Publications and Training Solutions
Course Syllabus: 523-0820276

COURSE TITLE: SATCOM 2200 Operations & Flightline Maintenance

PREREQUISITES: Students should have completed a two-year technical electronics school or have equivalent knowledge of aircraft avionics systems and a working command of the English language.

PURPOSE: This course provides students with the skills and background knowledge required for troubleshooting and isolating defective components in the SATCOM system using applicable manuals, block diagrams, and maintenance guides.

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

1. Provide an overall understanding of Satellite Communication principles, operations, and testing of the subject equipment.
2. Identify system components and the functional/operational characteristics of each line replaceable unit (LRU).
3. Identify typical aircraft system interface/system architecture.
4. Perform fault isolation to a faulty LRU using built-in test diagnostics.

COURSE LENGTH: 3 Days

TRAINING DEVICES:

1. ATC-601 Mode S/A/C Transponder Ramp Test Set
2. TCAS-201 TCAS Ramp Test Set
3. Premier I Test Rig or Collins Experimental Aircraft

TRAINING MATERIALS:

1. PowerPoint Presentation with LCD/Box Light projector
2. TV/VCR equipment
3. Student Handbook
4. Manuals

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REFERENCES:

1. SDU-2200 Satellite Data Unit and SCM-2200 SDU Configuration Module, Component Maintenance Manual 523-0810969
2. ARINC 781 SDU, SCM and FMPA System Manual

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COURSE OUTLINE

0. Welcome

A. Training Overview

i. Course Introduction

ii. Student Registration

iii. Student Policies and Procedures

iv. Classroom Hours/Lunch Breaks/Course Completion

v. Introductions

vi. Course Objectives

vii. Rockwell Collins Technical Information Proprietary Rights Acknowledgement

viii. Service First

1. Introduction

A. Inmarsat Overview

i. Inmarsat Networks

ii. I3 Satellites

iii. I4 Satellites

B. Services

i. Classic Aero

ii. ACARS

iii. Swift 64

iv. SwiftBroadband

C. System Description

D. System Interfaces

E. User Interfaces

F. Product Support

2. Installation

A. Installation Requirements Overview

B. SDU Installation
   i. Pinouts/ Wiring
   ii. Power Requirements
   iii. Interfaces

C. SDU Configuration Module (SCM) Installation
   i. Pinouts/ Wiring
   ii. Power Requirements
   iii. Interfaces

D. FMPA Installation
   i. Pinouts/ Wiring
   ii. Power Requirements
   iii. Interfaces

E. Installation Checkout Procedure
   i. Maintenance Port Utility
   ii. Terminal Emulation Program

3. Configuration

A. Configuration Parameters
B. ORT Overview
C. ORT Considerations
D. Configuring Parameters with MCDU
E. Loading ORT
F. Troubleshooting Configurations

4. Troubleshooting

A. General Guidelines
B. Checking the LED's
C. Checking the BITE Screen
D. System Information
E. Maintenance Port Access
F. Checking the Splash Screen

5. Summary/ Course Critique Closeout

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EQUIPMENT TYPE:

EQUIPMENT	NOMENCLATURE	PART NUMBER
FLANGE MOUNTED POWER AMPLIFIER	FMPA-2200	822-2557-101
SDU CONFIGURATION MODULE	SCM-2200	822-2558-101, 201
SATELLITE DATA UNIT	SDU-2200	822-2556-101, 102