



ICAO

*International Civil Aviation Organization***Twenty Eighth Meeting of the Communications/
Navigation and Surveillance Sub-group (CNS SG/28)
of APANPIRG***Bangkok, Thailand, 1 July – 5 July 2024***Agenda Item 6:** Navigation

- 6.1 Review Report of the Tenth Meeting of Performance based Navigation
Implementation Coordination Group (PBNICG/10)

**REVIEW REPORT OF THE ELEVENTH MEETING OF PERFORMANCE BASED
NAVIGATION IMPLEMENTATION COORDINATION GROUP (PBNICG/11)**

(Presented by the Secretariat)

SUMMARY

This paper provides information on the outcomes of the PBNICG/11 held in Bangkok from 27-29 March 2024 for the review by the meeting.

1. INTRODUCTION

1.1 The Eleventh Meeting of the Performance Based Navigation Implementation Coordination Group (PBNICG/11) was held in Bangkok from 27-29 March 2024. A workshop on the oversight of Instrument Flight Procedures (IFPs) was also held in conjunction with PBNICG/11 to strengthen the IFPs oversight function in the APAC States in view of several Significant Safety Concerns(SSCs) raised in the world due to IFPs not meeting the quality assurance requirements. The meeting was attended by 77 participants from the States, Administration, IATA, IFPDVA and ICAO. The relevant presentations and documents are available at the following link: <https://www.icao.int/APAC/Meetings/Pages/2024-PBNICG11.aspx>.

2. DISCUSSION**2.1 The meeting deliberated on the following main Agenda Items:**

Agenda Item 1: Adoption of Agenda

Agenda Item 2: Global and Regional PBN Updates

Agenda Item 3: Implementation Status of the Regional Transition Plan for RNP APCH Chart Identification from RNAV to RNP

Agenda Item 4: States' PBN Implementation Progress

Agenda Item 5: Performance Based Aerodrome Operating Minima (PBAOM)

Agenda Item 6: Proposed revision of PBN Elements in Seamless ANS plan.

2.2 Agenda item2: Global and Regional PBN updates

2.2.1 ICAO presented global and regional PBN implementation status as available in ICAO iSTARS. ICAO informed that implementation of APV procedures for all instrument runway ends by 2016, key requirement of ICAO Assembly Resolution A37-11, was behind global achievement. However, implementation of PBN SID/STAR were above the global implementation status (see **Charts 1**).

Charts 1. PBN (Approach) Update, as of January 2024(as per iSTARS)

