

Instrument Procedure Design Course : Arrival and Non precision Approach for PBN or conventional procedures

ON SITE



Sector(s)

Theme(s) :

Audience :

Head teacher : David SZYMANSKI

Contact registration : Service Formation Continue - (+33) 5 62 17 47 67 / 43 43 - formationcontinue@enac.fr

Number of places : 14

Duration : 15 day(s)

2023 : 7560 €

Dates / Times **///**

05/13/2024 06/14/2024

From 13/05/24 to 27/05/2024 : remote course

From 03/06/2024 to 14/06/2024 : at ENAC Toulouse

Goals **///**

At the end of this training, the participant, as future procedure designer tutored by a senior procedure designer, is able to:

- Design PBN and conventional arrival procedures
- Design Non-Precision Approach (NPA) 2D RNP procedures (LNAV Minima).
- Design VOR or NDB procedures.

Attendees **///**

Future procedure designer, manager of a procedure design office.

Prerequisites ///

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- Attendance of first course “ Comprehensive Instrument Procedure Design Course : General Criteria “or equivalent is required.
- Attendees should feel comfortable to communicate in English. (LEVEL: Intermediate)

Training content ///

At ENAC, according to ICAO doc 9906 volume 2, the initial training of IFR procedures designer consists of 4 main courses. The courses complete each other. This course is considered as the second step of a thorough basic training to design IFR procedure.

The training is structured around courses, exercises and assessments to apply all the regulatory criteria addressing arrival and NPA procedures. The pillar of this training consists of a project conducted to design a set of procedures that best replicates a real case: from the analysis of constraints to the production of regulatory documents.

Focus

The course deals with:

- PBN concept and applications;
- Straight protection areas for PBN application;
- Turn protection areas construction according to path terminator and type of waypoint;
- Coding;
- Conventional Fixes;
- Straight protection area for conventional STAR and Non-Precision approach procedures;
- Turn protection area construction for conventional procedures;
- Racetrack;
- Reversal;
- MSA (Minimum Sector Altitude), TAA (Terminal Area Altitude);
- Demanding criteria applicable in complex environment (Non straight-in approach, descend within intermediate segment, turn at FAF, increase of OCA, turn at MAPt...);
- Publication;
- Procedure design documentation.

Side lectures :

Complementary information may be provided on PANS-OPS related subjects.

Aircraft simulator or ATC simulator can be provided.

Teaching methods used

Theoretical courses :

The session's first 10 days are in remote classe and provided via the e-learning platform.They are followed by

collaborative "all-together-sessions" to reinforce and check the understanding of the presented regulatory elements.

Presentation and explanation of the rules and principles described in Doc 8168-OPS/611

Laboratory exercises :

Elementary use of the regulation concepts in a simplified environment, conducted to enforce the theoretical input.

Exercises are daily scheduled. Part of these (first 9 days) are done in remote classes, the others are in classroom.

Project :

Design of PBN STAR and RNP APCH NPA, in a geographic and aeronautic realistic environment.

The design is conducted by group of two or three attendees, step by step tutored by instructors. The project includes also the design of the corresponding Instrument Approach Chart and appropriate documentation.

Assesment :

Several progress tests are carried out to identify the trainee's ability to apply procedure design criteria. Correction of the projects is part of the assessment. At the end of the course, an individual assessment report is provided to each participant.

Assistance :

Contact with referent teacher(s) is provided throughout the course.

Course materials : Courses and exercises booklets, assessments report and copy of the side-lectures.

The benefits of this training ///

50% of the content is practiced in a realistic environment.