Pro Line 4™ to Pro Line 21™ Upgrade Program for Falcon 50EX

Upgrade your Pro Line 4™ flight deck with Pro Line 21™ LCD displays and bring next generation integrated display and situational awareness to your flight deck.

The Pro Line 4 to 21 upgrade offers advanced capabilities and reliability to your flight deck. Equip your aircraft for airspace modernization by replacing your Pro Line 4 CRTs with four Pro Line 21 LCD displays.

As the prerequisite to FANS 1/A, this cost effective upgrade brings graphical and operational capabilities to your Pro airplane that are now being delivered on new aircraft.

The new graphics capabilities unlocked with the Pro Line 21 Active Matrix Liquid Crystal Displays (AMLCD) provide a path to a paperless flight deck while providing a higher level of operational efficiency and convenience. This upgrade puts all of the information pilots need at their fingertips.

The Pro Line 4 on-board avionics sensors are integrated with the Pro Line 21 Primary Flight Displays (PFD) for the pilot and copilot as well as dual enhanced Multi Function Displays (MFD). All of which deliver greater situational awareness, efficiency, and performance.

Rockwell Collins

Building trust every day

ADVANCED SYSTEMS. SUPERIOR CAPABILITIES. LARGE-FORMAT CONFIGURABLE PFDS AND MFDS

The introduction of large-format LCD displays with the ability to deliver more information in ways that improve understanding, awareness and safety has revolutionized the modern cockpit. That's why the Pro Line 4 to 21 upgrade package features four large-format, (8 x 10) Ethernet capable liquid crystal adaptive flight displays with LED back lighting. These displays enable an upgrade to a Synthetic Vision System (SVS) and offer the clearest, sharpest displays in the business. Now, critical flight information including graphical weather, EGPWS, TCAS, lightning detection, airport location and more are available to you at the touch of a button.

The Pro Line 21 configurable display solution allows operators to choose from a growing list of third party interfaces. Configurable Data Concentrator Units (DCU) also allow for digital and analog IO conversions that are often required for third party integration, often eliminating the need for adapters. To determine compatibility, please contact your Rockwell Collins Regional Sales Manager.

KEY BENEFITS

> Large format configurable displays with LED back lighting
> Improved situational awareness
> Enhanced aircraft value
> XMWX Graphical Weather (CONUS only)
> FMS Chartlink™
> Half Bank Correction
> LPV FMS navigation
> Wall to wall ADI presentation
> Display of NTSC Video on MFD
> Two year CASP warranty on remaining Rockwell Collins cockpit avionics equipment

LPV

Rockwell Collins Pro Line 21 is supporting Localizer Performance with Vertical Guidance (LPV). LPV approaches are providing pilots unprecedented access to runways and airports that do not have an ILS or in some cases providing a valuable back up to the ILS. LPV approaches are also giving operators Cat 1 like approach minimums as low as 200' and half mile visibility.

FMS CHARTLINK™

We pioneered Chartlink™, an application that automatically updates and reconfigures IFIS chart information when the FMS flight plan is loaded or modified. For example, if weather causes a last minute flight plan change, Chartlink provides an updated set of charts at the touch of a button.

AIRCRAFT INFORMATION MANAGER (BASELINE)

The Rockwell Collins Aircraft Information Manager eliminates the need for pilots or technicians to manually upload critical avionics databases and download maintenance information onto laptops or USB sticks. It not only saves your flight department time and money, but it also makes it virtually impossible to misinterpret collected maintenance information or upload out-of-date navigational information.

U.S. domestic subscription services are free of charge for the first year. If you are not satisfied after the first year, return the IMS-3500 to a Rockwell Collins Service Center and reference Pro Line 4 to Pro Line 21 Upgrade Program for Falcon 50EX on the return paperwork.

When flying in the United States, you can rely on the built-in cellular capability that the IMS-3500 offers. When traveling elsewhere, you have the option to use:

> Our 160 country World-Wide cellular service to seamlessly provides your data connection
> Most cellular device's "personal hotspot" feature*
> * Hotspot must use WPA, WPA2, or WEP security protocol.
> *Cellular device must be added to IMS-3500's list of known Wi-Fi access points. Certain limitations apply.

