

IFIS-5000 INTEGRATED FLIGHT INFORMATION SYSTEM

Field Loadable Software Installation

FSA-5000 FSU Application Software RCPN 810-0001-002/-003/-004/-005/-006/-008/-009/
-010/-020/-100/-104/-105/-106/-108/-109/-110/-120/-220/-222/-320/-322

OVL-5000 Overlay Function RCPN 810-0003-001
ECH-5000 Electronic Charts Function RCPN 810-0002-001
GWX-3000 Graphical Weather Function RCPN 810-0007-001
GWX-3001 Graphical Weather Function RCPN 810-0058-001
GWX-3002 Graphical Weather Function RCPN 810-0142-001
GWX-5000 Graphical Weather Function RCPN 810-0004-001

Service Information Letter 1-03
REVISION NO. 14

FSU-5010 FIELD LOADABLE SOFTWARE

TRANSMITTAL INFORMATION SUMMARY

Summary

This is revision 14 of SIL 1-03 for the IFIS-5000 Integrated Flight Information System.

This revision updates G.(5), J. tables, and Figure 1, sheet 1.

Black bars in the margins indicate the changes.

Replace revision 13 with this revision.

Service Information Letter Revision History

REVISION	DATE OF RELEASE
Initial Release	May 3, 2004
Revision 1	June 21, 2004
Revision 2	July 23, 2004

Notice

INFORMATION SUBJECT TO EXPORT LAWS

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REVISION	DATE OF RELEASE
Revision 3	January 25, 2005
Revision 4	October 4, 2005
Revision 5	June 26, 2006
Revision 6	September 4, 2007
Revision 7	September 15, 2008
Revision 8	May 11, 2011
Revision 9	August 16, 2011
Revision 10	January 22, 2013
Revision 11	September 17, 2013
Revision 12	September 25, 2013
Revision 13	September 14, 2015
Revision 14	January 25, 2016

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A. General Information

The Integrated Flight Information System (IFIS-5000) is intended to enhance pilot situational awareness. The File Server Unit (FSU-5010) and File Server Application (FSA-5000) are two (2) products of the IFIS-5000. The FSA-5000 is software that is loaded on the FSU-5010 and includes three feature options: The display of electronic charts, enhanced map overlays, and graphical weather.

- Electronic Charts (ECH-5000) – This function provides the ability to show an electronic chart on the Multi-function Display.
- Enhanced Map Overlays (OVL-5000) – This function allows traditional navigation maps to be overlaid with geographic and political boundaries, restricted airspace, terrain features, and airways.
- Graphical Weather (GWX-3000/3001/3002/5000) – This function provides weather uplinked from the ground provider, on the Multi-Function Display. The GWX-5000 is applicable to the Universal weather data service. The GWX-3000/3001/3002 is applicable to the XM[®] weather data service.

B. FAA/TSO Approval

Regulatory Compliance.

TYPE NO.	TSO	DO-178B LEVEL
FSU-5010	C113 Airborne Multipurpose Electronic Displays	A, C, D
FSA-5000 810-0001-002 810-0001-003 810-0001-004 810-0001-005 810-0001-100 810-0001-104 810-0001-105	C113 Airborne Multipurpose Electronic Displays	A, C, D
FSA-5000 810-0001-006 810-0001-008 810-0001-009 810-0001-010 810-0001-106 810-0001-108 810-0001-109 810-0001-110	C113 Airborne Multipurpose Electronic Displays C165 Electronic Map Display Equipment for Graphical Depiction of Aircraft Position	A, C, D
FSA-5000 810-0001-020 810-0001-220 810-0001-222 810-0001-320 810-0001-322	C113 Airborne Multipurpose Electronic Displays C165 Electronic Map Display Equipment for Graphical Depiction of Aircraft Position	C, D

Part Marking.

The FSU-5010 and ECU-3000 identification are on the product identification plate/modification plate. The marking for the FSA-5000 is shown on the CD ROM face. For RCPN 810-0001-100 and RCPN 810-0001-003 or lower, it is recommended that the CD ROM should remain in the aircraft to meet the requirements of FAR21.607(d). The FSA-5000 part number, build date and cyclical redundancy check number for the CPR load set are also available on the avionics display. See the Field Loadable Software Installation Manual, RCPN 523-0806267, for procedure to display the FSA part number information.

