



ATSEP QUALIFICATION TRAINING COURSE: SMC COMBINED

SYLLABUS

1. SMC – ANS STRUCTURE (SMC ANS)
 - 1.1. ANSP ORGANISATION AND OPERATION
 - 1.1.1. ANSP Organisation and Operation
 - 1.2. ANSP MAINTENANCE PROGRAM
 - 1.2.1. Policy
 - 1.3. ATM CONTEXT
 - 1.3.1. ATM Context
 - 1.4. ANSP ADMINISTRATIVE PRACTICES
 - 1.4.1. Administration
2. SMC – ANS SYSTEM / EQUIPMENT (SMC ASE)
 - 2.1. OPERATIONAL IMPACTS
 - 2.1.1. Degradation or Loss of System / Equipment Services
 - 2.2. USER POSITION FUNCTIONALITY AND OPERATION
 - 2.2.1. User Working Position
 - 2.2.2. SMC Working Position
3. SMC – TOOLS, PROCESSES AND PROCEDURES (SMC TPP)
 - 3.1. REGULATORY REQUIREMENTS
 - 3.1.1. SMS
 - 3.1.2. QMS
 - 3.1.3. SMS application in the working environment
 - 3.2. MAINTENANCE AGREEMENTS WITH OUTSIDE AGENCIES REQUIREMENTS
 - 3.2.1. Principles of agreements
 - 3.3. SMC GENERAL PROCESSES
 - 3.3.1. Roles and responsibilities



- 3.4. MAINTENANCE MANAGEMENT SYSTEMS
 - 3.4.1. Reporting
- 4. SMC - TECHNOLOGY (SMC TEC)
 - 4.1. TECHNOLOGIES AND PRINCIPLES
 - 4.1.1. General
 - 4.1.2. Communication
 - 4.1.3. Navigation
 - 4.1.4. Surveillance
 - 4.1.5. Data Processing
 - 4.1.6. Facilities
- 5. COMMUNICATION VOICE (COM VCE)
 - 5.1. AIR-GROUND
 - 5.1.1. Controller Worker Position
 - 5.2. GROUND-GROUND
 - 5.2.1. Interfaces
 - 5.2.2. Switch
 - 5.2.3. Controller Working Position
- 6. COMMUNICATION DATA (COM DAT)
 - 6.1. EUROPEAN NETWORKS
 - 6.1.1. Network Technologies
 - 6.2. GLOBAL NETWORKS
 - 6.2.1. Networks and Standards
 - 6.2.2. Description
 - 6.2.3. Global Architecture
 - 6.2.4. Air-Ground Subnetworks
 - 6.2.5. Ground-Ground subnetworks
 - 6.2.6. Air-Ground Applications
- 7. COMMUNICATION RECORDERS (COM REC)



- 7.1. LEGAL RECORDERS
 - 7.1.1.Regulations
 - 7.1.2.Principles
- 8. NAVIGATION - PERFORMANCE BASED NAVIGATION (NAV PBN)
 - 8.1. NAV CONCEPTS
 - 8.1.1.NOTAM
- 9. NAVIGATION – GROUND-BASED SYSTEMS NDB (NAV NDB)
 - 9.1. NDB / LOCATOR
 - 9.1.1.Use of the System
- 10. NAVIGATION – GROUND-BASED SYSTEMS DF (NAV DF)
 - 10.1. DF
 - 10.1.1. Use of the System
- 11. NAVIGATION – GROUND-BASED SYSTEMS VOR (NAV VOR)
 - 11.1. VOR
 - 11.1.1. Use of the System
- 12. NAVIGATION – GROUND-BASED SYSTEMS DME (NAV DME)
 - 12.1. DME
 - 12.1.1. Use of the System
- 13. NAVIGATION – GROUND-BASED SYSTEMS ILS (NAV ILS)
 - 13.1. ILS
 - 13.1.1. Use of the System
- 14. SURVEILLANCE – PRIMARY (SUR PSR)
 - 14.1. ATC SURVEILLANCE
 - 14.1.1. Use of PSR for Air Traffic Services
- 15. SURVEILLANCE – SECONDARY (SUR SSR)
 - 15.1. SSR AND MONO-PULSE SSR (MSSR)
 - 15.1.1. Use of SSR for Air Traffic Services
 - 15.2. MODE S



- 15.2.1. Introduction to Mode S
- 15.3. MULTILATERATION
 - 15.3.1. MLAT Principles
- 16. SURVEILLANCE – HMI (SUR HMI)
 - 16.1. HMI
 - 16.1.1. ATCO HMI
- 17. SURVEILLANCE – DATA TRANSMISSION (SUR DAT)
 - 17.1. SURVEILLANCE DATA TRANSMISSION
 - 17.1.1. Technology and protocols
- 18. DATA PROCESSING – DPS SYSTEMS (DAT DPS)
 - 18.1. USER REQUIREMENTS
 - 18.1.1. Controller Requirements
 - 18.1.2. Trajectories, Prediction and Calculation
 - 18.1.3. Ground Safety Nets
 - 18.1.4. Decision Support
 - 18.2. DATA PROCESSING – DATA PROCESS (DAT PRO) HARDWARE PLATFORM
 - 18.2.1. Equipment Upgrade
 - 18.2.2. COTS
 - 18.2.3. Interdependence
- 19. DATA PROCESSING – DATA (DAT DAT)
 - 19.1. DATA ESSENTIAL FEATURES
 - 19.1.1. Data Significance
 - 19.1.2. Data Configuration Control
 - 19.1.3. Data Standards