PERFORMANCE BASED NAVIGATION

Performance Based Navigation course aim

The course is designed for operational air traffic controllers and other ATM personnel and designed to participants with fundamental knowledge on Performance Based Navigation (PBN).

Course objectives

After completing the Performance Based Navigation course, the participants have:

• A genuine understanding of the concept of Performance Based Navigation and its major impact on navigational capabilities
• Knowledge of PBN’s impact on airspace management and its benefits for the environment

Course overview

The Performance Based Navigation course can be conducted as a stand-alone module or in conjunction with the Basic ATS or Basic ATC courses. The acquisition of necessary skills is achieved through a combination of theory training, practical examples, exercises and study visit to an ACC/TMC.

The course is delivered over a 1- or 2-week period (depending on the level of detail for each module) with 4 contact hours a day. A tailor-made course can be offered to meet individual client needs.

Prerequisites

Qualification as an Air Traffic Controller or other ATM personnel with at least 2 years of operational experience.

Content in brief

• The concept of PBN according to the ICAO PBN manual (ICAO Doc 9613 Edition 4)
• Different navigation specifications
• The difference between RNAV and RNP
• The concept of GNSS, navigation satellite constellations, signal structures, system errors, augmentation, limitations and vulnerabilities (GPS, GLONASS, Galileo)
• How PBN is changing airspace management
• Criteria for Area Navigation and how they are applied in Europe
• Criteria for PBN in TMA including how it is applied for SIDs/STARs
• Criteria for PBN in the approach phase

Photo: LFV, Kenneth Hellman