

# Publications and Training Solutions

## Course Syllabus: 523-0824831

**COURSE TITLE:** Pro Line II to Pro Line Fusion® – King Air Pilot Operator/Pilot Training

**PREREQUISITES:** Students should have basic knowledge of aircraft avionics systems and a working command of the English language.

**PURPOSE:** This course provides King Air Operators (Pilots) with the knowledge necessary to operate the Pro Line Fusion® avionics system.

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

1. Identify the function/operation of the Pro Line Fusion components for the King Air avionics system.
2. Demonstrate the use of the Pro Line Fusion controls for the King Air avionics system.
3. Operate the Pro Line Fusion avionics system in accordance with normal and abnormal procedures.
4. Perform instrument flight procedures using the Pro Line Fusion avionics system.
5. Identify abnormal Pro Line Fusion avionics operations.

**COURSE LENGTH:** Approximately 4 Hours

**REFERENCES:**

1. Pro Line 2™ to Pro Line Fusion® Retrofit Operator Guide 523-0823131

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### COURSE OUTLINE

#### **0. Introduction to King Air Pro Line Fusion® Avionics System – Video**

#### **1. System Overview – Familiarization**

- A. Cockpit Orientation
- B. Adaptive Flight Display (AFD)
- C. Flight Display Elements
- D. System Components
- E. Summary and Quiz

#### **2. Touchscreen Interface – Video**

#### **3. Cursor Control Panel – Video**

#### **4. Multifunction Keyboard Panel – Video**

#### **5. Baro-Set-Radar Tilt Knobs – Video**

#### **6. Flight Planning – Video**

#### **7. Pre-Flight – Demonstration Performance**

- A. Set Com 1 Frequency
- B. Select Initial Cleared Altitude
- C. Set Barometric Pressure
- D. View Flight Plan on the Multifunction Display (MFD)
- E. Enter Origin Airport
- F. Enter Estimated Time of Departure
- G. Enter Cruise Altitude
- H. Enter Destination Airport
- I. Enter Alternate Airport
- J. Enter Departure Airport Information
- K. Enter Arrival Airport Information
- L. Enter Waypoint
- M. Resolve Discontinuity

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- N. Update Cargo Weight
- O. Enter Average Passenger Weight
- P. Change Fuel On Board Value

#### **8. Engine Start – Demonstration Performance**

- A. View Engine Start Checklist

#### **9. Before Taxi – Demonstration Performance**

- A. Set Vspeeds
- B. Quick Tune Radios

#### **10. Taxi – Demonstration Performance**

- A. Configure Flight Control System
- B. Configure Traffic and Weather Radar

#### **11. Takeoff – Demonstration Performance**

- A. Set up Flight Deck for Takeoff

#### **12. Flight Guidance – Video**

#### **13. Initial Climb – Demonstration Performance**

- A. Set FCS Mode and Enable Autopilot

#### **14. Cruise – Demonstration Performance**

- A. Set Primary Flight Display (PFD) and MFD View
- B. Modify a Flight Plan for Direct-To
- C. View Graphical Weather Format
- D. Set a Hold

#### **15. Descent – Demonstration Performance**

- A. Set FMS for Approach

#### **16. Approach – Demonstration Performance**

- A. Configure for NAV Approach

#### **17. Go Around/Missed Approach – Demonstration Performance**

- A. Missed Approach

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### **18. Philosophy – Familiarization**

- A. Menu Bar
- B. Quick Access Keys
- C. System Components
  - i. Flight Control Panel (FCP)
  - ii. Autopilot Panel (APP)
  - iii. Course Heading Panel (CHP)
  - iv. Cursor Control Panel (CCP)
  - v. Reversion Select Panel (RSP)
  - vi. Multifunction Keyboard Panel (MKP)
- D. Graphical User Interface (GUI)
- E. Display Conventions
- F. Data Entry Conventions
- G. Touchscreen Toolbar
- H. Troubleshooting
- I. Fault Indicators
- J. Reversion
- K. Onboard Maintenance System (OMS) Basic
- L. OMS Advanced
- M. AFD Cleaning
- N. Summary and Quiz