C. **Software Accomplishment Summary documents**

Software Accomplishment Summary document for the IFIS-5000 Integrated Flight Information System, written in accordance with RTCA/DO-178B Level A, is available upon request from:

Information Management Librarian
M/S 153-260
Rockwell Collins
400 Collins Road NE
Cedar Rapids, Iowa 52498-0001

All orders should reference IFIS-5000 Service Information Letter 1-03.

D. **References**

Pro Line 21™ IFIS-5000 Integrated Flight Information System Installation Manual, RCPN 523-0780854

Field Loadable Software Installation Manual, RCPN 523-0806267

CPAS-3000 Data Loader Operator's Guide, RCPN 523-0790386

E. **Compliance**

Optional Product.

F. **Concurrent Requirements/Minimum System Requirements**

- (1) Approved Platforms.
- (2) The IFIS-5000 minimally requires an FSU-5010, ECU-3000, and MMT-5000. Specific functionality in the IAPS system and AFD paired with a CCP are also needed to run the software. In addition, a portable PC-based computer with CPAS-3000 dataload software is required to update the installed databases.
- (3) Refer to Section K, Compatibility, of this SIL for the specific combinations of hardware and software products that are available.
- (4) The OVL-5000 and ECH-5000 each require a database subscription. The GWX-5000 and GWX-3000/3001/3002 require both a database subscription and purchase of a data service.

Contact your Rockwell Collins Service Representative for further details.

G. Ordering Information

Refer to Section K, Compatibility, of this SIL to determine the approved software products that can be installed in the IFIS-5000 System. All currently available software products are listed. The FSA-5000 application disks are certified, and are made from original computer master data files to ensure the highest integrity as required for these applications.

NOTE: Encrypted Application Keys (EAK) are created to match the ECU-3000 serial numbers.

Ordering FSA-5000 Software and Encrypted Application Keys (EAKs)

The customer should have the following information when ordering:

- Desired FSA Software part number and quantity (refer to Figure 1)
- Desired keys: ECH-5000, OVL-5000, GWX-3000/3001/3002, or GWX-5000, and quantity of each
- ECU-3000 Serial Number(s) (if already owned)
- Company name
- Contact information
- Aircraft manufacturer, aircraft type, serial number, and tail number
- Shipping address

For additional information on ordering please contact your Rockwell Collins Regional Sales Manager, Customer Support Engineer, or Customer Account Administrator. Fax requests may be submitted to 319.295.2194.

Ordering Database Subscription and Data Services

- (1) For ECH-5000 Electronic Charts database subscription contact:

JEPPESEN
55 Inverness Drive East
Englewood, CO 80112-5498

Telephone: 800.621.5377 or 303.328.4244
Fax: 303.328.4124
www.jepesen.com

- (2) For OVL-5000 Enhanced Map Overlay database subscription contact:

Rockwell Collins
FMS and Data Base Support
400 Collins Road NE
Cedar Rapids, IA 52498

Telephone: 319.295.5000
Fax: 319.295.8757
www.rockwellcollins.com/fms

- (3) For GWX-5000 Universal Weather data services contact:
Universal Weather and Aviation
8787 Tallyho
Houston, TX 77061

N. America Toll Free: 800.231.5600
Local/Int'l: 713.944.1622
Fax: 713.943.4634
E-mail: sales@univ-wea.com
- (4) For GWX-5000 Universal Weather database subscription contact:
Rockwell Collins
FMS and Data Base Support
400 Collins Road NE
Cedar Rapids, IA 52498

Telephone: 319.295.5000
Fax: 319.295.8757
www.rockwellcollins.com/fms
- (5) For GWX-3000/3001/3002 XM Weather data services contact:
XM Satellite Radio
XM WX Listener Care

Telephone: 800.985.9200
www.XMWXweather.com or www.siriusxm.com
- (6) For GWX-3000/3001/3002 XM Weather database subscription contact:
Rockwell Collins
FMS and Data Base Support
400 Collins Road NE
Cedar Rapids, IA 52498

Telephone: 319.295.5000
Fax: 319.295.8757
www.rockwellcollins.com/fms

Ordering CPAS-3000 Software

- (1) CPAS-3000 Software is available from:

Customer Account Administration, M/S 107-153
Business and Regional Systems
Rockwell Collins
400 Collins Road NE
Cedar Rapids, Iowa, 52498

TELEPHONE: 319.295.9447

FAX NO: 319.295.2194

- (2) The CPAS software requires an “unlock code” during initial installation. To obtain this code or if you are having problems or need additional reference manuals for CPAS please contact:

Rockwell Collins
FMS and Data Base Support
400 Collins Road NE
Cedar Rapids, IA 52498

Telephone: 319.295.5000

Fax: 319.295.8757

H. Estimated Effort

- The effort required to install the FSA-5000 is estimated to be 20 minutes using the approved Rockwell Collins data load equipment and procedure.
- The effort required to enable individual applications or to load/update required databases is estimated to be 2 to 10 minutes each.

