# 57th CONFERENCE OF
# DIRECTORS GENERAL OF CIVIL AVIATION
# ASIA AND PACIFIC REGIONS

*Incheon, Republic of Korea*
*4 – 8 July 2022*

AGENDA ITEM 9 :    DECLARATION OF ASIA PACIFIC
MINISTERIAL CONFERENCE ON
CIVIL AVIATION – BEIJING

# WHERE DOES APAC STAND WITH THE BEIJING
# DECLARATION COMMITMENTS?

Presented by the ICAO 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.

**WHERE DOES APAC STAND WITH THE BEIJING DECLARATION COMMITMENTS?**

**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, initially presented at the DGCA56 in Nepal in August 2019, is proposing to review the current implementation status of the APAC States' commitments in the field of Aviation Safety, Air Navigation Services and Accident Investigation. 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**

2.1        **Aviation Safety**

   a) **USOAP Effective Implementation (EI)**

Commitment: "Progressively enhance safety oversight capability to achieve a USOAP EI score higher or equal to the global average by 2022"

Indicator: National Effective Implementation percentage

Source: iSTARS (USOAP Data Tables Implementation Indicators)

Current implementation:

USOAP Effective Implementation in APAC
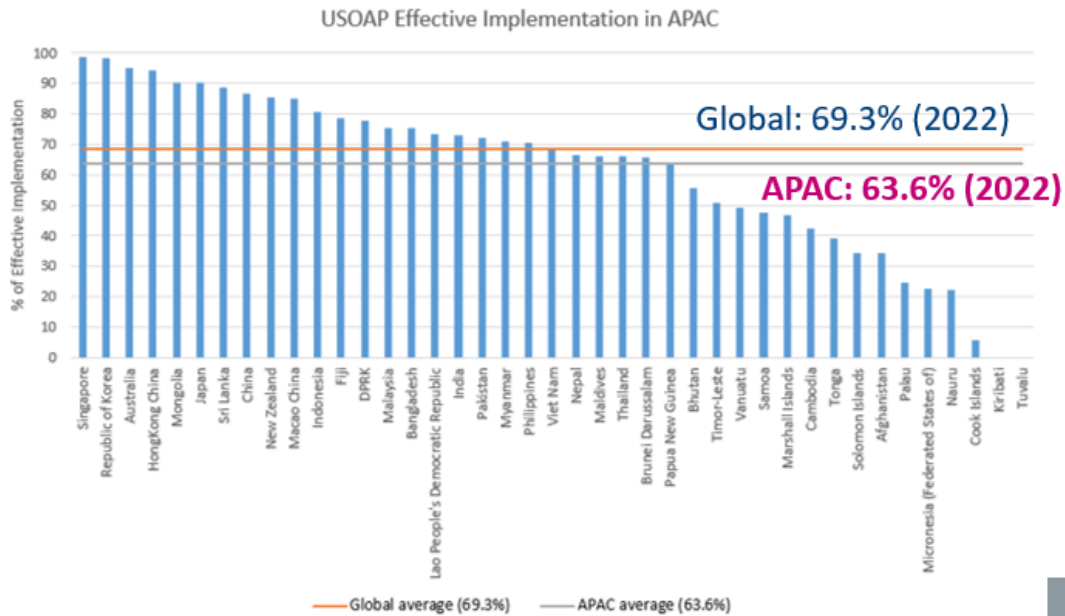
Analysis:

Since June 2019, the Global EI Average has increased from 68% to 69.3%, whereas the APAC EI has increased from 63% to 63.6%. The APAC region is still below the Global average which means that the commitment is not met.

The last recent USOAP audits have shown the following progress:

| State / EI % | Before | After | USOAP conducted | Trend |
|---|---|---|---|---|
| Afghanistan | - | 34.17 | 2019 | ⬆ |
| Tonga | 34.23 | 39.32 | 2019 | ⬆ |
| Fiji | 63.95 | 78.72 | 2019 | ⬆ |
| Malaysia | 74.97 | 75.44 | 2020 | ⬆ |
| Myanmar | 70.67 | 71.06 | 2020 | ⬆ |
| Sri Lanka | 88.4 | 88.7 | 2020 | ⬆ |
| Thailand | 65.87 | 66.12 | 2021 | ⬆ |
| Pakistan | 83.31 | 72.31 | 2021 | ⬇ |

