International Civil Aviation Organization
Regional Aviation Safety Group - Pan America (RASG-PA)

INFORMATION PAPER

RASG-PA ESC/38 — IP/02
12/05/23

Thirty Eighth Regional Aviation Safety Group — Pan America Executive Steering Committee Meeting (ESC/38)
Lima, Peru, 24 to 25 May 2023

Agenda Item 2: Safety management process within RASG-PA

EXTENDED EXPERIENCE OF THE RASG-PA PROJECT "FROM VISUAL TO PBN" IN THE CAR REGION INITIATIVE

(Presented by Mexico and the Secretariat)

EXECUTIVE SUMMARY	
The purpose of this document is to report on the implementation status of the project "from visual to PBN" in the CAR Region, which seeks to emulate and improve the experience of the SAM Region to be applied in the candidate airports of Mexico.	
Strategic Objectives:	• Safety
References:	• Visual Project to PBN: Experience in the SAM region – Guapi airport, Colombia.

1. Introduction

1.1 Originally, the "Visual to PBN" project was born from an initiative of the manufacturer ATR, in view of the fact that their aircraft operate mostly on visual runways that do not have instrument procedures, which exposes them, on the one hand, to a greater operational risk associated with non-procedural approaches. stabilized, loss of situational awareness, CFIT, etc., especially in less than optimal conditions, and on the other, also to a limitation of accessibility due to the fact that they are subject to visual meteorological minima.

1.2 Additionally, Assembly Resolution A37-11 only promotes the implementation of PBN on runways where an instrumental procedure already exists. In this sense, it was considered that the real benefit of the implementation of PBN approaches could occur more on those runways that do not have any procedure.

1.3 Due to the above, the ICAO South American (SAM) Regional Office undertook the task of acting as general coordinator to direct the efforts of the various actors who were interested in contributing to the project for the common good.

1.4 As a result of the above, it was possible to publish in the AIP of Colombia procedures for departures, arrivals and PBN approaches to both thresholds to the Guapi runway, of said State, which are already available to operators.

1.5 The implementation of this project in the CAR region will bring great benefits to aviation, so given the characteristics of the various States in the region, as well as the volume of air operations and the number of airports that it has, Mexico gathers the best conditions for its implementation. In the same way, this will contribute to greatly mitigate operational safety aspects that compromise the approaches in the various airports of said country.

2. Project Implementation Status

2.1 Based on the South American experience, ICAO and Mexico committed to its expanded implementation, ICAO as general coordinator of the Project and Mexico/Civil Aviation Authority-Federal Civil Aviation Agency (AFAC) as implementer together with the various authorities. the industry and anyone who was willing to collaborate for the materialization of said project.

2.2 Despite initial delays due to the collection of information and results of the PBN Project in South America and the ordering of the different actors in Mexico for this Project, coordination began in the second semester of 2022. There was a long list of candidate airports for the implementation of the project, finally two of them were selected that met the sought conditions (regular operations, visual runway and that the geography does not require (RNP-APCH) AR), so that the airports of Oaxaca, Oax . and Cabo San Lucas, B.C.S. were those proposed for its implementation, since these exceed 18,000 operations (the majority of commercial flights), with a flow of more than 1,300,000 passengers per year and have the Airbus A320 as critical aircraft, causing a large number of unstable approaches.

2.3 Likewise, the administrators of the aforementioned airports were commissioned to prepare the removal of obstacles, as well as the type A and B charts, so that once these requirements are met, the air navigation authority (SENEAM) will be able to start the development of procedure design, coding, simulator validation and real flight, for which it is estimated that, by the end of May 2023, the aforementioned documents will have been prepared and approved.

2.4 Likewise, for the implementation of said project, the development of the following basic tasks is contemplated:

a. Obstacle lifting
b. Procedure design
c. Procedure coding
d. Tests in simulators for the validation of the procedure
e. Validation in real flight of the procedures

2.5 Due to the foregoing and given the inherent times for the preparation of each of these tasks, it is estimated that, by December 2024, said project will be duly implemented in the candidate airports.

2.6 For the current status of the Project, two face-to-face meetings and four virtual meetings have been held with AFAC, SENEAM, and the administrators of the Oaxaca, Oax airports. and San Jose del Cabo, B.C.S., as well as with the ICAO SAM Regional Office.

2.7 Up to now, the Project does not estimate major costs for its implementation, but some minor costs that will be defined in coordination with the main actors of the Project, which may be costs for training or development of some letters/procedures. The current actors of the project are contributing in kind their experience and work in the implementation of this project.

3. Conclusion

3.1 The Expanded Experience initiative of the RASG-PA project "From Visual to PBN" in the CAR region, was very well accepted by civil aviation authorities, airport operators, service providers and other stakeholders.

3.2 The implementation of the project has been developed with some delays, among which are identified as main; the tasks of the civil aviation authority, as well as the fact that the Mexican State is preparing to be evaluated soon by the Universal Safety Oversight Audit Programme - Continuous Monitoring Approach (USOAP-CMA).

3.3 Notwithstanding the foregoing, it is fully confident that by the end of this year the referred project will be fully implemented at the proposed airports.

— END —