

ATSEP QUALIFICATION, SUR PSR+SSR

Air Traffic Safety Electronics Personnel



Course aim

The course is designed to impart domain-related knowledge and skills appropriate to the Surveillance (SUR) qualification streams (SUR-PSR and SUR-SSR) in accordance with the EASA Annex XIII - Part- Pers Requirements for Service providers concerning personnel training and competence assessment subpart A – Air Traffic Safety Electronics Personnel.

Course objectives

After completion of the course, participants have:

- Knowledge and understanding of the subjects described below in accordance with the EASA Annex XIII - Part- Pers Requirements for Service providers concerning personnel training and competence assessment subpart A – Air Traffic Safety Electronics Personnel.
- Knowledge and understanding of the importance of teamwork.

Course overview

The duration of the course is seven days. The competency-based training consists of theoretical lessons and is delivered by professional international instructors. The theory comprises individual topics covering various aspects of operating and maintaining SUR equipment.

Entry Point North offers the ATSEP qualification SUR PSR+SSR course, i.e. a course covering ATSEP qualification SUR streams SUR-PSR and SUR-SSR.

Prerequisites

ATSEP Basic.

Compliance with regulations

The course is compliant with Commission Implementing Regulation (EU) 2017/373 Annex XIII, subpart A.

Content in brief

Primary (SUR-PSR)

ATC SURVEILLANCE

Explain, describe, define and analyse 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

Explain, describe, define and analyse use of SMR for air traffic services and radar sensor.

TEST AND MEASUREMENTS

Appreciate how measurements can be made on PSR and SMR.

Secondary (SUR-SSR)

SSR AND MSSR

Explain, describe, define and analyse use of SSR for air traffic services, antenna (SSR), interrogator, transponder, receiver, signal processing and plot extraction, plot combining, test and measurement.

MODE S

Explain, describe, define and analyse Introduction to Mode S, Mode S system.

MULTILATERATION

Explain, describe, define and analyse MLAT in use, MLAT principles.

SSR ENVIRONMENT

Explain, describe, define and analyse SSR environment.

HMI (SUR-HMI)

HMI

Explain, describe, define and analyse ATCO HMI, ATSEP HMI, pilot HMI, displays.

Surveillance Data Transmission (SUR-SDT)

SURVEILLANCE DATA TRANSMISSION

Explain, describe, define and analyse technology and protocols, verification methods.

Functional Safety (SUR-FST)

SAFETY ATTITUDE

State the ATSEP role in safety management routines.

FUNCTIONAL SAFETY

Describe the impact of functional failures in SUR systems.

From qualification Data Processing: Data Processing Systems

SURVEILLANCE DATA PROCESSING SYSTEMS

Explain, describe, define and analyse surveillance data processing systems.