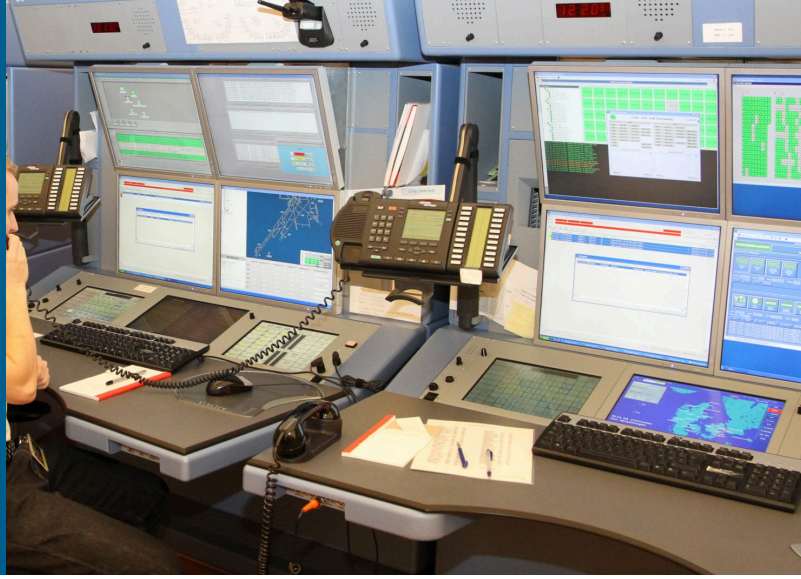
ATSEP Qualification, SMC Combined



Course aim

The ATSEP SMC Combined course is designed for technicians and engineers who need to understand the infrastructure used in Air Traffic Management (ATM) for systems, monitoring, and control of CNS equipment. The course gives learners the knowledge and skills needed for operating and maintaining SMC 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:

- SMC-COM
- SMC-NAV
- SMC-SUR
- SMC-DP

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 8 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 3 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.

ATSEP QUALIFICATION, SMC COMBINED

What you will learn

ANS Structure (SMC-ANS)
ANSP organisation and operation: air navigation service provider organisation and operation.
ANSP maintenance program: the needs and the usage of maintenance policy and how this affects the SMC function.
ATM context.
ANSP administrative practices: the administration related to support the SMC function.

SMC System/Equipment (SMC-ASE)
Operational impact: degradation or loss of system/equipment services.
User position functionality and operation: user working position, SMC working position.

SMC Tools, Processes and Procedures (SMC-TPP)
Regulatory requirements: SMS, QMS, SMS application in the working environment.
Maintenance agreements with outside agencies: principles of agreements.
SMC general processes: roles and responsibilities.
Maintenance management systems: reporting.

Technology (SMC-TEC)
Technologies and principles: general, communication, navigation, surveillance, data processing, facilities.

Communication (SMC-COM)

- **Voice**
  Air/ground: controller working position.
  Ground/ground: the different types of interfaces, switch, controller working position.
- **Data**
  European networks: network technologies.
  Global networks: networks and standards, description, global architecture, air/ground sub-network, ground/ground sub-networks, air/ground applications.
- **Legal Recorders**
  Legal recorders: international and national regulations and principles.

Navigation (SMC-NAV)

- **Performance Based Navigation**
  NAV concepts: the concept of performance-based navigation.
- **Ground Based Systems NDB**
  NDB/Locator: the use of NDB/Locator in a SMC context.
- **Ground Based Systems DF**
  DF: the use of DF in a SMC context.
- **Ground Based Systems VOR**
  VOR: the use of VOR in a SMC context.
- **Ground Based Systems DME**
  DME: the use of DME in a SMC context.

Suveillance (SMC-SUR)

- **Primary**
  ATC surveillance: the use of PSR for ATS in a SMC context.
- **Secondary**
  SSR and MSSR: the use of SSR for ATS in a SMC context.
  Mode S: the use of Mode-S for ATS in a SMC context.
  Multilateration: The principles of MLAT in a SMC context.
- **HMI**
  HMI: ATCO HMI, ATSEP HMI, system displays.
- **Surveillance Data**
  Surveillance data: SUR technologies and protocols used by the SMC function.

Data Processing (SMC-DP)

- **Data Processing Systems**
  User requirements: controller requirements, trajectories, prediction and calculation, ground safety nets, decision support.
- **Process**
  Hardware platform: equipment upgrade, COTS, interdependence.
- **Data**
  Data essential features: data significance, data configuration control, data standards.

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.