

Publications and Training Solutions

Course Syllabus: 523-0809379

COURSE TITLE: Pro Line 21™ – Hawker 800XP with Integrated Flight Information System (IFIS)
Operator/Pilot Training

PREREQUISITES:

Students should have a basic knowledge of aircraft avionics systems and a working command of the English language. Students should be familiar with MS Windows® based Operating Systems.

PURPOSE:

This course provides training to familiarize pilots with the functionality of the Hawker 800XP Pro Line 21™ Integrated Flight Information System (IFIS).

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

1. Identify Pro Line 21 Instrumentation.
2. Comprehend how Pro Line 21 components function in unison to provide the pilot flight information.
3. Perform the steps to:
 - a. Power up the Flight Management System (FMS)
 - b. Build a Flight Plan
 - c. Save and Load a Flight Plan
 - d. Enter Performance Data
 - e. Conduct Enroute Procedures
 - f. Execute a Missed Approach Procedure

COURSE LENGTH: 5 Hours

REFERENCES:

- | | |
|---|-------------|
| 1. Pro Line 21 Avionics System with IFIS for the Raytheon Hawker 800XP | 523-0807192 |
| 2. FMS-6000 v4.0 Flight Management System for the Hawker 750/800XP/850XP/900XP Operator's Guide | 523-0809284 |
| 3. Hawker 800XP With Pro Line 21, IFIS, and Digital CNS Avionics System Manual | 523-0807190 |

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COURSE OUTLINE

0. Welcome & Introductions

- A. Welcome to Rockwell Collins e-Learning

1. Primary Flight Display (PFD)

- A. Introduction
- B. Primary Flight Display (PFD)
 - i. Operation
 - ii. Theory of Operation
- C. Display Control Panel (DCP)
 - i. Operation
- D. Summary/Test
- E. Navigation/Bearing (NAV)/(BRG) Operation Procedures (Guided Practice / Assessment)
 - i. Select a Navigation Source
 - ii. Select a Bearing Source

2. Multi-Function Display (MFD)

- A. Introduction
- B. Multi-Function Display (MFD)
 - i. Operation
 - ii. Theory of Operation
- C. Display Control Panel (DCP)
 - i. Description
- D. Summary/Test

3. Integrated Flight Information System (IFIS)

- A. Introduction to IFIS-5000
 - i. Key Performance Features

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- ii. Preconditions
- B. IFIS Line Replaceable Unit (LRU) Descriptions
 - i. File Server Unit (FSU)
 - ii. Adaptive Flight Display (AFD)
 - iii. Cursor Control Panel (CCP)
 - iv. External Compensation Unit (ECU)
 - v. XM Weather Receiver (XMWR) and Antenna
- C. IFIS Operations
 - i. CCP Controls and Functions
- D. IFIS Theory of Operation
- E. Summary/Test
- 4. Radio Sensor System (RSS)**
 - A. Introduction
 - B. Tuning Description
 - i. Control Display Unit (CDU)
 - ii. COMM/NAV Tune Unit (CTL-23D)
 - C. CDU Familiarization
 - i. Operation
 - D. RSS Theory of Operation
 - E. Summary/Test
- 5. Weather Radar System (WXR)**
 - A. Introduction
 - B. WXR Description
 - i. Receiver/Transmitter Antenna (RTA)
 - ii. Display Control Panel (DCP)
 - C. How Radar Works

