

ATSEP Qualification, DPR-DP

Air Traffic Safety Electronics
Personnel



Course aim

The ATSEP DPR-DP course is designed for technicians and engineers who need to understand the infrastructure used in Air Traffic Management (ATM) for data processing systems. It gives participants a thorough understanding of how data systems are used for surveillance and flight data processing within ATM. It also prepares them for System Equipment Rating Training, which is the next step in becoming an ATSEP.

Course structure

The course is 7 days in duration, consists of theoretical classroom lessons, and is delivered by experienced international instructors.

We deliver the course as classroom training with group assignments and emulators/exercises. Additionally, participants share their experiences amongst each other and join discussions based on the course material and inputs from instructors. Active participant involvement is an important part of this course: group discussions and assignments help them gain a deeper understanding of the subject and course material.

The course can be delivered on-site at Entry Point North, at the client's premises, or in a Virtual Classroom.

Content in brief

Functional Safety (DPR-FST)

Software Integrity and Security.

Data Processing Systems (DPR-DPS)

User requirements: controller requirements, trajectories, ground safety nets, decision support.

System components: data processing systems, flight data processing systems, surveillance processing systems.

Process (DPR-PRO)

Software process: middleware, operating systems, configuration control, software development process.

Hardware platform: equipment upgrade, COTS, interdependence, maintainability.

Testing: different methodologies for testing systems, application software, adaptation data.

Virtualisation.

Data (DPR-DAT)

Data essential features: data significance, data configuration control, data standards.

ATM data – detailed structure: systems area, characteristic points, aircraft performances, screen manager, auto-coordination messages, configuration control data, physical configuration data, relevant meteorological data, alert and error messages to ATSEPs, alert and error messages to ATCOs.

Com Data (COM-DAT)

Introduction to networks: types, networks, external network services, measuring tools.

Protocols: fundamental theory, general protocols.

National networks.

Global Networks.

Primary Radar (SUR-PSR)

ATC surveillance: use of PSR for ATS.

Secondary Radar (SUR-SSR)

SSR and MSSR: use of SSR for ATS.

Mode S: introduction to Mode S.

Multilateration: MLAT principles.

Surveillance HMI (SUR-HMI)

ATCO HMI, ATSEP HMI, system displays.

Surveillance Data Transmission (SUR-SDT)

Technology and protocols.

Prerequisites

To become an ATSEP, participants need to complete the [ATSEP Basic course](#), the [ATSEP Shared course](#), and at least one [ATSEP Qualification course](#). This Initial Training can be completed in two different orders:

- ATSEP Basic > ATSEP Shared > ATSEP Qualification, or
- ATSEP Basic > ATSEP Qualification > ATSEP Shared

This means that the only prerequisite for starting this Qualification course is to have completed the ATSEP Basic course. However, to become an ATSEP, participants will need to either complete an ATSEP Shared course before taking the Qualification course, or complete an ATSEP Shared course after they completed the Qualification course.

Compliance with regulations

- Commission Regulation (EU) 2017/373 Annex XIII, subpart A.
- EASA ANNEX XIII – Part-PERS requirements for service providers concerning personnel training and competence assessment Subpart A – Air Traffic Safety Electronic Personnel. Appendix 4a Qualification training – Streams Data – Data Processing.