



Rockwell Collins Services Technical Operations Course Syllabus: 523-0808167

COURSE TITLE: Raytheon AHS-3000 Attitude Heading System
Operator

EQUIPMENT TYPES:

LRU	NOMENCLATURE	PART NUMBER
Attitude Heading Computer	AHC-3000	822-1110-002
External Compensation Unit	ECU-3000	822-1200-002
Flux Detector Unit	FDU-3000	822-1193-001

PREREQUISITES: Students should be computer literate and familiar with MS Windows® Based Operating Systems.

PURPOSE: This course provides Flightline Maintenance personnel with the knowledge that is necessary to operate and maintain the AHS-3000 Attitude Heading System.

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

1. Describe the purpose of the AHS-3000 system and the Line Replaceable Units (LRUs) that comprise the system.
2. Briefly describe the theory of operation of the AHS-3000 Attitude Heading System.
3. Describe the controls, indicators, and annunciations associated with the AHS-3000 Attitude Heading System.
4. Troubleshoot the AHS-3000 Attitude Heading System, isolating faults to the Line Replaceable Unit (LRU) level.
5. Perform the Post Installation testing and Compensation Procedures which are required to return the system to service.

COURSE LENGTH: Approximately .5 to 1.5 hours (Course length will vary from individual to individual, depending on the experience level of the participant)

REFERENCES:

1. Raytheon Hawker 800XP Avionics System, ASM 523-0780103
2. Raytheon Premier 1 Avionics System, ASM 523-0778447
3. Raytheon King Air Proline 21 Avionics System, ASM 523-0790063

RAYTHEON AHS-3000 ATTITUDE HEADING SYSTEM COURSE OUTLINE

I. Overview of the AHS-3000 Attitude Heading System

- A. AHS-3000 System
 - 1. Attitude Heading Computer AHC-3000
 - 2. Electronic Compensation Unit ECU-3000
 - 3. Flux Detector Unit FDU-3000

II. AHS-3000 Theory of Operation

- A. Normal Mode
- B. Direction Gyro (DG) Mode
- C. Slew Switch
- D. Control Features
- E. Inertial Measurement Unit (IMU)

III. Power-Up System Initialization

- A. AHS Mode
- B. AHS Initialization Time
- C. AHS Physical Location
 - 1 King Air
 - 2 Hawker
 - 3 Premier 1

IV. Post Installation Testing and Compensation Procedures

- A. Post Installation Test Procedure
- B. AHS Compensation Procedure
- C. MMT Leveling Procedure

V. AHS-3000 Fault Isolation and Troubleshooting

- A. Fault Isolation of Heading Errors
- B. AHC-3000 Troubleshooting
- C. FDU-3000 Troubleshooting

VI. Summary/Test