



ATSEP QUALIFICATION TRAINING COURSE: SURVEILLANCE SSR STREAM SYLLABUS

1. SECONDARY SURVEILLANCE RADAR (SUR SSR)

1.1. SSR AND MONO-PULSE SSR (MSSR)

- 1.1.1. Use of SSR for Air Traffic Services
- 1.1.2. Antenna (SSR)
- 1.1.3. Interrogator
- 1.1.4. Transponder
- 1.1.5. Receiver
- 1.1.6. Signal Processing and Plot Extraction
- 1.1.7. Plot Combining
- 1.1.8. Test and Measurement

1.2. MODE S

- 1.2.1. Introduction to Mode S
- 1.2.2. Mode S System

1.3. MULTILATERATION

- 1.3.1. MLAT in use
- 1.3.2. MLAT Principles

1.4. SSR ENVIRONMENT

- 1.4.1. SSR Environment

2. HUMAN MACHINE INTERFACE (SUR HMI)

2.1. HMI

- 2.1.1. ATCO HMI
- 2.1.2. ATSEP HMI
- 2.1.3. Pilot HMI
- 2.1.4. Displays



3. SURVEILLANCE DATA TRANSMISSION (SUR SDT)

3.1. SURVEILLANCE DATA TRANSMISSION

3.1.1. Technology and Protocols

3.1.2. Verification Methods

4. FUNCTIONAL SAFETY (SUR FST)

4.1. SAFETY ATTITUDE

4.1.1. Safety Attitude

4.2. FUNCTIONAL SAFETY

4.2.1. Functional Safety

5. DATA PROCESSING SYSTEMS

5.1. SYSTEM COMPONENTS

5.1.1. Surveillance Data Processing Systems