I. Data Load Equipment

See the Field Loadable Software Installation Manual, RCPN 523-0806267, for data load equipment details. Customer furnished equipment includes a laptop computer and connecting cables. Required CPAS data load software tool can be obtained from Rockwell Collins contact: See order information above.

J. Installation Procedure

FSA-5000 Installation

- (1) Refer to the FSU-5010 section of the Field Loadable Software Installation Manual, RCPN 523-0806267, for installation instructions.

NOTE: If previous red label deliveries of the FSA-5000 occurred during development, it will be necessary to remove the red Installed Software Label from the target T/L hardware (FSU-5010) following installation of the TSO approved FSA-5000 per this SIL.

- (2) Follow the load and verification procedure in the referenced manual.

FSA-5000	DELIVERABLE FOR CPR AND NODE	COL_NODE TARGET FSU NODE LOADSET		COL_FSU TARGET FSU CPR LOADSET	
		RCPN	CRC	RCPN	CRC
810-0001-002	815-6313-002	815-5596-002	8151DCFC	810-0001-002	AFF014F1
810-0001-003	815-6313-003	815-5596-002	8151DCFC	810-0001-003	2BB1AE59
810-0001-100	815-6313-101	815-5596-101	54E274B2	810-0001-100	10889FD8
810-0001-004	815-6313-004	815-5596-002	8151DCFC	810-0001-004	DED14ADF
810-0001-104	815-6313-102	815-5596-101	54E274B2	810-0001-104	8CEF1F9A
810-0001-005	815-6313-005	815-5596-003	CB8333B7	810-0001-005	73B2184B
810-0001-105	815-6313-103	815-5596-101	54E274B2	810-0001-105	765E1E2F
810-0001-006	815-6313-006	815-5596-003	CB8333B7	810-0001-006	42DAF90F
810-0001-106	815-6313-104	815-5596-102	17966CDC	810-0001-106	0E568A9B
810-0001-008	815-6313-007	815-5596-005	2D20F306	810-0001-008	5C9B91DC
810-0001-108	815-6313-105	815-5596-104	CCEAFB31	810-0001-108	C0B855B3
810-0001-009	815-6313-008	815-5596-006	EA41DDB0	810-0001-009	9AB8A460
810-0001-109	815-6313-106	815-5596-105	B5FFE384	810-0001-109	88C85366
810-0001-010	815-6313-201	815-5596-201	A656CF57	810-0001-010	BCCCF98D
810-0001-010*	815-6313-202	815-5596-201	A656CF57	810-0001-010	72EF8BD3
810-0001-110	815-6313-301	815-5596-301	B5F55394	810-0001-110	68AF5F65
810-0001-110*	815-6313-302	815-5596-301	B5F55394	810-0001-110	5F716263
810-0001-020	815-6313-020	815-5596-006	EA41DDB0	810-0001-020	D6ABAD1A
810-0001-120	815-6313-120	815-5596-105	B5FFE384	810-0001-120	40471B0E
810-0001-220	815-6313-220	815-5596-201	A656CF57	810-0001-220	B0FC1203
810-0001-220*	815-6313-221	815-5596-201	A656CF57	810-0001-220	9286DC50
810-0001-222	815-6313-222	815-5596-201	A656CF57	810-0001-222	DB0E70D8

FSA-5000	DELIVERABLE FOR CPR AND NODE	COL_NODE TARGET FSU NODE LOADSET		COL_FSU TARGET FSU CPR LOADSET	
		RCPN	CRC	RCPN	CRC
810-0001-320	815-6313-320	815-5596-301	B5F55394	810-0001-320	BFE19DD6
810-0001-320*	815-6313-321	815-5596-301	B5F55394	810-0001-320	D42143DE
810-0001-322	815-6313-322	815-5596-301	B5F55394	810-0001-322	74113ED3

*This is the preferred version for new installs to correct invalid date/time issue. (Build date 08/20/2013)

- (3) Refer to Figure 1. For verification of software loaded on the aircraft, verify that the FSA part number and CRC on the Multifunction Display match those in the compatibility chart.

