



Thirty Seventh Regional Aviation Safety Group — Pan America Executive Steering Committee Meeting (ESC/37)

Mexico City, Mexico, 25 to 26 May 2022

Agenda Item 2 Safety management process within RASG-PA

ENHANCED EXPERIENCE OF THE “VISUAL TO PBN” RASG-PA PROJECT IN THE CAR REGION

(Presented by Secretariat)

| EXECUTIVE SUMMARY | |
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| This document proposes the implementation of the “visual to PBN” Project following the lessons learned from the experience in the SAM Region but now applying it in an aerodrome in the CAR Region, to test the assumptions and recommendations accomplished in the previous SAM Region’s experience. | |
| Suggested action: | Under paragraph 3 |
| <i>Strategic Objective:</i> | <ul style="list-style-type: none"> • Safety |
| <i>References:</i> | <ul style="list-style-type: none"> • RASG-PA ESC/37 IP/03 • RASG-PA ESC/36 Meeting Report • RASG-PA/11 Meeting report |

1. Introduction

1.1 During the ESC/31 meeting held in Buenos Aires, ATR (Avions de Transport Régional) made reference to Performance-Based Navigation (PBN) approaches and their benefits for safety and efficiency. Reference was made to ICAO's mandate to implement PBN on all international Instrument Flight Rules (IFR) runways; however, it would be more beneficial to push forward the implementation of PBN on Visual Flight Rules (VFR) runways. Converting VFR runways to IFR is much cheaper today with PBN availability, compared to conventional IFR. ATR made a proposal to work together with the RASG-PA Secretariat and present a project at ESC/32 meeting to demonstrate the benefits of converting VFR to IFR using PBN. If the case is strong enough, a proposal can be made to ICAO to expand the scope of PBN implementation. The meeting issued Decision ESC/31/D7 authorizing ATR and the Secretariat to develop the project.

1.2 During the ESC/33 meeting held in Lima on 11 and 12 September 2019, it was reported that Brazil and Colombia had confirmed their intention to start the implementation of PBN in visual runways as part of the RASG-PA project, during 2019 and 2020 respectively.

1.3 The first pilot implementation exercise is being carried out for the Guapi (SKGP) airport in Colombia. The PBN procedure has already been developed, as well as the obstacle identification and assessment. Covid-19 pandemic impacted the original timeline of events, so a new schedule was prepared, and the project team is moving forward with the approval process. The team is trying to complete its tasks as soon as possible, despite the difficulties imposed by the pandemic.

1.4 As part of the “Visual to PBN” RASG-PA Project, Colombia Civil Aviation Authority completed the development of the Area navigation (RNAV) Instrument Approach Procedures for Guapi, that were validated in a Full Flight Simulator (FSS) and in an aircraft (conducted by ATR on 5 March 2021 in Miami).

2. Discussion

2.1 During the RASG-PA/11, the Secretariat presented the status of progress of the Implementation Projects of Performance-Based Navigation (PBN) and Flight Data Analysis Programme (FDAP) procedures, which are both in the final stage of execution.

2.2 Considering the long term objective of this project to support the amendment of ICAO Assembly Resolution A37-11 “Performance based navigation global goals” to incorporate “visual runways with commercial operations” into the targets of the resolution; the RASG-PA ESC/36 Meeting agreed on the need to deploy similar projects in more airports and more regions, and the natural next step would be to do the next project on a airport of the NAM/CAR Regions.

2.3 From the current “Visual to PBN” SAM Project, many lessons and experience had been accomplished and several recommendations and data had been collected to support the recommendations and the outcomes. This accumulated experience is now proposed to be used in an aerodrome in the CAR Region that can evaluate and validate several of the recommendations as well as enhance the results and outcomes for the foreseen goal.

2.4 To this extent, the ICAO NACC Regional Office, in coordination with Mexico, would like to propose the conduction/deployment of an enhanced implementation of the “visual to PBN” Project in several potential aerodromes, like:

- General Mariano Matamoros Airport (MMCB), also known as Cuernavaca Airport
- General Juan N. Alvarez Airport (MMAA), also known as Acapulco International Airport
- Licenciado Gustavo Díaz Ordaz Airport (MMPR,) also known as in Puerto Vallarta, international airport

2.5 The final decision is to be made by mid-July 2022, and based on that, adjustments to the project planning will follow. The participation of the Mexican entities like AFAC, SENEAM, airport groups, airlines, airport operators, ATR and others is planned. The enhancement implementation will follow the lessons learned and best practices observed in the SAM Region project experience, and emulate the trial and testing in the CAR Region airport. A similar cost as the “Visual to PBN” SAM Project is foreseen for the CAR Project implementation.

2.6 In this regard, the following Draft Conclusion is proposed:

| DRAFT Conclusion | | ENHANCED VISUAL TO PBN PROJECT IN THE CAR REGION | |
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| RASG-PA ESC/37/XX | | | |
| What: That, in order to validate and enhance the results and outcomes of the previous “Visual to PBN” Project deployed in the SAM Region, the RASG-PA approves the deployment of an enhanced Project in a CAR Region airport following the support by Mexico in the potential airport candidates of MNCB, MMAA, MMRP and similar, the ICAO NACC Regional Office: a) coordinate with the “Visual to PBN” SAM Project on conducting a similar deployment of the Project but including the lessons learned and best practices observed up to present; b) work with industry partners and Mexico on the best airport for the deployment of the CAR Project; and c) report to the RASG-PA/12 Plenary on the planning and progress on the Project deployment | | Expected impact: <input type="checkbox"/> Political/Global <input type="checkbox"/> Inter-regional <input checked="" type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Operational/Tech. | |
| Why: To support the amendment of ICAO Assembly Resolution A37-11 to incorporate “visual runways with commercial operations” into the targets of the resolution | | | |
| When: <i>Project Approval: Immediate</i> <i>Item c) RASG-PA/12</i> | | Status: Valid | |
| Who: <input type="checkbox"/> States <input type="checkbox"/> ICAO NACC Office <input checked="" type="checkbox"/> Other | | <i>Note: Project to be executed under the supervision of the NACC Regional Officer Mrs. Sereya Schotborgh</i> | |

3. Suggested action

3.1 The Meeting is invited to:

- a) review the status and lessons learned from the “visual to PBN” Project experience in the SAM Region; and
- b) approve the Project Proposal for conducting an enhanced experience in the CAR Region