### **19. PFD – Familiarization**

- A. PFD COM Tuning
- B. Flight Mode Annunciators
- C. Airspeed Indicator
- D. Attitude Direction Indicator (ADI)
- E. Altitude Display

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- F. Horizontal Situational Display
- G. Synthetic Vision System (SVS)
- H. Traffic Alert Collision Avoidance System (TCAS)
- I. Summary and Quiz

### **20.MFD – Familiarization**

- A. Engine Indicating Crew Alerting System (EICAS)
- B. Map
- C. Quick Tune
- D. Tune Format
- E. SVS
- F. Terrain Awareness Warning System (TAWS)
- G. Electronic Charts
- H. Data Link Graphical Weather
- I. XM Graphical Weather
- J. Electronic Checklist
- K. Summary and Quiz

### **21.Data Loading – Video**

### **22.Tips and Tricks – Video**

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#### EQUIPMENT TYPE:

EQUIPMENT	NOMENCLATURE	PART NUMBER
Air Data Computer	ADC-3000	822-1109-131
Radio Receiver	ADF-60A	622-2362-001
Air Data Sensor	ADS-65	622-5797-001
Adaptive Flight Display	AFD-3700	822-3065-001
Attitude Heading Computer	AHC-3000A	822-1378-001
Altimeter	ALT-50A	622-3201-001
Autopilot Computer	APC-65J	622-9785-436
Aircraft Personality Module	APM-5000	822-2195-001
Autopilot Panel	APP-65A	622-6684-005
Advanced Terrain Functions	ATF-3500	810-0348-001
Control Adapter	CAD-62	622-6590-001
Cursor Control Panel	CCP-3500	822-2754-010
Course Heading Panel	CHP-3010	822-1280-003
Distance Measuring Equipment	DME-42	622-6263-003
Emulated Control Display Application	ECDA-6000	810-0233-100
External Compensation Unit	ECU-3000	822-1200-209
Equipment 2 MCU ARINC Tray	MCU Tray	270-2712-010
Flight Control Panel	FCP-65	622-5798-008
Flux Detector Unit	FDU-70	622-5812-001
File Server Application	FSA-6000	810-0072-302
Outboard IFIS Key	FSAX-3500	810-0354-001
Global Positioning System	GPS-4000S	822-2189-010

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EQUIPMENT	NOMENCLATURE	PART NUMBER
Integrated Modular Avionics Table	IMAT-3700	810-0352-001
Multifunction Keyboard Panel	MKP-3500	822-2568-010
Modular Mounting Tray	MMT-3000	822-1227-001
Mounting Tray	MMT-3010	822-1290-004
Onboard Data Loader Application	ODLA-3500	810-0345-1H0001
Onboard Maintenance System Application	OMSA-6000	810-0106-250
Onboard Maintenance System Table	OMST-6000	810-0099-2H0001
Protocol Manager Application	PMA-6000	810-0192-100
Receiver/Transmitter Antenna	RTA-842	622-9301-003
Radio Tuning System Application	RTSA-6000	810-0048-701
Single Knob Panel – Barometric	SKP-3500	822-3163-010
Single Knob Panel – Tilt	SKP-3500	822-3163-020
Servo Mount	SMT-65	622-5735-001
Servo Mount	SMT-65	622-5735-002
Servo Mount	SMT-85B	622-5029-002
Slip Skid Sensor	SSS-65	622-6019-001
Primary Servo	SVO-65	622-5734-001
Primary Servo	SVO-65	622-5734-002
Primary Servo	SVO-85B	622-5027-001
Transponder	TDR-94D	622-9210-501
TCAS Transmitter/Receiver	TTR-4100	822-3075-001

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<b>EQUIPMENT</b>	<b>NOMENCLATURE</b>	<b>PART NUMBER</b>
VHF COMM Transceiver	VHF-22C	822-1113-021
VOR/LOC/GS Receiver	VIR-32	622-6137-201