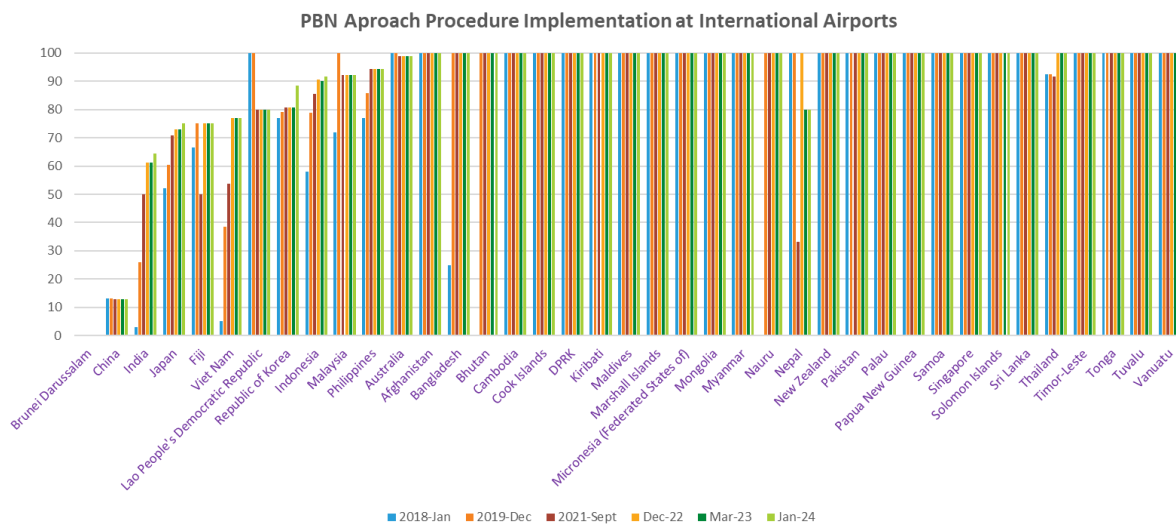


Chart 2. PBN STAR Update, as of Jan 2024(as per iSTARS)

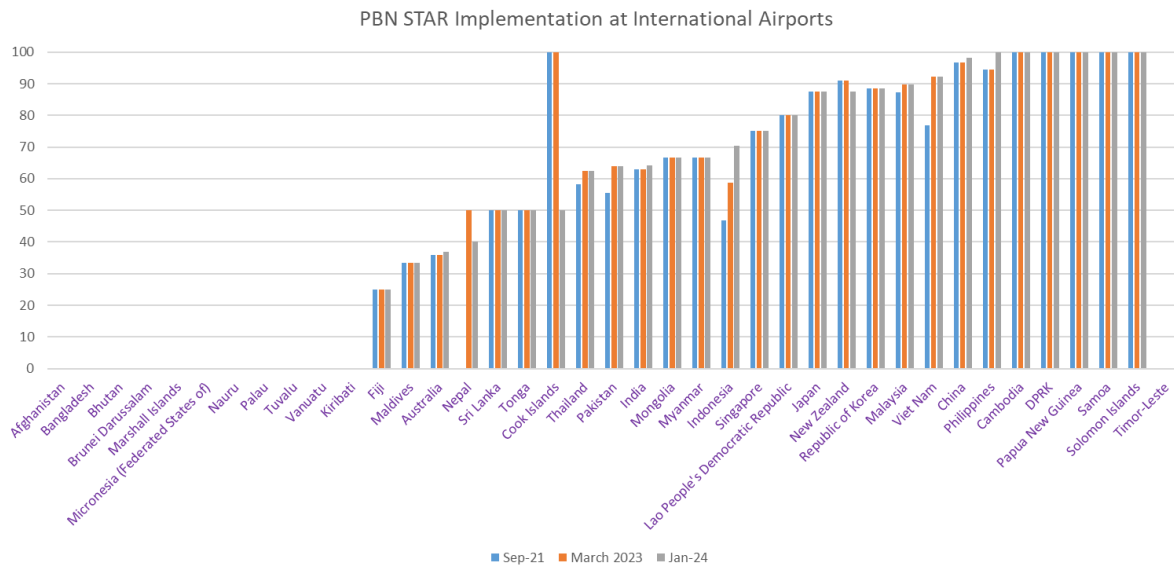
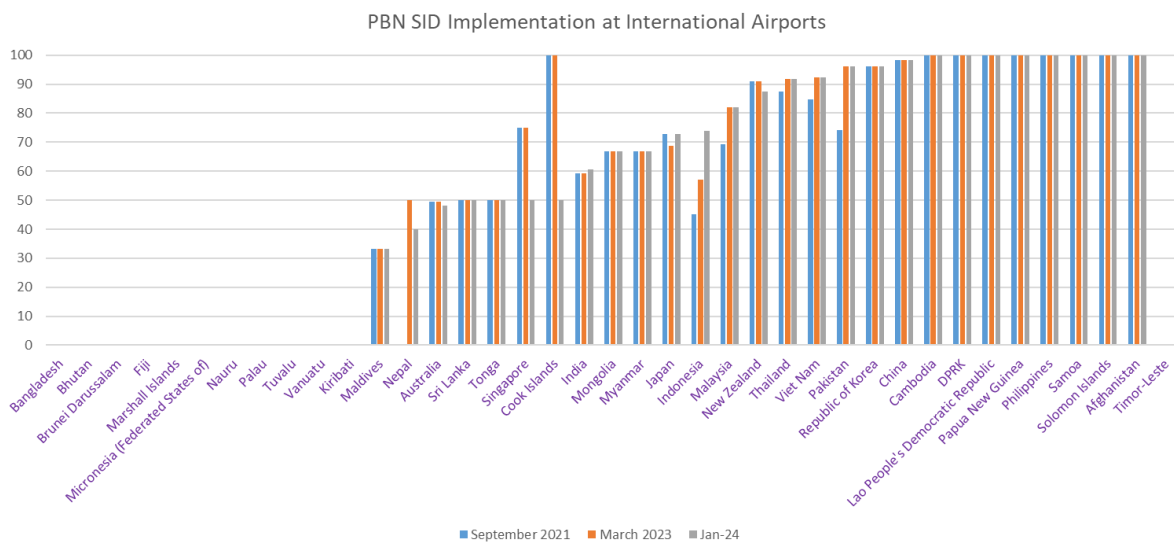