States are reminded to continue their efforts to achieve greater EI score. Special attention should be put on the part of the eight audit areas that have not been recently audited so that to prevent a reduction of the EI score at the next audit.
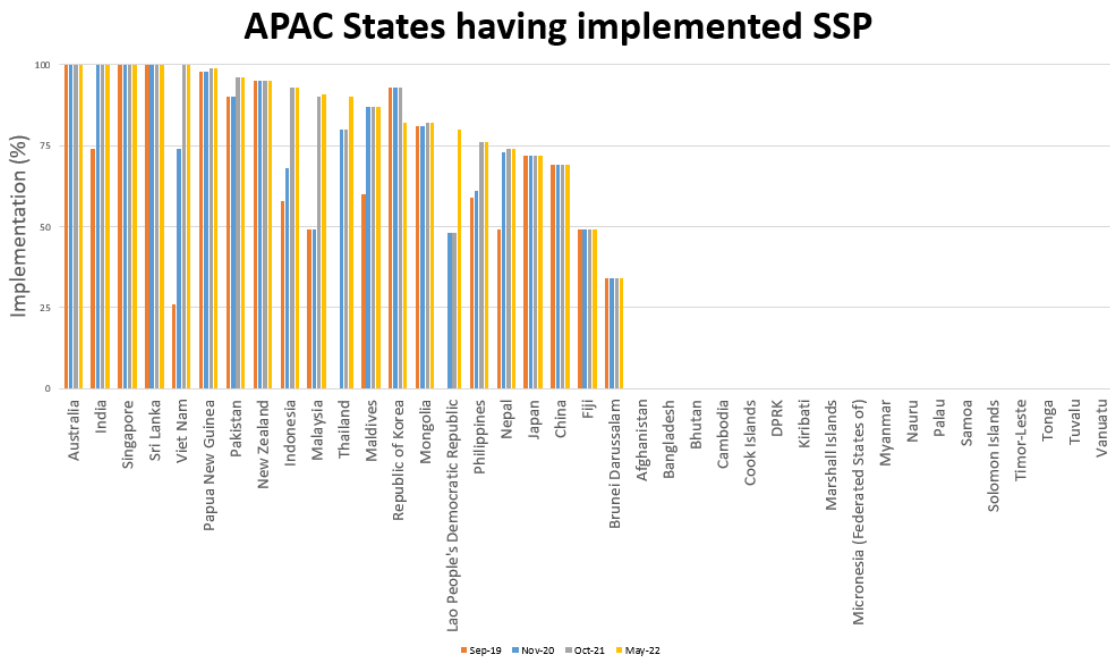
   b)  **State Safety Programme (SSP)**

Commitment: "Implement an effective SSP by 2025"

Indicator: National effective SSP implementation

Source: iSTARS (SSP Gap Analysis - SMM 4th Ed.)

Current implementation:

## APAC States having implemented SSP



Analysis: Five States in APAC have completed their SSP implementation. Sixteen States are progressing on their SSP implementation. The reduction of percentage for Republic of Korea is due to the introduction of a new version of Protocol Questions in 2020. The other States are invited to take actions so that all States have implemented SSP by 2025.

   c)  **Significant Safety Concerns (SSCs)**

Commitment: "Endeavour not to have any Significant Safety Concerns (SSCs) under the USOAP Continuous Monitoring Approach (CMA), and to resolve any future SSCs within the time frame agreed with ICAO"

Current implementation: One APAC State has one SSC in Air Navigation.
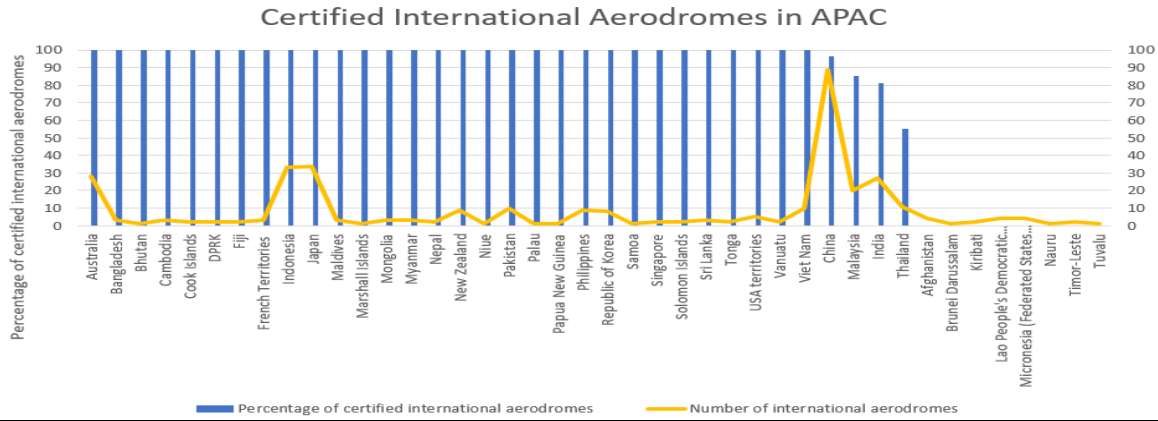
   d)  **Certification of international aerodromes**

Commitment: "Certify all aerodromes used for international operations by 2020"

Indicator: Number of international aerodromes and percentage of certified international aerodromes

Source: Aerodromes Operations and Planning Sub-Group (AOP/SG/5)

Current implementation:

Certified International Aerodromes in APAC

Analysis:

By May 2022, 320 out of 355 aerodromes used for international operations were certified, which corresponds to 90.14 % of aerodromes used for international operations in the Asia & Pacific regions. But only 76 % of these aerodromes are listed in the APAC Air Navigation Plan (ANP). States are encouraged to expedite the certification of international aerodromes as the target date was the end of 2020 and to submit Proposal for Amendment (PfA) to amend APAC ANP.

