ATSEP Qualification, NAV Combined

Course aim

This course is designed for technicians and engineers who need to understand the infrastructure used in Air Traffic Management (ATM) for navigation. It gives them the knowledge and skills needed for operating and maintaining navigation 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.

Course structure

The course is 10 days in duration, consists of theoretical classroom lessons, and is delivered by professional international instructors. It contains the following streams:

- NAV-VOR
- NAV-DME
- NAV-ILS

Other streams (NAV-NDB, NAV-DF) can be added upon the client's request, extending the course duration. It is also possible to participate only in a part of the course which covers an individual stream.

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

Performance Based Navigation (NAV-PBN)
NAV concepts: operational requirements, performance-based navigation, area navigation concept (RNAV), and NOTAM.

Global Navigation Satellite System (NAV-GNS)
General view of GNSS.

On Board Equipment (NAV-OBE)
On-board systems: the on-board systems used for navigation.
Autonomous navigation: inertial navigation.

Vertical navigation: vertical navigation.

Functional Safety (NAV-FST)
Safety attitude: the ATSEP tole in safety management routines.
Functional safety: the impact of functional failures in NAV systems.

Ground Based Systems – VOR (NAV-VOR)
Use of system, fundamentals of CVOR and/or DVOR, ground station architecture, transmitter sub-system, antenna sub-system, monitoring and control sub-system, on-board equipment, system check and maintenance.

Ground Based Systems – DME (NAV-DME)
Use of system, fundamentals of DME, ground station architecture, receiver sub-system, signal processing, transmitter sub-system, antenna sub-system, monitoring and control sub-system, on-board equipment, system check and maintenance.

Ground Based Systems – ILS (NAV-ILS)
Use of system, fundamentals of ILS, 2F-systems, ground station architecture, transmitter sub-systems, antenna sub-system, monitoring and control sub-systems, on-board equipment, system check and maintenance.

Optional add-on topics

Ground Based Systems – NDB (NAV-NDB)
Use of system, ground station architecture, transmitter sub-systems, antenna sub-system, monitoring and control sub-systems, on-board equipment, system check and maintenance.

We currently have a NAV-NDB course scheduled, which takes place on 14 November in a Virtual Classroom. Contact us for more information and to book a seat.

Ground Based Systems – DF (NAV DF)
Use of system, VDF/DDF architecture, receiver sub-systems, antenna sub-system, monitoring and control sub-systems, system check and maintenance.

We currently have a NAV-DF course scheduled, which takes place on 15 November in a Virtual Classroom. Contact us for more information and to book a seat.

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.

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