Chart 3. PBN SID Update, as of Jan 2024(as per iSTARS)



2.2.2 ICAO Recommendations and Guidance on GNSS Vulnerability (Secretariat)

The Secretariat presented an overview of ICAO's Recommendations and Guidance on Global Navigation Satellite System (GNSS) vulnerability, including the Resolution COM5/5 (WRC-23), ongoing work in NSP and regional efforts in APAC.

2.2.3 ICAO Doc 9849 GNSS Manual Update (Secretariat)

The Secretariat presented the latest updates on DOC 9849, GNSS Manual. It was pointed out that the Manual updates addressed changes required to support the recent SARPs changes and outdated significant material within the current GNSS Manual.

2.2.4 Safety Issues related to Altimeter Setting in BARO-VNAV Approaches (Secretariat)

The Secretariat outlined the risks related to altimeter setting errors during APV Baro-VNAV and non-precision approach operations and presented possible measures to mitigate altimeter setting errors.

2.2.5 Workshop on Oversight of IFPs

In view of several SSCs raised during USOAP in some States in the world due to IFPs not meeting the standard, a Workshop was organized from 25-26 March 2024 back-to-back with PBNICG/11 to strengthen the oversight function of IFPs in the States to preempt any potential SSCs in the region on account of IFPs. The objective of the workshop was to:

- Explain the requirements of effective oversight of IFPs on design, validation, approval & maintenance.
- Present tools and best practices for the development of a strong oversight of IFPs to ensure the quality assurance requirements are fully met.
- Illustrate processes to evolve effective implementation framework in CAAs for oversight of IFPs.

Target audience of the workshop was CAA personnel engaged in approval and oversight of IFPs so that they are well versed in the regulatory requirement on this aspect. This was the first of its kind in ICAO and was attended by 77 participants from States.

2.3 Agenda Item 3: Implementation status of the Regional Transition Plan for RNP APCH Chart Identification from RNAV to RNP

2.3.1 The Secretariat presented the Implementation status of the regional transition plan for RNP APCH chart identification from RNAV to RNP, Asia/Pacific Regional Transition Plan for RNP APCH Chart Identification from RNAV to RNP as adopted by APANPIRG/30 vide Conclusion APANPIRG/30/14 (CNS SG/23/8-PBNICG/6/1). Most of the States have already completed the transition and a few States are on track as per the plan. The Secretariat reminded the States about target date as November 2022 for RNP transition. The plan is available at the following link on ICAO APAC webpage: <https://www.icao.int/APAC/Documents/edocs/APX.%20B%20-%20Regional%20Transition%20Plan%20for%20RNP%20Chart%20Identification.pdf>.

2.4 Agenda Item 4: States' PBN Implementation Progress

2.4.1 Australia, China, India, Indonesia, Japan, Malaysia, Nepal and PNG presented PBN Implementation status in their States.