KEY FEATURES:

> Small size, weight and power requirements
> Automatically transfers information and manages intermittent connectivity
> Available for Pro Line 21 avionics systems with a Rockwell Collins FMS version 3.0 or 4.0, or LPV FMS Upgrade
> Flange mount for easy installation
> No external antenna required
> High MTBF
> Secure data transmission over standard cellular/Wi-Fi connections

FMS 5.1 TO 6.1 OPTION

KEY BENEFITS OF FMS 5.1 TO 6.1 OPTION

> Dual FMS Sync Operation
> Fully Integrated Basic RNP and WAAS/LPV
> Fully Coupled VNAV
> Vspeeds
>> Balanced Field Length and Climb Gradient Calculations
>> Vspeeds on Airspeed Tape
> FMS Map and Text Data on MFD
> Integrated EGPWS23
> Lightning Detection Interface
> Performance Predictions
> Range to Altitude ARC
> PFD Display of Preselect NAV Source - NAV to NAV Capture
> PFD Display of FMS Flight Plan Target Altitude
> Optional 3rd FMS in IAPS Card Cage
> ARINC 739 FMS Scratch Pad Philosophy

INTEGRATED FLIGHT INFORMATION SYSTEM (IFIS)

ELECTRONIC CHARTS

IFIS replaces printed charts with high resolution electronic charts. Through integration with the aircraft GPS, the aircraft symbol can be displayed with geo-referenced approach, airport and airspace charts, allowing flight crews to monitor actual aircraft position. As a result, operating at night, in low visibility conditions or at unfamiliar airports becomes easier and more intuitive. Pan and zoom features, as well as selectable day or night mode operation, allows for easier viewing.

Paperless operation approval can be attained with the dual MFD and dual FSU solution. Paperless operational approval is achieved through your local certification office.

GRAPHICAL WEATHER

With IFIS, pilots have a powerful new tool to help them make more strategic decisions about their flight plans. Pilots can look at the big weather picture prior to each flight and during the flight as weather develops. Rockwell Collins IFIS offers two distinct weather service options, XMWX Satellite Weather and Datalink Graphical Weather services.

XMWX Satellite Weather is a continuous broadcast weather service offered in the Continental United States (CONUS):

> NEXRAD (1 NM Resolution)
> Echo tops and movement
> Graphical and textual METARs
> Graphical and textual SIGMETS
> Textual AIRMETS and TAFs
> IFIS 6 includes:
  ○ TFR's
  ○ Significant Meteorological Observations (SIGMETS)
  ○ Lightning
  ○ Animated NEXRAD
  ○ Satellite Images
  ○ Winds Aloft

Datalink Graphical Weather, for aircraft equipped with VHF data link,is a service offered worldwide

> NEXRAD images (Continental United States, 7 NM Resolution)
> NEXRAD with tops/movement (Continental United States)
> Icing
> Winds/temps
> Turbulence
> Weather depiction

ENHANCED NAVIGATION MAPS

The enhanced graphical capabilities of IFIS can provide overlays to the traditional navigation maps with the following:

> Geographic features such as rivers, lakes and oceans
> Political boundaries such as national and state borders
> Controlled, restricted and prohibited airspace
> High and low airways

KEY BENEFITS
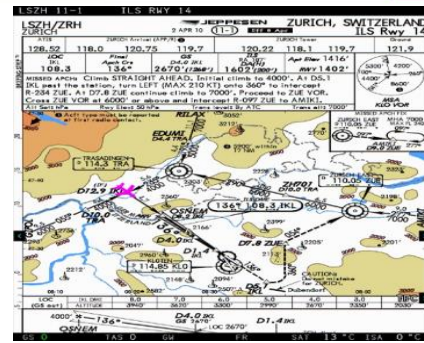
Electronic Charts
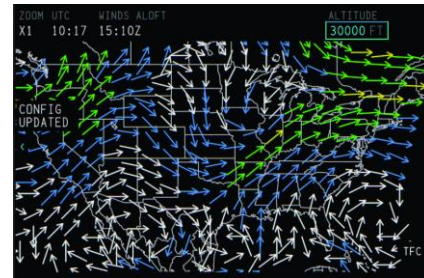
Winds Aloft
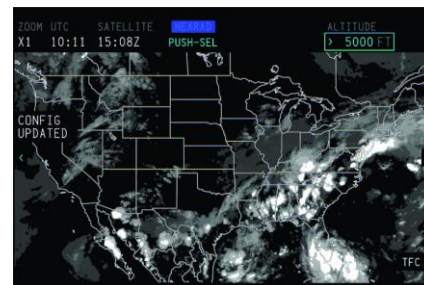
Satellite Images