States in need of technical assistance in aerodrome certification are encouraged to contact ICAO APAC Office or its corresponding COSCAPs and PASO.

**e)  Accident Investigation**

Commitment: "Commit to establish an accident investigation authority that is independent from State aviation authorities and other entities that could interfere with the conduct or objectivity of an investigation or where appropriate develop a bilateral, sub-regional or regional partnership to support the establishment of accident investigation capabilities to serve the region or sub-region."

The inclusion of the following target date has been added into the Asia Pacific Regional Aviation Safety Plan (AP-RASP) 2020-2022: "States should establish an independent aircraft accident and incident investigation authority (AAIIA) as required by Annex 13, as well as related investigation system and procedures by 2022"

Indicator: Independent aircraft accident and incident investigation authority (AAIIA)

Source: RASG-APAC monitoring mechanism and 9th Meeting of the Asia Pacific Accident Investigation Group (APAC-AIG/9 in Oct 2021)

Current implementation:

Independent aircraft accident and incident investigation authority (AAIIA)
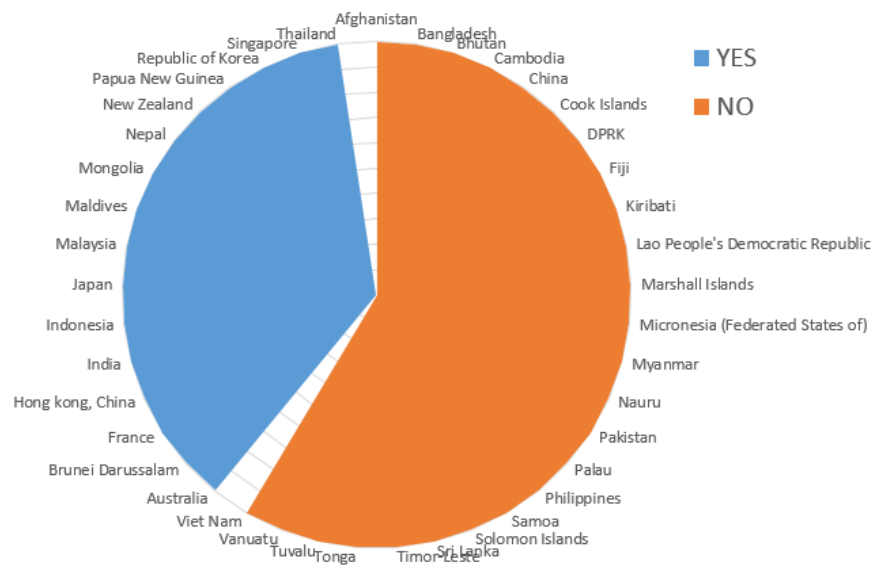


Analysis:

As of May 2022, 40% of APAC States/Administrations have established an independent aircraft accident and incident investigation authority (AAIIA). APAC States/Administrations are reminded to provide, through the RASG-APAC monitoring mechanism, update on their plan and progress pertaining to the establishment of an independent aircraft accident and incident investigation authority (AAIIA) to meet the 2022 target.

2.2        **Air Navigation Services**

a)    **Aeronautical Information Management (AIM)**

Commitment: "Commit to implementation by 2022: Transitioning from AIS to AIM"

Source: Regional AIM Plan Monitoring and Reporting

Current implementation:

The regional performance improvement plan, which forms part of the Asia/Pacific Regional Plan for Collaborative AIM, is divided into three phases:
> Phase I: Consolidation of existing SARPS, expected to be implemented immediately,
> Phase II: Going Digital, expected to be implemented by 7 November 2019, and
> Phase III: Including SWIM-dependent AIM elements, expected to be implemented by 27 November 2025, in accordance with the GANP.

While noting the APANPIRG expectation of implementation by November 2019, the Beijing Declaration objective is to complete Phase I & Phase II by not later than the end of 2022, 100% for all the APAC region.