2.4.2 Australia presented an overview of issues encountered when implementing RNP separation standards across FIR boundaries, within the framework of APAC plans. Considerations for the improvement of seamless RNP separation including review of RNP designation requirements, the provision to States of more information on RNP designation and changes to RNP separation standards (ICAO Doc 4444) to accept other means of compliance. The meeting after discussion agreed to forward the paper to CNS SG and ATM SG to deliberate on the issues raised in the paper and to provide guidance to review the application of RNP separation within Doc 4444 PANS-ATM to include transition from RNP routes or airspace to other route or airspace to improve the seamless nature of boundaries.

<p>Draft Conclusion PBNICG/11-01: To refer the WP 07 submitted by Australia to CNS SG & ATM SG</p>

What: To refer the WP 07 submitted by Australia to CNS SG & ATM SG for deliberation on the issues raised in the paper and to provide guidance.		Expected impact: <input type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical
Why: For guidance on the issues raised in the paper as it involves CNS as well as ATM sections.	Follow-up: <input checked="" type="checkbox"/> Required from States	
When: 28-Mar-24	Status: Draft to be adopted by Subgroup	
Who: <input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other:		

2.5 Agenda 5: Performance Based Aerodrome Operating Minima (PBAOM)

2.5.1 The Secretariat discussed Performance Based Aerodrome Operating Minima (PBAOM), which is one of the ASBU elements listed as a priority task in APAC Seamless ANS plan and shared the draft CONOPS developed by FLTOPS panel. The Secretariat further informed the meeting that the draft CONOPS has been sent to various panels for comments.

2.6 Agenda Item 6: Proposed revision of PBN elements in APAC Seamless ANS plan

2.6.1 The secretariat introduced to the meeting the proposed changes in the PBN elements of Seamless ANS plan in order to align with the latest GANP and PBN Manual. After deliberations in the meeting the proposed revision of PBN elements in the Seamless ANS plan was adopted with some minor amendments.

Draft Conclusion PBNICG/11/02 - Proposed Revision in PBN Elements of Seamless ANS Plan V3.0		
What: Proposed Revision in PBN Elements of Seamless Ans Plan V3.0 as per Appendix A of the report.		Expected impact: <input type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical
Why: PBN Elements in Seamless ANS Plan need to be revised to align with 7 th edition of GANP & fifth edition of PBN Manual.	Follow-up: <input type="checkbox"/> Required from States	

2.7 Agenda 7 – Any Other Business

2.7.1 Authorizations for PBN operations – IATA

IATA presented a proposal to simplify and standardize authorizations and FPL notations for PBN capabilities and their related interpretations. After several rounds of deliberations, the meeting reached agreement on the following decision: PBNICG supports simplification and standardization of the interpretation and application for PBN operational authorizations/approvals in line with ICAO provisions.

Draft Conclusion PBNICG/11-03: PBN Operational Authorizations/Approvals	
What: That PBNICG supports simplification and standardization of the interpretation and application for PBN operational authorizations/approvals in line with ICAO provisions.	Expected impact: <input type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical
Why: Simplification and standardization of the interpretation and application for PBN operational authorizations.	Follow-up: <input checked="" type="checkbox"/> Required from States
When: 29-Mar-24	Status: Draft to be adopted by Subgroup
Who: <input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other:	

2.7.2 Smart Procedure Validation – IFPDAVA

IFPDAVA presented the smart validation concept. First the difference of layout in the process flow of Doc 9906 Volume 5 Edition 1 and Edition 2 was shown. Thereafter the individual steps of the validation process were explained. It was highlighted that the word ground validation will be removed in Edition 2. Also, it was indicated that simulator flight validation and aircraft flight validation each have their own benefits. With some IFP examples various validation options were highlighted.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) Note the information contained in this paper;
- b) Consider the endorsement of the report, and
- c) Discuss any relevant matters as appropriate.
