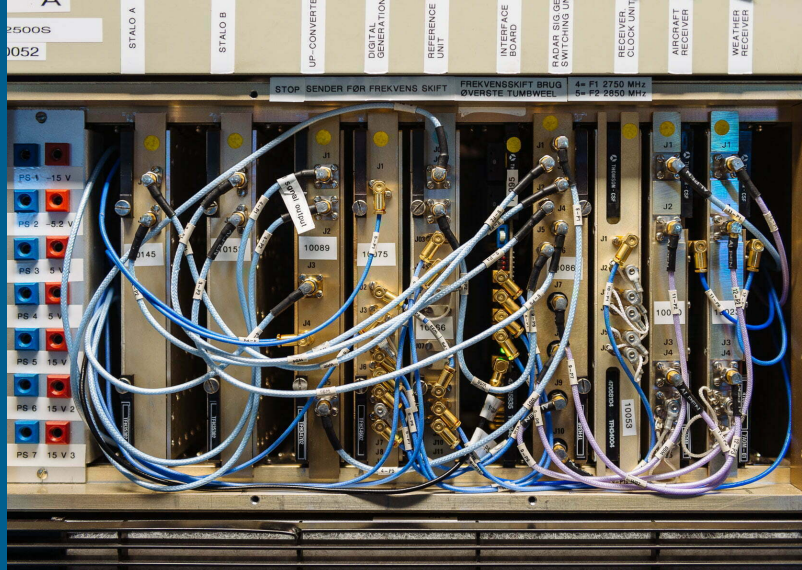


ATSEP Qualification, SUR Combined



Course aim

This course is designed for technicians and engineers who need to understand the infrastructure used in Air Traffic Management (ATM) for surveillance. It gives them the knowledge and skills needed for operating and maintaining surveillance equipment to support the complete ATM system. It also prepares them for System Equipment Rating Training, which is the next step in becoming an ATSEP.

How you will learn

The course contains the following streams:

- SUR-PSR
- SUR-SSR
- SUR-ADS

It is also possible to participate only in a part of the course which covers an individual stream.

The course is offered in three ways depending on the flexibility needed for our learners. The standard access is 90 days, and we estimate that 10 commitment days are needed to complete the course.

EPN on demand

EPN on demand provides learners with complete flexibility and control over their learning experience. It's a self-paced course, allowing the learners to access digital materials such as reading resources, videos, quizzes and interactive content whenever it suits their schedule. The learner automatically receives a certification upon completion.

EPN live guidance

In EPN live guidance, we combine the flexibility of on-demand learning with the added benefits of real-time instructor split up into 4 scheduled half days. Here, we deep-dive into topics, discuss real-world examples and share knowledge. We also offer 1:1 sessions that the learners can book with the instructor on their own initiative. The learner automatically receives a certification upon completion.

During the scheduled period of live sessions, learners can engage and communicate with their peers and the instructor.

EPN onsite

Onsite training is offered upon request. The onsite course can be delivered at customer site or any EPN site.

What you will learn

HMI (SUR-HMI)

HMI: ATCO HMI, ATSEP HMI, pilot HMI, displays.

Surveillance Data Transmission (SUR-SDT)

Surveillance data transmission: technology and protocols, verification methods.

Functional Safety (SUR-FST)

Safety attitude: the ATSEP role in safety management routines.

Functional safety: the impact of functional failures in SUR systems.

From qualification Data Processing: Data Processing Systems

Surveillance data processing systems: surveillance data processing systems.

Primary (SUR-PSR)

ATC surveillance: use of PSR for air traffic services, antenna (PSR), transmitters, characteristics of primary targets, receivers, signal processing and plot extraction, plot combining and characteristics of primary radar.

SMR: use of SMR for air traffic services and radar sensor.

Test and measurements: making measurements on PSR and SMR.

Secondary (SUR-SSR)

SSR and MSSR: use of SSR for air traffic services, antenna (SSR), interrogator, transponder, receiver, signal processing and plot extraction, plot combining, test and measurement.

Mode S: Introduction to Mode S, Mode S system.

Multilateration: MLAT in use, MLAT principles.

SSR environment.

ADS (SUR-ADS)

General view on ADS: basic characteristics of ADS.

ADS-B: introduction to ADS-B, technique of ADS-B, VDL Mode4 (STDMA), Mode S Extended Squitter, UAT, ASTERIX.

ADS-C: introduction to ADS-C, technique of ADS-C.

Prerequisites

To become an ATSEP, learners 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, learners 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.