



ICAO

International Civil Aviation Organization
African Flight Procedure Programme

Instrument Flight Procedure Design Initial Training Course

Nairobi, Kenya, from 6 to 31 October 2025

TRAINING PROGRAMME

The course covers key topics in instrument flight procedure design, including general criteria, calculation and design principles, and specific procedures such as arrivals, departures, precision approach (PA), non-precision approach (NPA), and holding patterns using conventional navigation aids (NDB, VOR, VOR-DME).

Theoretical lectures consist of presentations and detailed explanations of the principles and rules outlined in ICAO Doc 8168 (PANS-OPS) and Doc 9906 (Quality Assurance Manual). These are complemented by hands-on laboratory exercises to reinforce theoretical concepts using simplified design environments.

Agenda Item 1: Overview of Flight Procedures and General Principles

- Definitions, abbreviations, acronyms, and units ;
- Terminal area fix construction ;
- Turn area construction ;
- Quality assurance fundamentals.

Agenda Item 2: Design Criteria

- Departure procedure ;
- Arrival and non-precision approach procedures;
- Precision approach procedures ;
- En-route criteria ;
- Holding pattern design (conventional holdings).

Agenda Item 3: Theoretical Lectures

- Presentation and explanation of principles from ICAO Doc 8168 (PANS-OPS) ;
- Overview of quality assurance concept (Doc 9906, Quality Assurance Manual)

Agenda Item 4: Laboratory Exercises

- Practical application of design criteria in a simplified environment.

Agenda Item 5: Supplementary Lectures

- Additional topics related to PANS-OPS, including:
 - Charting requirements
 - Procedure identification and naming conventions

Agenda Item 6: Course Output

- Formative assessment.