



ICAO

International Civil Aviation Organization  
African Flight Procedure Programme

**Eighth Meeting of the African Flight Procedure Programme Steering Committee  
(Dar es Salaam, 23 - 24 August 2022)**

**AGENDA ITEM 5: PRESENTATION OF INFORMATION PAPER BY  
STAKEHOLDERS**

**TITLE OF PAPER: The dynamics and challenges of Flight Procedure Design Domain**  
*(Presented by Kenya)*

**SUMMARY**

The implementation of Performance Based Navigation (PBN) remains a global priority geared towards helping the global aviation community reduce airspace congestion, conserve fuel burn, protect the environment, reduce the impact of aircraft noise and improve, reliable airport accessibility on all-weather operations. Several challenges still need to be addressed for AFI region to comply fully with PBN, Continuous Climb Operations (CCO), Continuous Descent Operations (CDO), regulatory oversight and PBN operators' approvals requirements.

This paper outlines the dynamics and challenges in the sustainability of Flight Procedure Design domain which the AFPP steering committee needs to consider and continuously address during Phase III of AFPP.

**REFERENCE(S):**

- Assembly resolution A37-11
- Assembly resolution A39-14
- APIRG meeting, Conclusion 19/17 – AFI Flight Procedure Programme (AFI-FPP)
- ICAO Doc 9906 (Vol. 1-6): Quality Assurance Manual for flight procedure design
- Annex 11- Air Traffic Services Appendix 7
- AFPP SC/5 meeting Decisions and Recommendations
- AFPP SC/2 AFPP Phase II Task Force

**Related ICAO Strategic Objective(s): A, B and E Safety, Capacity and Efficiency, Environmental Protection**

**1.0 INTRODUCTION**

1.0.1 Assembly resolution A39-14 emphasizes on regional cooperation and assistance to resolve safety deficiencies, establishing priorities and setting measurable targets. The Assembly urged Member States to utilize the Flight Procedures Programme, where available, for PBN implementation;

1.0.2 The rationale of establishing AFPP was to assist States develop sustainable capability in instrument flight procedure domain so as to meet their commitment under Assembly resolution A37-11 for Performance Based Navigation (PBN).

1.0.3 This programme should therefore, foster all aspects of PBN implementation including training, procedure design, validation and quality assurance, airspace design, operators approvals and regulatory oversight.

## **1.1 Challenges**

- 1.1.1 States shall ensure that they have an established/delegated instrument flight procedure design organization which utilizes a quality management system at each stage of the design process.
- 1.1.2 States shall develop competency-based training and assessment to ensure skills, knowledge and attitudes are based on a systematic approach including determining how these competencies have to be achieved.
- 1.1.3 States shall implement Flight Validation which is a mandatory step in the flight procedure design process flow. There are two types of activities in the flight validation: Simulator Evaluation and Flight Evaluation.
- 1.1.4 States shall ensure establishment of a safety oversight system as a regulatory function to effectively check Flight procedure design processes.
- 1.1.5 States shall implement a process of operators' approval for PBN operations and develop technical guidance materials to ensure aircraft/fleet maximum utilization of designed PBN flight procedures.
- 1.1.6 States shall integrate relevant Aviation System Block Upgrade (ASBU) elements that leads to increased airspace capacity and volume of traffic without increasing controller workload.

## **1.2 Discussion**

- 1.2.1 As described above the scope of Flight procedure design domain is wide and dynamic therefore AFPP needs to implement a holistic approach to ensure States are assisted to meet the ICAO strategic objective based on their needs.
- 1.2.2 Time has come however, for the AFPP to explore other options available to remain focused on the programme objective amidst the limited resources and the increased demand from States for the technical assistance.
- 1.2.3 To meet the inclusivity of all AFI States that have an established flight procedure design capability, the AFPP Phase III strategic objective should be geared towards introducing advanced training such as Helicopter Point-in Space, RNP AR Procedure, RNP/RNAV transition to ILS, Refresher and other new Flight Procedure training brought about by amendments of ICAO Standards.
- 1.2.4 The extension of the SBAS service to the whole African continent would make SBAS available around the world. Phase III AFPP strategy should be geared towards implementation of SBAS in the AFI-Region because States will be required to develop SBAS flight procedures in a near future.
- 1.2.5 The value addition the AFPP has introduced in the region cannot be overstated. However, States needs to continue supporting the programme by facilitating financial resources or 'in-kind' contributions including hosting some Programme activities to ensure that 'No Country is left behind' in the implementation of PBN.
- 1.2.6 Kenya remains committed to the strategic objectives of ICAO with respect to enhancing the global aviation safety and security and has put in place adequate systems that can be utilized to meet the high demand for Flight Procedure Design Services in the region.

## **ACTION BY THE MEETING**

- 1.3 The meeting is invited to:
  - a) Take note on the information contained in the paper.
  - b) Take note on the challenges facing States that AFPP needs to explore during Phase III.

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