Lightning, SIGMETS, METARS

Geographic features and Political boundaries with XMWX weather overlay

> Enhanced peace of mind on the airport surface and on approach to landing
> Improved situational awareness
> Reduced workload during critical phases of flight
> Reduced reliance on paper charts
> Growth path for future functionalities
> Enhanced Aircraft Value
> IFIS is a path to paperless operational approval

NTSC VIDEO ON MFD (BASELINE)

The display of video, in an NTSC format is presented on the lower half of the MFD. Video sources may be EVS, surveillance, or information cameras. Multiple video sources may be selected via an external switch. Display of the NTSC video on the MFD are compatible with:

> Max-Vis®-1000/1500
> L3 IRIS™
> Kollsman GAVIS™
> CMC Electronics CMA-2600, CMA-2610

SYNTHETIC VISION SYSTEM (OPTION)

Rockwell Collins Synthetic Vision System (SVS), provides the pilot with graphical presentation of the outside world. Reducing pilot work load and at the same time increasing the pilots situational awareness.

> Active departure and arrival runway can be depicted on the display
> Seamless integration with the Rockwell Collins FMS
> Optional Flight Path Vector Symbology

Controlled, Restricted Prohibited airspace

High and low airways

The optional SVS integrates 3D images to display terrain

NTSC Video on MFD

FUTURE AIR NAVAGATION SYSTEM (FANS 1/A)

With FANS 1/A, aircraft operators will have access to preferred wind-efficient transatlantic routes to save both time and fuel. Automatic Dependent Surveillance-Contract (ADS-C) and Controller Pilot Data Link Communications (CPDLC) functionalities together make up the FANS Package.

> > NextGen®, SBAS LPV, FANS-1/A cross-oceanic routing
> > Meets equipage requirements for domestic DCL/Data Comm
> > Saves flight costs; increases aircraft market value
> > Works with your current FMS control display units

PROTECTING YOUR INVESTMENT TODAY AND TOMORROW

Rockwell Collins has an on-going enhancement plan for the entire Pro Line 21 family of over 5,000 aircraft. This will provide the aircraft operators with an active upgrade path to ensure that the system you install today will be upgradable to meet upcoming technology advancement and regulatory demands. With Pro Line 21 in your aircraft, you are assured of always flying with the best.

TRADE-IN CREDIT

1) A trade-in credit will be issued against the purchase of Falcon 50ex Pro Line 4 to 21 Upgrade baseline equipment package at the special program price upon Rockwell Collins receipt of the existing removed avionics equipment.

2) A trade-in credit will be issued against the purchase of an AHC-3000A at the special program price upon Rockwell Collins receipt of an AHC-85E. Trade-ins are limited to one $5,000 credit for each AHC-3000A purchased.

3) A trade-in credit will be issued against the purchase of a FMC-6100 system at the special program price upon Rockwell Collins receipt of a dual non-Rockwell Collins FMS system.

Dealer acceptance of Marketing in this bulletin obligates the dealer to pass the applicable equipment trade-in amount in full to the aircraft end operator.

TRAINING

Rockwell Collins offers Computer Based Training (CBT) to aid operators in the transition from a Pro Line 4 to a Pro Line 21 flight deck. This CBT is free and is available for unlimited viewing. A passcode will be required to access this training. Please contact trainingregistrar@rockwellcollins.com or call 319-295-4672 to get the passcode. Download at http://www.rockwellcollinstraining.com/home/FreeTrainingpage.html.

For other training needs, including instructor led training, please contact "trainingregistrar@rockwellcollins.com" or call 319-295-4672.

2 YEAR WARRANTY PLUS CASP

Pro Line 4 to Pro Line 21 Upgrade Program for Falcon 50EX comes with a comprehensive two year equipment warranty. Additionally, Rockwell Collins will provide warranty coverage, via its Corporate Aircraft Service Program (CASP), for all remaining Rockwell Collins flight deck avionics on the aircraft. This provides operators full no charge access to repair and exchange services along with Removal and Refit services through Rockwell Collins.

TERMS AND CONDITIONS

Unless otherwise noted, this program is valid for orders placed between January 1, 2017 and December 31, 2017, with delivery requested by April 1, 2018Warranty period is two years for new equipment and one year for modified equipment. Standard warranty does not apply to software.

Customer units returned to Rockwell Collins for modification or exchange must be in a serviceable condition. Serviceable units are determined by Rockwell Collins to have normal field degradation, be of proper configuration and have no evidence of damage. Costs necessary to bring an unserviceable unit to a serviceable condition will be billed at the then current labor and material rates. Any necessary repairs already covered under the existing scope of the previously defined Pro Line Fusion upgrades will incur no additional charges to the customer.

