



**Nineteenth Meeting of the CAR/SAM Regional Planning and Implementation Group
 (GREPECAS/19)**

Online, 27 – 29 October 2021

Agenda Item 3: GREPECAS Work Programmes, Objectives and Results
 3.2 GREPECAS Work Programmes, Objectives and Results

Regional CAR Flight Procedure Programme (CAR FPP)

(Presented by COCESNA)

EXECUTIVE SUMMARY	
<p>This working paper express the support of COCESNA and the Central American States for the initiatives for Regional CAR Flight Procedure Programme (CAR FPP) as a regional collaborative solution for ensuring effective, cost-effective and sustainable implementation of PBN in the region.</p>	
Action:	Action indicated in section 3
<i>Strategic Objectives:</i>	<ul style="list-style-type: none"> • Air Navigation Capacity and Efficiency • Economic Development of Air Transport • Environmental Protection
<i>References:</i>	<ul style="list-style-type: none"> • ICAO NACC FPP Initiative

1. Introduction

1.1 Performance-based navigation (PBN) is the highest air navigation priority of the International Civil Aviation Organization (ICAO) for its operational benefits and improvement in safety of operations and Capacity and efficiency for aircraft performance and use of the air space. PBN is an important element of the ICAO Aviation System Block Upgrades (ASBUs) for taking advantage of those operational benefits that are envisaged in the ICAO Global Air Navigation Plan (GANP).

1.2 The current levels of PBN implementation in the Caribbean region (CAR) and for the Central American States are shown in Appendix to this paper.

1.3 One of the elements of the PBN that has been identified as a major obstacle for State implementation of the PBN, due to their limited resources and the need for local/national qualified specialized staff, is the flight procedure design activities. In most cases for its implementation, States are to hire third party to develop the PBN procedures in a very costly way resulting in a high cost implementation.

2. Discussion

2.1 ICAO NACC RO has identified that regional collaboration is one of the best cost-effective solution for State to progress in the implementation of services and systems as has been identified with the Flight Procedure Design Programme initiative (FPP), and so has promoted their initiative for Regional FPPs for the CAR Region.

2.2 The Central American States and COCESNA have been working together as a block in the implementation of Air navigation services throughout the Central American FIR, in harmonized coordination and operation with the Adjacent FIRs and providing the highest standard of services and safety level required. As such, the FPP initiative of ICAO is an option that COCESNA has joined to support the Central Region and the CAR region improvement in this matter.

2.3 COCESNA has identified several problems items faced by States that could resolved and be supported by the FPP initiative:

- a) Insufficient number of procedure designers;
- b) Insufficient process design work in some States to achieve or maintain the PANS OPS mastery;
- c) Lack of training in enroute airspace design and terminal procedures: initial, intermediate and advanced as well as on-the-job (OJT) and / or recurrent training;
- d) Lack of operational knowledge and PANS OPS, geodesy, quality and data monitoring to integrate the design of IFR procedures efficiently in airspace design;
- e) Lack of depth in the organization of the design of IFR procedures to perform quality assurance (QA) in relation to Volumes 1 to 6 of Doc. 9906;
- f) Insufficient experience in the organization of IFR procedure design to provide adequate quality control of said the aforementioned procedures;
- g) Lack of knowledge of procedures design and automation of data storage of obstacles (WGS84 Doc. 9674) and terrain data (eTOD Doc. 9881) in the States with the use of Geographic Information Systems (GIS) as well also of its respective analysis;
- h) Lack of training services provision for ATM personnel for PBN implementation.

2.4 COCESNA currently supporting the Central American States in these Procedure design task, and has a well-established unit for Procedure Design, with qualified personnel, software and hardware infrastructure and expertise:

- a) provide training courses, refresher courses, distance learning, on-the-job-training (OJT) or on the location of the FPP to the procedures designers;
- b) Provide training courses and OJT for operators to approve PBN operations;
- c) Assist the State in the implementation of a PBN Plan through the operational evaluation of its airspace and the planning of activities for the PBN implementation;
- d) Help the State to develop its regulations related to PBN;
- e) Assistance to the State in the approval of operators for PBN operations;
- f) Provide training courses and OJT for ATM personnel and local operators on PBN flight procedure operations;
- g) Provide the State with any other associated assistance required in the field of PANS OPS procedures;

2.5 In this regard, COCESNA supports to be a Regional FPP that will help the Central American States mainly and gradually the rest of the CAR Region. The FPP will assist States to develop sustainable capabilities in the instrument flight procedure domain (IFP) according with the Assembly Resolution A36-23's objective to ensure safe and efficient performance of the global Air Navigation System; to fulfill their commitments under Assembly Resolution A37-11 that all States implement RNAV and RNP air traffic services (ATS) routes and approach procedures in accordance with the ICAO PBN concept laid down in the Performance-based Navigation (PBN) Manual, for the Performance-based navigation (PBN) implementation and States obligations for the quality of its IFPs.

- 2.6 COCESNA envisions the following results for being a CAR FPP:
- a) The States of the CAR Region will have to significantly improve the competence in the design of procedures.
 - b) Increase States air space procedures implementation.
 - c) Increase their AIP publication in the State and regulation according with the new procedures.
 - d) Increase in the number of local operators approved for PBN operations;
 - e) Proven evidence to improve safety and efficiency of IFR flight operations.

3. Suggested actions

3.1 The Meeting is invited to:

- a) take note of the Central American States and COCESNA's support the ICAO NACC initiative for the Regional CAR FPP;
- b) exchange their views for enhancing the FPP collaboration and actions toward gaining more efficiency and participation for the Regional FPP; and
- c) propose any other actions and activities in supporting the PBN implementation.

APPENDIX

Regional PBN Implementation Status- CAR Region and Central America