FSU-5010/FSA-5000 COMPATIBILITY

FSA-5000	FSU-5010 (CPN 822-1543-XXX)							
	101	201						
810-0001-002	*							
810-0001-003	*							
810-0001-100	*							
810-0001-004	*							
810-0001-104	*							
810-0001-005	*							
810-0001-105	*							
810-0001-006	*							
810-0001-106	*							
810-0001-008	*							
810-0001-108	*							
810-0001-009	*							
810-0001-010		*						
810-0001-109	*							
810-0001-110		*						
810-0001-020	*							
810-0001-120	*							
810-0001-220		*						
810-0001-320		*						
810-0001-222		*						
810-0001-322		*						

FSA-5000/OVL-5000 COMPATIBILITY

OVL-5000	FSA-5000 (CPN 810-0001-XXX)																					
	002	003	100	004	104	005	105	006	106	008	108	009	010	109	110	020	120	220	320	222	322	
810-0003-001	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

FSA-5000/ECH-5000 COMPATIBILITY

ECH-5000	FSA-5000 (CPN 810-0001-XXX)																					
	002	003	100	004	104	005	105	006	106	008	108	009	010	109	110	020	120	220	320	222	322	
810-0002-001	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

FSA-5000/GWX-5000 COMPATIBILITY

GWX-5000	FSA-5000 (CPN 810-0001-XXX)																					
	002	003	100	004	104	005	105	006	106	008	108	009	010	109	110	020	120	220	320	222	322	
810-0004-001		*		*		*		*		*		*	*			*		*		*		

TPG3920_01

Software Versions
Figure 1 (Sheet 1 of 2)

FSA-5000/GWX-3000 COMPATIBILITY

GWX-3000	FSA-5000 (CPN 810-0001-XXX)																					
	002	003	100	004	104	005	105	006	106	008	108	009	010	109	110	020	120	220	320	222	322	
810-0007-001			*		*		*		*		*			*	*	*	*	*	*	*	*	*

FSA-5000/GWX-3001 COMPATIBILITY

GWX-3001	FSA-5000 (CPN 810-0001-XXX)																					
	002	003	100	004	104	005	105	006	106	008	108	009	010	109	110	020	120	220	320	222	322	
810-0058-001											*			*	*	*	*	*	*	*	*	*

FSA-5000/GWX-3002 COMPATIBILITY

GWX-3002	FSA-5000 (CPN 810-0001-XXX)																					
	002	003	100	004	104	005	105	006	106	008	108	009	010	109	110	020	120	220	320	222	322	
810-0142-001																	*		*			*

TPG3920_02

Software Versions
Figure 1 (Sheet 2 of 2)

Encrypted Application Key Enabling

NOTE: The FSA-5000 must be installed prior to enabling applications.

Refer to the IFIS Installation manual, RCPN 523-0780854, for installation specifics.

Subscription Database Installation

NOTE: The FSA-5000 must be installed prior to installing the databases.

- (1) Install any subscription databases by referring to the Field Loadable Software installation Manual, RCPN 523-0806267. Test databases are contained on a separate CD packaged with the FSA software. They are intended as a "talkout" test to verify the IFIS operability. These databases will display an Effectivity Begin and End date of 25 August 2003. They will appear with the a status of NOT CURRENT. The databases for the specific feature options that are enabled MUST be replaced with the current released databases that are intended for navigation and flight before the IFIS enters Flight Service. Refer to the following table for compatible Test Database and FSA part numbers.

TEST DATABASE DISC	FSA-5000, RCPN 810-0001-XXX																
	002	003	100	004	104	005	105	006	106	008	009	010	020	108	109	110	120
831-7252-001	X																
831-7252-002		X															
815-6512-002				X													
815-6512-003						X		X									
815-6512-004										X	X	X					
831-7252-101			X														
815-6512-101					X												
815-6512-102							X		X								
815-6512-103														X	X	X	
815-6512-320	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

TEST DATABASE DISC	FSA-5000, RCPN 810-0001-XXX (CONT)															
	220	222	320	322												
831-7252-001																
831-7252-002																
815-6512-002																
815-6512-003																
815-6512-004																
831-7252-101																
815-6512-101																
815-6512-102																
815-6512-103																
815-6512-320	X	X	X	X												

- (2) The subscription number to access the Electronic Charts test database is 0000000000000000.
- (3) The Test Database Disc contains the following loadsets which may be loaded to the COL_FSU Target.

TEST DATABASE DISC	LOADSET
815-6512-320	TestCharts
	TestEMAPS
	TestGWx
	TESTXMGWx

K. Compatibility

Figure 1 should be used to determine the versions of software that can be installed in the equipment. All currently available loadable software and applications are listed.