



GLOBAL AVIONICS TRAINING SPECIALISTS, LLC

AVIONICS AN OVERVIEW

COURSE SYLLABUS

I. INTRODUCTION

A. System Description

This course of instruction is designed as an introduction to the avionic systems used on today's modern business aircraft, helicopters and regional airliners. Discussion centers on the roles and responsibilities of the systems rather than how the system works. What information the system is providing is discussed in detail.

B. Course Objectives

Students completing this course of instruction will be familiar with the roles and responsibilities of the avionics systems installed on the aircraft in their company's fleet, or the aircraft that their company services.

C. Arrangement

Based on past experience, Global Avionics Training Specialists have arranged the subject material in an order best suited to continuity and ease of comprehension.

D. Duration

The course is three days in length for a total of 24.0 hours.

E. Student Prerequisite

It is suggested that students attending this course be line maintenance technicians with responsibility for servicing, troubleshooting and maintaining avionic systems.

II. COURSE CURRICULUM

A. Orientation

1. Welcome
2. Student registration
3. Class policies
4. Course description
5. Training material distribution
6. Location of facilities
7. Security

B. Systems

- Automatic Flight Control Systems
 - Autopilots
 - Flight Directors
- Attitude Heading Reference Systems
 - Vertical Gyros
 - Directional Gyros
 - Flux Valves
 - Magnetic Compensators
 - Spinning Mass AHRS
 - IFOG AHRS
 - Inertial Reference Systems (IRS)
- Air Data Systems
 - Computers
 - Flight Deck Displays
 - Pitot-Static Systems
- Flight Instrumentation
 - Electronic Flight Instrument System (EFIS)
 - Electronic Display System (EDS)
 - Engine Instrument Crew Alerting System (EICAS)
 - CRT and Flat Panel Displays
- Flight Management System
 - Functions
 - LNAV and VNAV
 - Flight Planning
 - Data Base Storage
 - Performance Management
 - Airborne Flight Information System (AFIS)
 - LRUs
- Global Positioning System (GPS)
 - Space Segment
 - Control Segment
 - User Segment
- Satellite Landing System (Differential GPS)
- Head Up Display (HUD)
- Navigation and Communication Radios
 - Communications Radios
 - VHF Comm
 - UHF Comm
 - HF Comm
 - Navigation Radios
 - Primus II Integrated Radio System
 - Comm Unit
 - Nav Unit
 - Radio Management Unit (RMU)
 - Audio Control Panel
 - Clearance Delivery Control Head

- Radio/Radar Altimeter
- Weather Radar
 - System Components
 - What does it detect/not detect
 - Storm levels & colors
- Lightning Sensor System
- Satcom
- Traffic Collision Avoidance System (TCAS I & II)
 - System Components
 - Traffic Advisories
 - Resolution Advisories
 - Symbols and colors
- Enhanced Ground Proximity Warning System (EGPWS)
 - System Components
 - Ground proximity warning
 - Terrain clearance floor (TCF)
 - Terrain awareness and alerting display (TAAD)
 - Symbols and colors
- Systems and Associated Aircraft
 - SPZ-4500 Jetstream 41
 - SPZ-5000 Citationjet
 - SPZ-6000 Aerospatiale ATR-42 & ATR-72
 - SPZ-7000 Bell 412
 - SPZ-7600 Sikorsky S-76
 - SPZ-8000 de Havilland DHC-8
 - SPZ-8000 Hawker 800XP
 - SPZ-8000 Canadair CL-601-3A
 - SPZ-8000 Dassault Falcon 900
 - SPZ-8400 Gulfstream IV
 - SPZ-8500 Gulfstream V
 - Primus 1000 Cessna Aircraft
 - Primus 1000 Learjet 45
 - Primus 1000 Embraer EMB-145
 - Primus 2000 Dassault Falcon 900EX
 - Primus 2000 Citation X
 - Primus 2000 Bombardier Global Express
 - Primus EPIC Aircraft
 - Primus EPIC Overview and Architecture

Summary