



**Agenda Item 2: Optimization of the SAM airspace**

**a) PBN regional implementation**

**ORGANIZATION OF INSTRUMENT FLIGHT PROCEDURES DESIGN SERVICES**

(Presented by Secretariat)

**SUMMARY**

This Working Paper presents results of the seminar on Organization of Flight procedures design services (IFPDS), in which SAM experts analyzed the challenges of the Region to implement sustainable IFPD services, with emphasis on quality management and safety.

**1. Introduction**

1.1 The Seminar on the organisation of instrument flight procedure design services (IFPDS) was held on 8-12 April, with the support of Regional Project RLA/06/901 - “Assistance for the implementation of a regional ATM system based on the ATM operational concept and the corresponding technological support in CNS”, in response to the needs of the GREPECAS Performance-based navigation (PBN) implementation programme and the Regional PBN action plan.

1.2 Fifteen experts of nine States participated, together with two experts from Austral and Aerolineas Argentinas respectively. The participants came from different backgrounds: airspace planning, instrument approach procedure design, airline pilots and technicians/operational engineers, and air navigation inspectors.

1.3 The workshop comprised 15 sessions in which the topic was presented and discussed. Each session included feedback, with examples of best practices and reference cases. The topics covered during the seminar are presented in the material and slides posted on:

[https://www.icao.int/SAM/Pages/ES/MeetingsDocumentation\\_ES.aspx?m=2019-06901-IFPD](https://www.icao.int/SAM/Pages/ES/MeetingsDocumentation_ES.aspx?m=2019-06901-IFPD)

**2. Analysis**

2.1 During the last five years, significant progress has been made in the SAM Region in the implementation of PBN in TMA and approach segments, based on the availability of designers, training programmes and facilities (design software, cooperation with airlines, simulators, etc.) in the States. However, note was taken of the need to take a new approach to service development, not only based on staff availability, but also on IFPDS organisation and compliance with ICAO quality and safety requirements.

2.2 The process of PBN implementation in South America was activated in 2008 and was pushed by Declaration of Bogota in 2013, however, the seminar noted that this new regional approach must ensure the sustainability of PBN implementation in the States. That is, there is a need to review flight procedures every 5 years at the most, and to maintain procedures on an on-going basis, among other quality management and continuous improvement requirements set forth in Doc 9906 and Doc 8168.

2.3 The Seminar noted that ICAO had completed the publication of technical guides for the development of the IFPDS and the implementation of quality management systems in these services. In this regard, there was a need to explore the establishment of a second stage of drafting of regional material, which could involve a review of LAR 211 and/or its appendix 7, or a regional manual exclusively for IFPDS containing rules for the organisation of these services and QMS and SMS implementation aspects. In this regard, a request was made to include technical guidance to calculate the proper staffing of IFPD providers, or to categorise providers according to the number and complexity of the instrument flight procedures they develop, maintain and review within their annual programme of activities.

2.4 The Seminar analyzed the practices developed in the Region by regulators and/or civil aviation authorities for the oversight of their IFPDS providers, and agreed that the approval of flight procedure designs should not imply a revision or “reverse engineering” of the IFP, since that would mean duplication of efforts. Accordingly, oversight must be primarily geared towards the quality processes of the provider, compliance with construction and design criteria, and compliance with State regulations.

2.5 In this sense, the Air Navigation Inspector Manual supplied by the SRVSOP has not yet fully covered IFPDS oversight aspects, and there is a need to continue these activities in the short term. This action will result in improved effective implementation of Annex 11 SARPs, and fulfilment of the respective PQs.

2.6 Note was taken of the scarce annual availability of (basic-advanced – recurrent) PANS OPS courses in the SAM Region. However, there is the option of ICCAE - COCESNA in El Salvador (CAR Region). The seminar requested the support of the Secretariat to publicise the delivery of PANS OPS courses in South America. Likewise, the request was made to explore the existence of PANS OPS refresher courses and/or recurrent training courses within the scope of Project RLA/06/901.

2.7 The importance to continue strengthening collaboration with the industry, the airlines and airspace users was highlighted. The phases involved in the flight procedure design process show a clear interdependence between stakeholders and FPDS. Among other things, cooperation for the validation of procedures (in the applicable modality) and continuous maintenance tasks is extremely important.

2.8 The seminar showed interest in the cooperation being developed between States in Africa, Asia-Pacific and, very soon, in the Middle East, whereby a regional programme provides PANS OPS training (including OJT), assistance for IFP design and technical advice on quality implementation of IFP services. In this regard, the request was made to continue studying the possibility of implementing and developing similar programmes for the SAM Region under Project RLA/06/901.

3. **Suggested action**

3.1 States are urged to analyze this paper and:

- a) give notions about the current status of IFPD services,
- b) define actions regarding training and/or PANS OPS courses,
- c) analyze the needs of IFPDS quality management and safety, and
- d) explore the feasibility of a Regional program for strengthening of IFPD services and support capabilities PANS OPS.

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