

# Publications and Training Solutions

## Course Syllabus: 523-0807924

**COURSE TITLE:** Pro Line 21 King Air Pilot Familiarization

**PREREQUISITES:**

Students should have basic knowledge of aircraft avionics systems and the King Air aircraft.

**PURPOSE:**

This course provides pilots the training necessary to operate the Rockwell Collins Pro Line 21 Avionics System in the King Air.

**OBJECTIVES:** Upon completing this course, the student should be able to:

1. Identify all Rockwell Collins Pro Line 21 system and subsystem components.
2. Understand the features and theory of operation of all Rockwell Collins Pro Line 21 systems and subsystems.
3. Perform normal and abnormal flight operations using the Rockwell Collins Pro Line 21 avionics system.

**COURSE LENGTH:** 4 Days

**TRAINING DEVICES:**

Pro Line 21 for King Air Desktop Trainer (DTT)

**TRAINING MATERIALS:**

1. PowerPoint Presentation
2. Student Guide (523-0807924)

**REFERENCES:**

- |  |             |
|--|-------------|
| 1. DBU-5000/5010/5010E Data Base Unit                                  | 523-0808703 |
| 2. IFIS-5000 Integrated Flight Information System                      | 523-0806347 |
| 3. FMS-3000 v4.0 Flight Management System for King Air Series Aircraft | 523-0816977 |
| 4. Pro Line 21 Avionics System with IFIS for the Beechcraft King Air   | 523-0807239 |
| 5. RTU-4200/4210/4220 Radio Tuning Unit                                | 523-0777900 |
| 6. What is GPS?  | 523-0778254 |

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### **COURSE OUTLINE**

#### **0. Welcome & Introductions**

- A. Introductions
- B. Course Registration
- C. Course Description
- D. Course Material
- E. Schedule
- F. Course Objectives
- G. Evaluation
- H. Critique

#### **1. Electronic Flight Instrument System (EFIS)**

- A. Components and Controls
- B. Primary Flight Display (PFD)
- C. Electronic Standby Instrument System
- D. Multifunction Display (MFD)
- E. Integrated Flight Information System (IFIS)
- F. Abnormal Operations

#### **2. Flight Management System (FMS)**

- A. Control Display Unit (CDU)
- B. CDU Pages
- C. FMS Theory
- D. Data Entry
- E. Status Check and Position Initialization
- F. Flight Planning
- G. Enroute Procedures
- H. Vertical Navigation

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- I. Arrival and Approach Procedures
- 3. Flight Guidance System (FGS)**
  - A. Components and Controls
  - B. System Operation
- 4. Communication, Navigation, and Surveillance (CNS) Systems**
  - A. Components and Controls
  - B. Control Display Unit (CDU) Pages
  - C. Remote Tuning Unit (RTU) Pages
  - D. Communications and Transponder Data on the Displays
- 5. Integrated Flight Information System (IFIS)**
  - A. Components and Controls
  - B. Electronic Charts (E-Charts)
  - C. Data Link Graphical Weather (GWX)
  - D. XM Graphical Weather
  - E. Enhanced Map Data
  - F. Miscellaneous Pages
- 6. Weather Radar (WXR)**
  - A. Components and Controls
  - B. Radar Fundamentals
  - C. Radar Operation
  - D. Maintenance and Troubleshooting
- 7. Summary**
  - A. Review
  - B. Questions
  - C. Evaluations/Critiques

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**EQUIPMENT TYPE:**

EQUIPMENT	NOMENCLATURE	PART NUMBER
<b>Air Data System</b>		
Air Data Computer	ADC-3000	822-1109-011 822-1109-023 822-1109-043
Air Data Computer	ADC-3010	822-2083-002
<b>Attitude Heading Reference System</b>		
Attitude/Heading Computer	AHC-3000	822-1110-002
Flux Detector Unit	FDU-3000	822-1193-001
External Compensation Unit	ECU-3000	822-1200-002 822-1200-998
<b>Automatic Flight Guidance System</b>		
Flight Guidance Computer Module	FGC-3000	822-1108-031 822-1108-032 822-1108-047 822-1108-131 822-1108-132
Flight Guidance Panel	FGP-3000	822-1107-103
Primary Servo	SVO-3000	822-1168-001 822-1168-002 822-1168-003
Primary Servo	SVO-85B	622-5027-101
<b>Electronic Flight Instrument System (EFIS)</b>		
Adaptive Flight Display	AFD-3010	822-1084-361 822-1084-362
Adaptive Flight Display	AFD-3010E	822-1753-361 822-1753-362

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EQUIPMENT	NOMENCLATURE	PART NUMBER
Display Control Panel	DCP-3030	822-1828-061
		822-1828-161
Cursor Control Panel	CCP-3000	822-1746-001
Data Concentration Unit	DCU-3001	822-1483-101
		822-1483-102
<b>Flight Management System</b>		
Flight Management Computer	FMC-3000	822-0883-053
Control Display Unit	CDU-3000	822-0884-491
		822-0884-493
Data Base Unit	DBU-5000	822-2215-202
Data Base Unit	DBU-5010E	822-3000-202
Input Output Concentrator Module	IOC-3100	822-1361-615
<b>Radio System</b>		
Radio Tuning Unit	RTU-4200	822-0668-251
		822-0668-261
Radio Tuning Unit	RTU-4220	822-0730-461
VHF Transceiver	VHF-4000	822-1468-110
		822-1468-310
Communication Management Unit	CMU-4000	822-1739-002 822-1739-702
VOR/ILS/MKR/ADF Receiver	NAV-4000	822-1465-001
VOR/ILS/MKR Receiver	NAV-4500	822-1579-001
Distance Measuring Equipment	DME-4000	822-1466-001
Mode S Transponder	TDR-94	622-9352-005
		622-9352-008

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EQUIPMENT	NOMENCLATURE	PART NUMBER
Mode S Transponder	TDR-94D	622-9210-005
		622-9210-007
		622-9210-008
TCAS Receiver Transmitter	TTR-4000	822-1294-032
High Frequency Radio Receiver Transmitter	HF-9031A	822-0101-002
High Frequency Antenna Coupler	HF-9041	685-0350-002
<b>Weather Radar System</b>		
Receiver Transmitter Antenna	RTA-852	622-8439-004
Receiver Transmitter Antenna	RTA-800	822-1050-004
<b>Global Positioning System</b>		
GPS Sensor Unit	GPS-4000S	822-2189-004
<b>Radio Altitude System</b>		
Radio Altitude Receiver/Transmitter	ALT-4000	822-0615-206
<b>Integrated Flight Information System</b>		
File Server Unit	FSU-5010	822-1543-201
File Server Application Software	FSA-5000	810-0001-010
		810-0001-110
Graphical Weather	GWX-5000	810-0004-001
Graphical Weather	GWX-3000	810-0007-001
Graphical Weather	GWX-3001	810-0058-001
Electronic Charts	ECH-5000	810-0002-001

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<b>EQUIPMENT</b>	<b>NOMENCLATURE</b>	<b>PART NUMBER</b>
Map Overlays	OVL-5000	810-0003-001
XM Receiver	XMWR-1000	822-8031-001