PRO LINE 4 TO PRO LINE 21 UPGRADE BASELINE PACKAGE[1, 2, 5, 8, 9, 1 0, 11, 23]

Type	Notes	Description	CPN	New or Service Bulletin	Qty
AFD-3010E		Adaptive Flight Display	822-1753-450	New	4
DCP-3310		Display Control Panel	822-2388-300	New	2
CCP-3000		Cursor Control Panel	822-1746-002	New	2
DCU-3001C		Data Concentrator Unit	822-2362-004	New	2
MDC-3110		Maintenance Diagnostic Computer	822-1987-006	New	1
MDT-3110		Maintenance Diagnostic Table	810-0042-027	New	1
IMS-3500	19,20,21,22	Information Manager Server	822-2999-101	New	1
COMPUTER	6	Wi-Fi USB Device of IMS-3500	270-3376-010	New	1
COMPUTER	6	CELLULAR USB DEVICE OF IMS 3500	270-3376-020	New	1
IOC-4100		Input/Output Concentrator	822-1362-126	New	4
CSU-4100		Config. Strap Unit	822-1364-002	New	2
OCM-4100		TAWS/Video/LPV Control Module	822-1463-314	New	2
FSU-5010	23	File Server Unit	822-1543-201	New	1
FSA-5000	3	File Server Application	810-0001-110	New	1
ECU-3000		External Compensation Unit	822-1200-998	New	1
OVL-5000	2	Enhanced Map Overlay Application	810-0003-001	New	1
ECH-5000	2	Electronic Charts Application	810-0002-001	New	1
DBU-5010E	9	Data Base Unit	822-3000-302	New	1
GPS-4000S	8	Global Position Sensor	822-2189-010	New	2
RSP-4000		Reversionary Switch Panel	822-0273-002 to 006	SB 501	2
PWR-4000		Power Supply	622-9945-020 to 022	SB 4, 7	4
FMC-6000	14	Flight Management Computer (LPV)	822-0868-057 to 822-0868-132	SB 535, 540, 541, 543	2
FCC-4009		Flight Control Computer	822-1148-216/028/128 to 822-1148-228	SB 518	2
CASP	5	**Two Year Warranty on remaining Rockwell Collins Flight Deck Equipment**			
One Year AIM Subscription					
IMS-3500 STC	6,7,19,20,21,22	**STC#ST01641WI-D Part 25)**			
Computer Based LPV Training (CBT) for Pilots	17				
GPS-4000s AML STC		**Place order using STC #ST01433WI-D**			
DBU-5010E AML STC		**Place order using STC #ST01431WI-D**			

If LPV is already installed on your Pro Line 4 aircraft, omit CSU, DBU, GPS and upgrade of the FCC. FMC-6000 822-0868-114 will be upgraded via SB 541 and 543.

Contact Dassault at STC@FalconJet.com for STC ST11047SC.

OPTIONAL UPGRADES

OPTION 1: ROCKWELL COLLINS FMS-6100 UPGRADE PACKAGE (AVIONICS 5.1 TO 6.1)

Type	Notes	Description	CPN	Qty	New or Service Bulletin
FMC-6000		Flight Management Computer (LPV)	822-0868-132	2	New
CDU-6100		Control Display Unit/Ethernet	822-1354-104	2	New
ICC-4009		IAPS Card Cage	822-1407-001	1	New
LHP-4000		Lightening HIRF Protector	822-0287-201	1	New
LHP-4001		Lightening HIRF Protector	822-0332-201	1	New
ADC-850C	18	Air Data Computer	822-0374-134 to 822-0374-439/440	2	SB 36, 44, 49, 52, 56, 59, 61, 62, 63, 68, 504
CDU-6100 AML STC		PLACE ORDER USING STC #ST01335WI-D			
Dassault Technical Instructions	16	TI-F50EX-M2503-M			

OPTION 2: XMWX WEATHER

Type	Notes	Description	CPN	Qty	New or Service Bulletin
GWX-3001	2,7	Graphical Weather	810-0058-001	1	New
XMWR-1000	4,7	XMWX Weather Receiver	822-2031-002	1	New

OPTION 3: DATA LINK

Data Link may not be ordered or installed at the same time as FANS 1/A.

