



GLOBAL AVIONICS TRAINING SPECIALISTS, LLC

AIRBORNE COMMUNICATIONS AND NAVIGATION SYSTEMS

COURSE SYLLABUS

I. INTRODUCTION

A. Course Description

This course of instruction is designed as an introduction to the communications and navigation 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 communication and navigation systems installed on their company's aircraft, 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 two days in length for a total of 16.0 hours.

E. Student Prerequisite

It is suggested that students attending this course be line maintenance technicians with responsibility for communication and navigation 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. Communications Systems

- Very High Frequency (VHF)
- Ultra High Frequency (UHF)
- High Frequency (HF)

C. Navigation Systems

- VHF Omni Range (VOR)
 - Radial/Bearing/Heading/Course
 - VOR Receiver Location
 - VOR Transmitter
 - VOR Deviation Displayed on HSI
 - TO/FROM Indication
- Distance Measured Electronically (DME)
 - DME Principles
- Non Directional Beacon System
- Instrument Landing System (ILS)
 - Categories
 - Runway Visual Range
 - Localizer Geometry
 - Glideslope Geometry
- Area Navigation (RNAV)
 - VOR Bearing
 - DME Slant Range
 - Barometric Altitude
- Inertial Navigation System (INS)
 - Basic INS Principles (Accelerometers)
 - INS Gyro
 - Inertial Platform
 - INS Computer
- Flight Management System
 - Computer Functions
 - Control Display Unit Functions (CDU)
 - Data Loader
 - Sensors
- Global Positioning System (GPS)
 - Satellites
 - Receiver
- Air Traffic Control System (ATC)(Transponder)
 - What is the Air Traffic Control System?
 - What are the parts that make up ATC?

D. Summary