



International Civil Aviation Organization

Performance Based Navigation Sub-Group (PBN SG)

First Meeting

(Cairo, Egypt, 1 – 3 April 2014)

Agenda Item 3: Global and Regional Developments related to PBN and GNSS

DEVELOPMENTS RELATED TO PBN CHARTING

(Presented by the Secretariat)

SUMMARY

The aim of this paper is to review the latest global developments on PBN charting and highlights the need for close coordination between PBN and AIM developments related to charting.

Action by the meeting is at paragraph 4.

REFERENCES

- AIS-AIMSG/8-SOD
- AIS-AIMSG/8-SN/14
- AIS-AIMSG Sub-Group Coordination with IFPP/IWG/1-SoD

1. INTRODUCTION

1.1 Aeronautical Information Services to Aeronautical Information Management Study Group (AIS-AIMSG) develops for Amendment 39 to Annex 15 the Aeronautical Data and Information Scope, including for Flight Procedures. This must get input/review from Instrument Flight Procedure Panel Integration Working Group (IFPP/IWG). ICAO provisions for the design of flight procedures are currently outlined in PANS-OPS and guidance material; Publication is according to Annex 4 and Aeronautical Chart Manual (DOC 8697). To support PBN implementation data quality and process requirements for an electronic aeronautical data provision is required by states in order to publish structured data according to performance criteria of Annex 15 and PANS-AIM.

2. DISCUSSION

2.1 The meeting may wish to note that, the First Coordination Meeting between the Aeronautical Information Services-Aeronautical Information Management Study Group (AIS-AIMSG), Sub-Group Coordination with the Instrument Flight Procedure Panel (IFPP), Integration Working Group (IWG- IFPP WG2), was held in Sun City West (Phoenix), USA, 20 to 22 January 2014.

2.2 The joint meeting was organized within the regular IWG Winter Meeting 2014 and based on prior coordination at the AIS-AIMSG/8, Montreal, Canada, 4 to 8 November 2013, the ICAO Secretariat, and IFPP Chairman and Secretary. The engagement of the AIS-AIMSG Sub-Group on Coordination with IFPP/IWG is based on AIS-AIMSG Action agreed 8/9:

Action agreed 8/9 — IFPP/IWG and AIS AIMSG Cooperation

That a sub-group composed of Peter (Rapporteur), James, Charity, Stephane, Arnaud, Bill will prepare

- a) *a working paper with overall concept intended to be implemented with Amendment 38 Annex 15 and PANS-AIM;*
- b) *a working paper with Annex 15 and PANS-AIM text developed so far; and*
- c) *a summary of data features and attributes considered to be part of the Aeronautical data scope for consideration by the IFPP/IWG.*

2.3 AIS-AIMSG Sub-Group Coordination with IFPP/IWG/1 highlighted that amongst other Thematic Data Sets, which the AIS-AIMSG will define to be included in Chapter 5 of Annex 15 and PANS-AIM, and based on the Data Super Set in Chapter 4 of Annex 15 and PANS-AIM, the Instrument Flight Procedure Data (IFPD) Set shall be developed and maintained by the IFPP/IWG, in close cooperation with AIS-AIMSG {or eventual subsequent Study Groups such as the Information Management Panel (IM Panel)}.

2.4 Moreover, during the Ad-Hoc Group on AIM Development Meeting/9 in Friedrichshafen/Meersburg, Germany, 1 to 5 July, 2013, IWG has identified for a long time that data which are needed for developing and working with Instrument Procedure Design Criteria, Flight Procedure Design, Aeronautical/Avionics Databases and Procedure Encoding Rules are more detailed than those currently required to be published by States for their instrument flight procedures publication in the State AIP based on PANS-OPS (Doc 8168), Annex 4, Chapter 11, and Aeronautical Chart Manual (Doc 8697), Chapter 7.11.

2.5 Also the IFPP has recently finalized Procedure Design Criteria and Charting Requirements for publication of RNAV Standard, SBAS, GBAS and Helicopter PINS Instrument Procedures. This requires eventually additional discussion about the Aeronautical Data and Information scope in the frame of Data Sets.

2.6 Instrument Flight Procedure Tools, use already and can provide more detailed data and in this relation the question comes to what extent shall the data scope be extended compared to the current provisions of Annex 4 and Doc 8697 when data sets are established.

3. CONCLUSION

3.1 A further item for discussion with the IWG is the intended establishment of Service 2 in Annex 15, Chapter 6, which would eventually allow that Instrument Approach Charts (IAC) and other instrument charts becoming optional when States are able to provide respective data sets. This option, when materializing, would cause subsequent amendments of Annex 4 SARPs for chart publication.

3.2 The revised Chapter 4 of Annex 15 addresses several types of Data Originator Groups for the Aeronautical Data and Information Scope. One of them is Flight Procedure Design. Currently the main provisions for the content of Flight Procedure Publication are contained in PANS-OPS, Annex 4, and Doc 8697. The Annex 15 and new PANS-AIM might become additional reference material in this Data Origination Process.

4. ACTION BY THE MEETING

4.1 The meeting is invited to:

- a) note the information in this information paper; and
- b) recognize the need for coordination between PBN and AIM developments related to PBN charting.

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