Type	Notes	Description	CPN	Qty
VHF-4000	15	VHF Transceiver	822-1468-310	1
CMU-4000		Comm Management Unit	822-1739-003	1
ECU-3000		CMU External Comp Unit	822-1200-999	1

OPTION 4: DATALINK GRAPHICAL WEATHER (Requires purchase of Data Link)[1,2,7]

Type	Notes	Description	CPN	Qty
GWX-5000	2	Graphical Weather	810-0004-001	1

OPTION 5: SECOND INTEGRATED FLIGHT INFORMATION SYSTEM (IFIS) [2,7]

Type	Notes	Description	CPN	Qty
FSU-5010	22	File Server Unit	822-1543-201	1
FSA-5000	3	File Server Application	810-0001-XXX	1
ECU-3000		External Comp Unit	822-1200-998	1
ECH-5000	2	Electronic Charts	810-0002-001	1
OVL-5000	2	Enhanced Maps	810-0003-001	1
GWX-30012 or	2	Graphical Weather (XMWX)	810-0058-001	1
GWX-5000	2	Graphical Weather (UNS)	810-0004-001	1

OPTION 6: THIRD ATTITUDE HEADING SYSTEM

Aircraft with an AHC-85E installed as the third attitude heading source, may want to have the AHC-85E replaced with AHC-3000A. There is a data rate incompatibility with the FMC that will prohibit LPV navigation on the side the AHC-85E is selected to. There is an AHC-85/85E Discontinuance Marketing Bulletin, 2011-092M with details about the AHC-85/85E support issues.

Type	Notes	Description	CPN	Qty
AHC-3000A		Attitude Heading Computer	822-1378-001	1
ECU-3000		CMU External Comp Unit	822-1200-209	1
MMT-3010		AHC Mount	822-1290-004	1
AHC-3000A STC	[13]	For STC details please contact StandardAero at Brett.ulrici@standardaero.com		

OPTION 7: SYNTHETIC VISION SYSTEM

Type	Description	CPN	Qty
SVC-3000	Synthetic Vision Computer	866-0232-010	1
VIU-3000	Synthetic Vision Computer, Video Interface Unit	866-0232-060	1
SVCM-3000	Synthetic Vision Configuration Module	822-3095-101/-109	1
SVC-3000K	Synthetic Vision Computer Install Kit	866-0232-050	1
SVC-3000M	Synthetic Vision Computer Mount Kit	866-0232-055	1
VIU-3000K	Synthetic Vision Computer Mounting Kit	866-0232-070	1
STC for SVS		FAA STC ST11162SC	

OPTION 8: ADS-B MANDATE COMPLIANCE

Type	Current CPN	Service Bulletins	New CPN	Qty
TDR-94 /	622-9352-007 through 408	SB 509, 514	622-9352-501	2
TDR-94D	622-9210-007 through 408	SB 509, 514	622-9210-501	2
TDR-94 /	622-9352-409	514	622-9352-501	2
TDR-94D	622-9210-409	514	622-9210-501	2

*** SOME TRANSPONDERS MAY REQUIRE PRE-REQUISITE SERVICE BULLETINS AT ADDITIONAL COST ***

Type	Current CPN	Service Bulletins	New CPN	Qty
TDR-94 / 94-D		SB 29		AR
TDR-94 / 94-D		SB 24		AR

Contact Dassault at STC@FalconJet.com for STC ST02963NY.

OPTION 9: FUTURE AIR NAVAGATION SYSTEM (FANS 1/A)

For more information or exchange pricing, please see the FANS 1/A – Falcon 50EX, 2000/EX Marketing Bulletin (BRS-160368.01).
FANS 1/A may not be ordered or installed at the same time as Data Link.

Type	Description	CPN	New or Service Bulletin	Qty.
CMU-1000	Communications Management Unit	822-3349-001	New	1
APM-1000	Aircraft Personality Module	822-3350-001	New	1
Installation Kit	Kit	386-0223-000	New	1
Certification Package	FANS 1/A Certification Package	ADFANS1/A	New	1 Year
IOC-4100	Input/Output Concentrator	822-1362-124	New	-4
IOC-4100	Input/Output Concentrator (FANS Capable)	822-1362-126	New	4
DBU-5010E	Data Base Unit	822-3000-302	New	-1
DBU-5010E	Data Base Unit (FANS Capable)	822-3000-202	New	1
CDU-6100 or		822-1354-102 to 822-1354-202	SB 519	2
CDU-6100		822-1354-104 to 822-1354-204	SB 519	

Contact Dassault at STC@FalconJet.com for STC ST04044CH.

