



ICAO

International Civil Aviation Organization

**Twenty Sixth Meeting of the Communications/
Navigation and Surveillance Sub-group (CNS SG/26) of
APANPIRG**

Video Tele-Conference, 5 – 9 September 2022

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- Agenda Item 9:** Review and updates
- 9.4 Beijing Declaration implementation related to CNS

BEIJING DECLARATION IMPLEMENTATION IN CNS

(Presented by the Secretariat)

SUMMARY

Through the adoption of the Beijing Declaration at the first APAC Ministerial Conference on Civil Aviation in January 2018, all the Delegations committed to improve the Aviation Safety and Air Navigation Services. This paper is giving information on the current implementation status of the States' commitments in the APAC region.

1. INTRODUCTION

1.1 Gathering at the first ICAO's APAC Ministerial Conference on Civil Aviation in Beijing in January 2018, the Ministers in charge of civil aviation representing 36 governments endorsed the Beijing Declaration formalizing their shared commitments on high-priority aviation safety and efficiency objectives. They agreed to pursue cooperative progress on objectives relating to aviation safety oversight, State Safety Programme (SSP) implementation, airport certification, independence of accident investigation authority, the timely implementation of the Asia/Pacific Seamless Air Traffic Management Plan, and the sharing of information and best practices for air navigation and search and rescue services. It is important to recall that most of the commitments of the Beijing Declaration are due for the end of 2022.

1.2 The Beijing Declaration can help the Civil Aviation Authority to make its Minister well aware of the current challenges and needs in human resources and funding. It also demonstrates High level commitment to public, industry and investors and can be used as benchmark with other States.

1.3 This paper is proposing to review the current implementation status of the APAC States' commitments in CNS. Each commitment with the associated target will first be recalled. Then the way to measure the implementation progress will be defined and results will be provided. A short analysis will then follow to invite States to focus their efforts.

1.4 All the data used in this paper are the ones available in May 2022.

2. DISCUSSION

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2.1 The Ministers' commitment to Air Navigation services defined in Beijing Declaration are as follows:

2.1.1 Commit to implementation by 2022 of the Asia/Pacific Seamless Air Traffic Management (ATM) Plan to enhance ATM capacity and harmonisation in the Region, including a focus on:

- (a) Transitioning from Aeronautical Information Service (AIS) to Aeronautical Information Management (AIM) System;
- (b) Performance Based Navigation (PBN) implementation;
- (c) Common ground/ground telecommunication infrastructure to support Air Navigation Services (ANS) applications;
- (d) An enhanced level of civil/military cooperation;
- (e) Enhanced surveillance capability including Automatic Dependent Surveillance-Broadcast (ADS-B) technology;
- (f) Air Traffic Flow Management/Collaborative Decision Making (CDM) implementation for high density airports; and
- (g) Air navigation in national planning frameworks such as National Development Plans (NDPs) supported by National Air Navigation Plans.

2.1.2 Promote sharing of best practices in the provision of ANS including Aeronautical Search and Rescue (SAR), Meteorological Services for International Air Navigation (MET) and Air Traffic Flow Management (ATFM) through regional cooperation and enhanced coordination.

2.2 The current status of commitments related to CNS Implementation in the field of Air Navigation Services highlighted in blue font above are provided below.

2.3 Performance Based Navigation (PBN)

Commitment: "Commit to implementation by 2022: PBN implementation"

