



International Civil Aviation Organization

The Ninth Meeting of the ICAO Asia/Pacific Performance-Based Navigation Task Force (PBN/9)

Bangkok, Thailand, 27-30 March 2012

Agenda Item 2: Review Outcomes of Related Meetings

RELATED MEETING OUTCOMES

(Presented by the Secretariat)

SUMMARY

This paper presents information on meetings outcomes related to the PBN/TF and the status of APANPIRG Conclusions related to the implementation of PBN within the Asia and Pacific (APAC) Regions and provides information on the follow-up actions that have taken place.

This paper relates to –

Strategic Objectives:

- A: *Safety – Enhance global civil aviation safety*
- C: *Environmental Protection and Sustainable Development of Air Transport – Foster harmonized and economically viable development of international civil aviation that does not unduly harm the environment*

Global Plan Initiatives:

- GPI-5 RNAV and RNP (Performance-based navigation)
- GPI-7 Dynamic and flexible ATS route management
- GPI-10 Terminal area design and management
- GPI-11 RNP and RNAV SIDs and STARs
- GPI-12 Functional integration of ground systems with airborne systems
- GPI-21 Navigation systems

1. INTRODUCTION

1.1 The Twenty Second Meeting of the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG/22) was held in Bangkok, Thailand from 5 to 9 September 2011.

1.2 The First Meeting of the ICAO Asia/Pacific Seamless ATM Planning Group (APSAPG/1) was held in Bangkok, Thailand from 31 January to 3 February 2012.

2. DISCUSSION

2.1 As a result of review of the outcome of PBNTF/7 meeting, APANPIRG/22 adopted the following Conclusion:

Conclusion 22/23- Participation in the Asia/Pacific Flight Procedure Programme

That, States in the Asia/Pacific Region be encouraged to take part in the regional cooperative effort to achieve the safety, access, capacity, efficiency and environmental benefits that are possible with PBN implementation, by joining the Asia/Pacific Flight Procedure Programme (FPP).

2.2 Based on a proposal made by Australia, PBNTF/8 proposed to include the minimum requirement of GNSS-enabled area navigation systems for all RNP navigation authorizations in the *Strategy for the Provision of Navigation Services in the Asia/Pacific Region*. This had been reflected in the revised Navigation Strategy proposed by the CNS/MET SG/15 meeting. APANPIRG/22 adopted the following Conclusion to support the requirement projected by PBN Task Force:

Conclusion 22/22 - GNSS minimum requirement for RNP Navigation Specifications

That, GNSS-enabled area navigation systems for all RNP navigation specifications be adopted as minimum requirement in the Asia/Pacific Region.

3.4.14 To encourage participation in the regional RAIM prediction service and to harmonize the operational and technical requirements, APANPIRG/22 adopted the following Conclusion:

Conclusion 22/24 – Regional RAIM Prediction System and Minimum Technical and Operational Requirements

That, the States in the Asia/Pacific Region be encouraged to participate in the Regional RAIM Prediction System and the Minimum Technical and Operational Requirements for Asia/Pacific Regional RAIM Prediction System provided in Appendix F to the Report on Agenda item 3.4 be adopted.

3.4.15 Noting the PBN TF/8 meeting proposal to amend the regional PBN Implementation Plan to include the following elements, APANPIRG/22 adopted the following Conclusion:

Conclusion 22/25 - Regional PBN Plan Amendment

That, the revised Asia/Pacific Regional PBN Implementation Plan Version 3.0 provided in Appendix G to the Report on Agenda Item 3.4 be adopted and published.

3.4.16 The CNS/MET SG/15 meeting was informed about the slow progress of GNSS implementation in the region as a significant outcome of the survey. The meeting agreed that GNSS should be considered for inclusion as an ILS component and invited ICAO to conduct a workshop to address issues identified through survey. The workshop was to be organized in conjunction with a meeting of PBN Task Force. The following Conclusion on the subject was adopted by APANPIRG/22:

Conclusion 22/26 – Workshop on GNSS implementation

That, ICAO be invited to organize a Workshop on GNSS implementation to address issues identified through the GNSS implementation survey conducted in 2010.

2.3 The APSAPG/1 meeting noted there were three main areas which required the development of Seamless ATM principles: People, Facilities, and Technology and Information. Under these headings, a total of 48 draft Seamless ATM Principles were being considered by the APSAPG, including the following related to PBN development:

People**Aviation Regulations, Standards and Procedures**

- a) Harmonised regional or sub-regional rules and guidelines, modelled on the Pacific application of common regulations incorporated by reference into local legislation.
- b) Development of common procedures compatible with Regional Operational Concepts.

Facilities**Navigation Aids**

- a) The continued transition from ground-based aids to satellite-based PBN procedures, while maintaining a necessary redundancy and contingency network.
- b) Support for a GNSS-based, integrated regional PBN approval standard.
- c) Regional cooperation for SBAS in terms of interoperability and increased service areas and a GNSS ionospheric monitoring network.

Technology and Information**Flight Operations**

- a) Support for PBN specifications that include GNSS ‘low end’ aircraft and better spacing for terminal airspace, based on empirical data.
- b) Implementation of UPR and DARP where practical.
- c) Universal implementation of CDO and CCO unless restricted by factors such as terrain, SUA, and noise constraints.

Aeronautical Data

- d) Early implementation of AIM (including SWIM) for advanced States.
- e) Cooperative development and use of aeronautical databases such as the European Aeronautical Database (EAD).
- f) Regulation of aeronautical data and its quality, to ensure interoperable operations.

ATM Modernisation Projects

- g) Inter-regional cooperation between ATM modernisation projects.
- h) A focus on simpler universal technologies for earliest deployment and best cost benefits, using a staged implementation.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this paper; and
- b) discuss any relevant matters as appropriate.

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