Instrument Procedure Design Course : Precision Approach for PBN or conventional procedures and Approach with vertical guidance (APV)

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 : 6458 €

Dates / Times ///

09/02/2024 09/20/2024

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 ILS CAT I procedure
- Design LOC Only procedure
- Design APV barometric vertical navigation (BARO-VNAV) procedure
- Design SBAS cat I or APVI procedure
- Design NPA SBAS procedure

Attendees ///

Future procedure designer, manager of a procedure design office

Prerequisites ///

Attendance of previous ENAC Instrument Procedure Design Course: IPD2-E : "General Criteria "and "Arrival and Non Precision Approach for PBN or conventional procedures" 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. Each course is completing each other. This course is considered as the third 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 departures, precision approach and approach with vertical guidance 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:

- OAS CAT I and APV I,
- APV baro VNAV surfaces,
- HL,
- OCA/H computation,
- Basic ILS surfaces,
- CRM,
- VSS,
- RNAV or Non RNAV initial and missed approach segments onto ILS,
- Turn protection areas connection onto OAS,
- RF onto ILS or SBAS cat I,
- Limit of segments,
- Coding,
- FAS data block,
- Demanding criteria applicable in complex environment (offset final approach track alignment criteria, High GP,, increase of OCA, Missed approach as soon as possible ...),
- Publication,
- Procedure design documentation,

Side lectures

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

Theoretical courses

4 days devoted to departure criteria are in remote classes 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.

Presentaiton and explanation of the rules and principles described in ICAO Doc 8168-PANS-OPS

Laboratory exercises

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

Exercises are daily scheduled

Project

Design of ILS Cat I and PBN RNP approach (NPA, APV BARO-VNAV and SBAS CATI) procedures in a geographic and aeronautic realistic environment.

The design in conducted at ENAC 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, SID Chart and appropriate documentation.

Assessment

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

Assitance

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 practice in realistic environment.