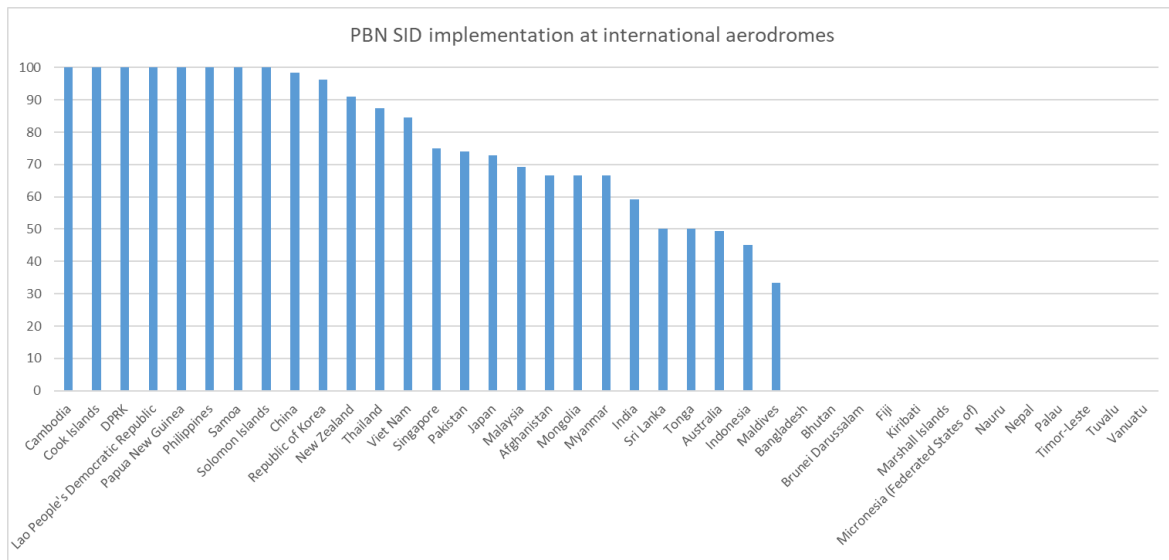
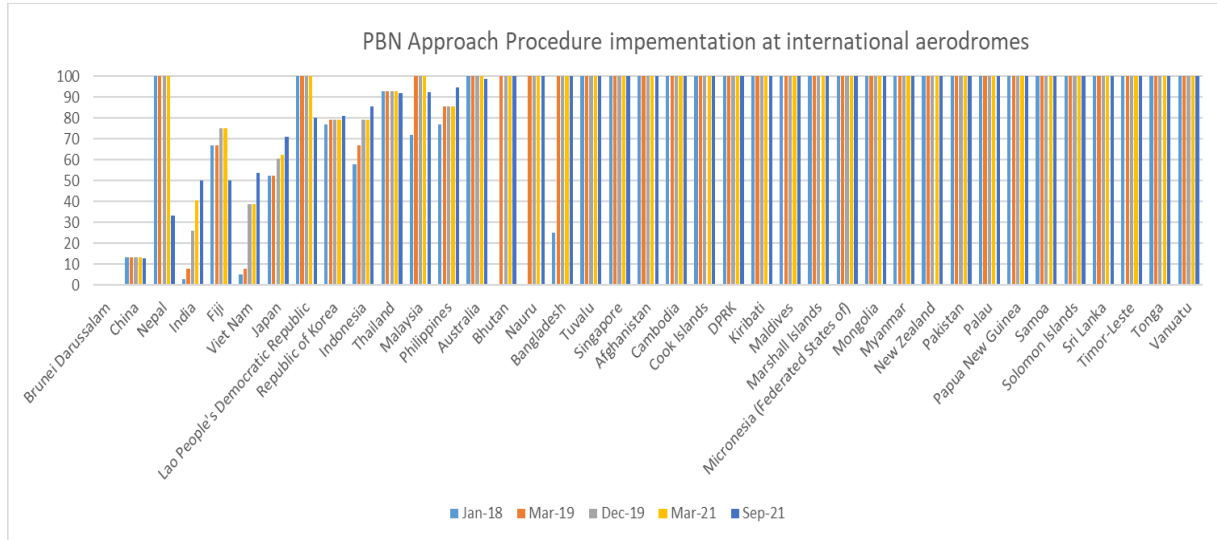
Indicators :

1. Percentage of PBN Approach procedures on international runway ends.
2. Percentage of PBN SIDs/STARs on international runway ends.

Note: The Assembly Resolution A37-11 requests PBN Approach procedures and SIDs/STARs to be implemented on all IFR runway ends (both international and national) by 2016. As the Secretariat cannot get the data for all the national aerodromes in APAC, it was decided to only display the information for international aerodromes.

