

## SUMMARY

### **RLA/06/901 – Seminar on the organisation of Instrument Flight Procedure Design Services (IFPDS) (Lima, Peru, 8-12 April 2019)**

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.
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.
3. The seminar was conducted by Mr. Fernando Hermoza Hübner, ICAO Regional ATM/SAR Officer. The list of participants appears at the end of the summary.
4. 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.
5. The speakers were:
  - Mr. Diego Gamboa, TLA pilot and PANS OPS expert, EANA-Argentina.
  - Mr. Tomas Macedo, ATS/PANS OPS expert, CORPAC-Peru.
  - Mr. Fernando Hermoza Hübner, ICAO Regional ATM /SAR officer.
6. The topics covered during the seminar are described below, as 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)

Session 1.- Workshop overview: The Secretariat presented a summary of the scope and objectives of the workshop, and expressed its interest in everyone’s feedback and participation. The participants introduced themselves.

Session 2.- Regional and global scenario for IFPD services: PBN implementation statistics were analysed, together with the results of the USOAP audit of PANS OPS PQs, all at regional and global level. The scenario shows that great progress was made in PBN implementation, which reveals the capacity of States to design and publish IFPDS. However, USOAP PQs on quality and training aspects of States still need to be improved.

Session 3.- A review was made of available ICAO documentation for flight procedure design and the evolution of ICAO activities in the last few years.

Session 4.- Quality requirements contained in Doc 8168 – PANS OPS, Vol. II, were presented, amongst other design requirements.

Session 5.- An analysis was made of Doc 9906, Volume I, which contains a technical guide for QMS implementation in flight procedure design activities. The 16 phases of the IFP procedure development process were presented.

Session 6.- Doc 9906, Volume II, concerning an integrated training programme for flight procedure design staff, was discussed. The availability of courses in the Region was analysed.

Session 7.- The following volumes of Doc 9906 were addressed:

- Volume 3 — Flight procedure design software validation;
- Volume 5 — Validation of instrument flight procedures; and
- Volume 6 — Flight validation pilot training and evaluation

Session 8.- Doc 10068 was presented in relation to a regulatory framework for the oversight of IFPD service providers.

Session 9.- Doc 10068 was analysed in relation to the organisation and functions of an IFPD service provider.

Session 10.- SRVSOP LAR 211, Air traffic services, was reviewed, specifically Appendix 7, dealing with ICAO Annex 11 requirements concerning IFPDS. Opportunities for improvement were identified.

Session 11.- The ANSP of Peru presented the progress made in the organisation of flight procedure design services and their processes.

Session 12.- The ANSP of Argentina presented the progress made in the organisation and processes of flight procedure design services.

Session 13.- A presentation was made of the aeronautical data catalogue, in accordance with the requirements of the new PANS AIM. An explanation was given of the project for the creation of a depository in the SRVSOP website.

Session 14.- A presentation was made of best practices in the APAC Region in relation to a cooperation programme among States called FPP, Flight procedure programme, which provides training, procedure design, advise on IFPDS quality issues, etc. An analysis was made of its advantages and possible application in our Region.

Session 15.- Feedback was provided on the seminar, drawing conclusions and highlighting relevant issues for future implementation in the SAM Region.

## **CONCLUSIONS OF THE SEMINAR**

7. During the last five years, significant progress has been made in the SAM Region in the implementation of PBN in the 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.
8. 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.
9. 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.

10. 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 “reserve 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.
11. 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.
12. 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. The use of webinars was recommended as an effective option.
13. 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.
14. The seminar showed interest in the cooperation modality 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.
15. The participants took note of new PANS-AIM guidance concerning the aeronautical data catalogue and data integrity and accuracy requirements. The advantages of conducting these activities within the AIM units of the States were analysed, since it could improve the availability of data of high quality and integrity as an input for flight procedure design.

## List of Participants

### ARGENTINA

1. Diego Gamboa

### BOLIVIA

2. Maribel Choque Apaza

### COLOMBIA

3. Oscar Hernán Angarita Quiroga

### CHILE

4. Manuel Álvarez

### ECUADOR

5. Christian Ramos Tapia

### PANAMÁ

6. Angel Olmedo
7. Keren Sánchez
8. Ana Teresa Montenegro

### PERÚ

9. Sady Beaumont
10. Eloy Tafur
11. Tomas Macedo Cisneros

### URUGUAY

12. Rosanna Barú
13. Daniel Burgos
14. Miguel Miraballes

### VENEZUELA

15. Pablo Rattia Rodriguez

### IATA

16. Pablo Oscar Gavassa (Aerolineas Argentinas)
17. Sebastián Negro (Austral)

### OACI/ ICAO

18. Fernando Hermoza