computer.
3. Launch the IDU Limits program and open the “limits.txt” file on the SmartMedia card from the IDU Limits program window (See “Ground Maintenance” section of the EFIS Installation Manual for details).
4. Modify the limits as required for the new selections available (airspeed, fuel totalizer, autopilot gains, etc.)
5. Store the changed limits on the SmartMedia card as “limits.txt”.
6. Remove all files on the SmartMedia card except “limits.txt” using the Windows[®] operating system.
7. Extract the SmartMedia card from the reader/writer.
8. Insert the SmartMedia card in the PFD.
9. Apply power to the EFIS system and verify the PFD displays the Ground Maintenance menu.
10. Select item “B” to update the IDU limits.
11. Follow instructions displayed on screen.
12. Remove power from EFIS system after the Ground Maintenance menu is displayed.
13. Remove SmartMedia card from PFD.