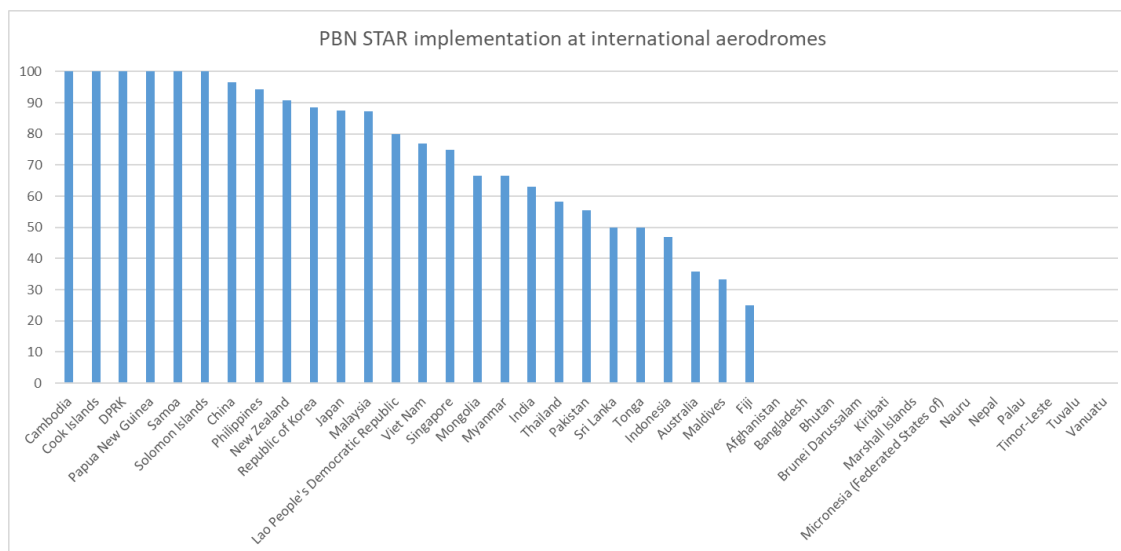
Source: iSTARS and Jeppesen (Jan 2018, Mar 2019, Dec 2019, Mar 2021, Sep 2021). The list of aerodromes in iSTARS has been updated in 2020 as per the APAC Air Navigation Plan (ANP); this has resulted in lower implementation percentage for some States.

Current implementation:



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Analysis: The low percentage of PBN Approach procedures on international aerodromes in some States can be explained by the fact that the ILS Cat I is the main navigation system for landing and no PBN procedures have been published as a backup yet. In addition, delays in PBN procedure approval, lack of resources and competency of procedure designers may be some reasons to explain some low PBN implementation status.

States should continue their efforts to use PBN for Approach procedure, arrival/departure procedures and ATS routes to harvest the optimum benefits from this technology, which may result in reduction of operating costs due to probable rationalization of navigation aids.

2.4 Ground telecommunication infrastructure

Commitment: “Commit to implementation by 2022: Common ground/ground telecommunication infrastructure to support ANS applications”

Indicator: Status of connection to Common Aeronautical VPN (CRV) and Aeronautical Message Handling System (AMHS) with File Transfer Body Parts (FTBP) function for IWXXM data

Source: CNS Meeting

Current implementation:

- 14 States/Administrations (compared to 11 last year) have joined CRV and implemented operations: Australia, Bhutan, China, Hong Kong China, Fiji, Japan, Malaysia, New Zealand, Philippines, PNG, Republic of Korea, Thailand, Singapore and USA. 4 States/Administrations namely India, Indonesia, Nepal, and Sri Lanka have joined CRV, while installation is in progress.
- 28 States/Administrations have implemented AMHS.

Analysis: Needs to keep legacy circuits and CRV during initial period of transition would cost more. Additional 3 States (France-New Caledonia and Polynesia, Maldives and Mongolia) have plan to join CRV. 3 States/Administrations, namely Brunei, Maldives, and PNG, are in process to implement AMHS.

2.5 Surveillance capability

Commitment: “Commit to implementation by 2022: Enhanced surveillance capability including ADS- B technology”

Indicator: Number of States providing ADS-B based surveillance service either for separation or situation awareness

Source: Seamless ATM reporting, SURICG

Current implementation & analysis: 31 States/Administrations installed ADS-B ground stations and 12 States issued ADS-B mandate. 8 States (same last year) used ADS-B for separation and others for awareness, gap filling and redundancy.

Few areas for improvement: Abnormal avionics transmission have been observed from time to time; maintenance of ground equipment in some areas is challenging and no regional mandate; ADS-B data sharing among States is progressing slowly; alternate source of ADS-B data is being provided by commercial service provider which needs closely monitoring.

3. ACTION BY THE MEETING

3.1 The Meeting is invited to:

- a) note the information provided in the paper, in particular to recall that most of the commitments of the Beijing Declaration are due for the end of 2022; and
- b) Encourage States to collaborate and rigorously work towards achieving the commitments of the Beijing Declaration.