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- i. Thunderstorms
 - ii. Reflection
 - iii. Calibrated Gain
- D. WXR Modes of Operation and Features
 - i. Operational Mode
 - 1. DCP Controls
 - ii. Standby Mode
 - iii. Weather Only (WX) Mode
 - iv. Weather Plus Turbulence (WX-T) Mode
 - v. Terrain Mapping (MAP) Mode
 - vi. Sector Scan (SEC) Feature
 - vii. Antenna Stabilization Feature
 - viii. Target Alert Feature
 - ix. Test Mode
- E. Turbulence WXR Theory of Operation
- F. Summary/Test
- G. Weather Radar Mode Operation (Guided Practice / Assessment)
 - i. Initiate Weather Radar Mode
 - ii. Set Receiver Gain
 - iii. Turn off Sector Scan
 - iv. Initiate Antenna Stabilization
 - v. Turn off Target Mode
- H. Weather Radar Range / Weather Radar Manual Tilt and Auto Tilt Operations (Guided Practice / Assessment)
 - i. Change the Display Map Range
 - ii. Change the Weather Radar Tilt
 - iii. Enable the Weather Radar Autotilt

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6. Control Display Unit (CDU) / Flight Management System (FMS)

- A. Overview (Video)
- B. CDU Familiarization
 - i. Operation
 - ii. Theory of Operation
 - iii. Summary/Test
- C. Preflight (Video)
- D. FMS Power-Up Initialization Procedures (Guided Practice / Assessment)
 - i. CDU Power-Up Page
 - ii. Check for a Current NAV Database
 - iii. Swap the Current and Second NAV Database
 - iv. Synchronize FMS1 and FMS2
 - v. Initialize the FMS Position
- E. Build a Flight Plan Procedures (Guided Practice / Assessment)
 - i. Enter the Departure Airport
 - ii. Enter the Destination Airport
 - iii. Enter an Alternate Airport
 - iv. Enter a Waypoint
 - v. Enter an Airway
 - vi. Delete a Flight Plan Discontinuity
 - vii. Enter a Delete Command
 - viii. Enter the Departure Runway
 - ix. Enter the Standard Instrument Departure (SID)
 - x. Enter the Destination Approach and Transition
 - xi. View the Flight Plan on the Plan Map
 - xii. View Other Airport Data

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- F. Vertical Navigation (Video)
- G. Approaches (Video)
- H. Save and Load a Flight Plan Procedures (Guided Practice / Assessment)
 - i. Save the Flight Plan to a Pilot Route List
 - ii. Copy the Active Flight Plan to the Second Flight Plan
 - iii. Activate the Second Flight Plan
- I. Uploading Performance Data Procedures (Guided Practice / Assessment)
 - i. Enter the Cruise Altitude
 - ii. Enter the Passenger Weight
 - iii. Enter the Cargo Weight
 - iv. Check the Total Fuel Onboard
 - v. Check the Performance Mode
- J. Enroute Procedures (Guided Practice / Assessment)
 - i. View the Legs Page
 - ii. Delete a Flight Plan Discontinuity
 - iii. Enter a Hold
 - iv. Modify a Hold
 - v. Insert a Direct-To Waypoint
 - vi. Insert a Radial Intercept from a Heading Leg
 - vii. Insert a Radial and Distance Waypoint
 - viii. Insert an Off Airway Waypoint
- K. Missed Approach Procedures (Guided Practice / Assessment)
 - i. View the Missed Approach
 - ii. Sequence to the Missed Approach
 - iii. Sequence to the Alternate

7. Summary/Test

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EQUIPMENT TYPE:

EQUIPMENT	NOMENCLATURE	PART NUMBER
Adaptive Flight Display	AFD-3010	822-1084-308
Adaptive Flight Display	AFD-3010E	822-1753-308
Display Control Panel	DCP-3040	822-2117-002
File Server Unit	FSU-5010	822-1543-101
Cursor Control Panel	CCP-3000	822-1746-002
External Compensation Unit	ECU-3000	822-1200-998
XM Weather Receiver	XMWR-1000	822-2031-002
Receiver Transmitter Antenna	RTA-858	622-8441-004
Software: Universal Graphical Weather	GWX-5000	810-0004-001
Software: XM Graphical Weather	GWX-3000	810-0007-001
Control Display Unit	CDU-6200	822-1485-038 / 102 / 108
COMM/NAV Tune Unit	CTL-23D	822-2177-001 / 003 / 007