NOTES

1. Contact your Rockwell Collins Regional Sales Manager prior to ordering to confirm integration capabilities.
2. Charts, mapping and graphical weather features require subscriptions.
3. FSA-5000 for XMWX Weather is -110, FSA-5000 for Datalink Graphical Weather is -010.
4. CONUS coverage only.
5. CASP Warranty must be initiated by the dealer at the time of installation. Please contact your Rockwell Collins Regional Sales Manager for information.
6. Dealer must order the Wi-Fi USB Device and the Cellular USB Device when ordering the IMS-3500.
7. Rockwell Collins AML STC# ST01641WI-D (Part 25) is available for the Falcon 50EX.
8. The installation of the GPS-4000S using Approved Model List (AML) STC, ST01433WI-D, is available from Rockwell Collins.
9. The installation of the DBU-5000/5010E using Approved Model List (AML) STC ST01431WI-D, is available from Rockwell Collins.
10. Honeywell Mark V EGPWS must be at software version 965-0976-217-217 or later.
11. One or two speed knob assemblies, part number 10100008-11, are required. Contact Skylight Avionics at phone number 661-265-0497.
12. A trade-in equipment credit is offered for a dual, non-Rockwell Collins FMS system.
13. FAA STC #SA01310CH-D is available from Standard Aero. For pricing and STC details please contact StandardAero at: Brett.ulrici@standardaero.com.
14. Purchase of a FMC-6000 Service Bulletin 535, 540, 541 and 543 are not required if option 1, Rockwell Collins FMS, is selected.
15. Use Rockwell Collins AML STC #ST01635WI-D, to install the new VHF-4000.
16. The Dassault TI's require installation of Kapton wiring. A dealer may choose to use MIL spec wiring, but this is a deviation to the TI. The deviation is accomplished by a wiring comparison analysis and approved by a DER. There is also a requirement for MIL wiring separation from Kapton wiring, and this is called out in the TI.
17. Two sessions of on-line computer based pilot LPV training are available free of charge. Please contact the training registrar at 319-295-4672 or email trainingregistrar@rockwellcollins.com. Please contact your Rockwell Collins Regional Sales Manager for more information.
18. Contact the Rockwell Collins Wichita Service Center; phone 316.677.4808, to verify the installed ADC-850F can be updated to a -467 status. In the event the ADC-850F cannot be updated, two new ADC-850F, 822-1036-667, must be purchased.
19. The dealer must contact Customer Support at 319-295-5000, Option 1, Option 1 or email customersupport@rockwellcollins.com to setup the AIM Web Portal Access.
20. First year U.S. Domestic subscriptions are included with the purchase of an IMS-3500. For additional information, please reference Marketing Bulletin IMBRS-110631.06M Rockwell Collins Aircraft Information Manager - Pro Line 4 and Pro Line 21.
21. Please contact Rockwell Collins for more details involving cellular data plans and coverage at 319-295-5000, option 1, option 1.
22. AIM subscription customers must contact Rockwell Collins to initiate the AIM subscription at 319-295-5000, option 3 or email fmssubs@rockwellcollins.com.
23. Use Rockwell Collins AML STC #ST01675WI to install the FSU-5010 (-201) in place of the FSU-5010 (-101).
24. Upgrade will require a change to Database Services Subscription. Please contact Rockwell Collins at 319-295-5000, option 3 or fmssubs@rockwellcollins.com to update your account.

SUBSCRIPTIONS

Electronic Charts
JEPPESEN
55 Inverness Drive East
Englewood, CO 80112-5498
Phone: 800.553.7750 or 303.328.4244
Fax: 303.328.4124
www.jeppesen.com

Enhanced Map Overlays
FMS and Data Base Support
400 Collins Road NE
Cedar Rapids IA 52498
Phone: 319.295.5000
Fax: 319.295.8757
http://www.rockwellcollins.com/FMS/main.asp

XMWX Weather
XM Satellite Radio
Listener Care Center
Phone: 800.985.9200

How can we help?

Please call Rockwell Collins Customer Support at
+1.319.295.50000

Building trust every day.

Rockwell Collins delivers innovative aviation and high-integrity solutions to commercial and government customers worldwide. Backed by a global network of service and support, we stand committed to putting technology and practical innovation to work for you whenever and wherever you need us. In this way, working together, we build trust. Every day.

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