As of May 2022, the status of Phase I & Phase II implementation is 49%.
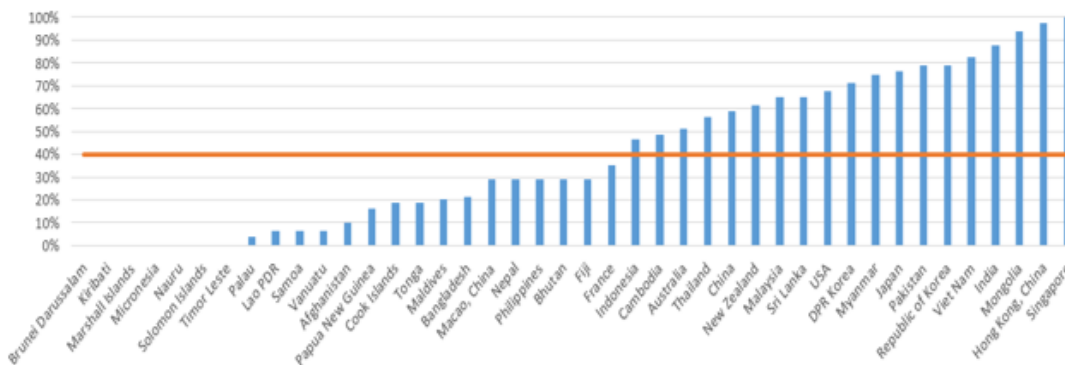
🟢 Phase I (Consolidation existing SARPS)
- immediate implementation
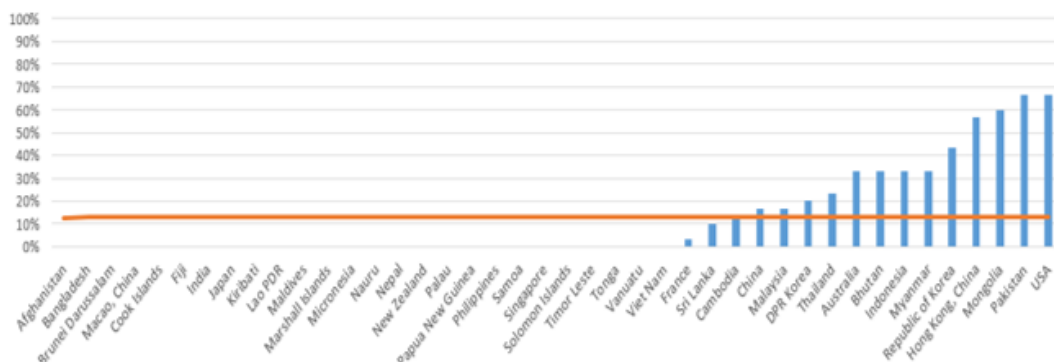- current status = 55 % ( 54% in 2021)
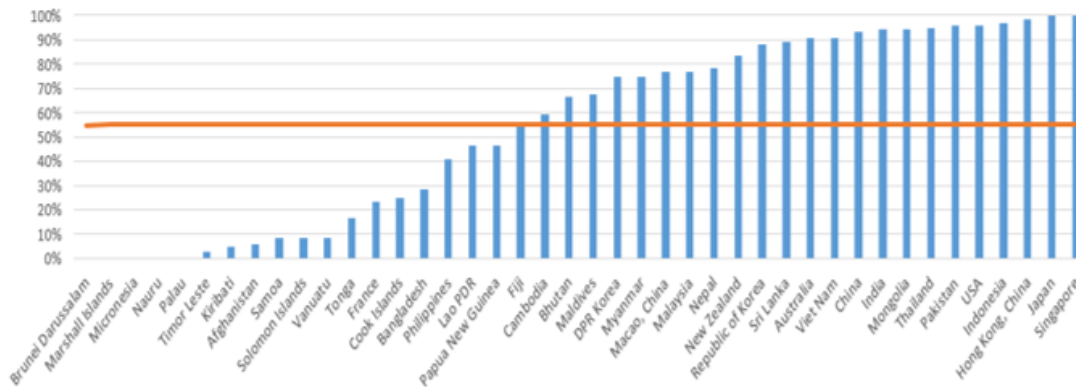


🟢 Phase II (Going Digital)
- target November 2019
- current status = 40 % ( 38% in 2021)

🟢 Overall Phase 1 & 2 = 49% ( 48% in 2021)



🟢 Phase III (including SWIM-dependent AIM)
- Target November 2025
- current status = 13 % ( 12% in 2021)



Analysis: The current situation reflects generally poor implementation of AIM across the APAC Region. Whereas the overall Phase I & II implementation should be all implemented by the end of 2022, today the

current implementation is only 49%. ICAO Regional Office remains very concerned by the widespread lack of State and ANSP organizational understanding of the safety-critical need for robust, quality-managed AIS/AIM implementation.


b)  **Performance Based Navigation (PBN)**

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

Indicators :

1.  Percentage of PBN Approach procedures on international runway ends.

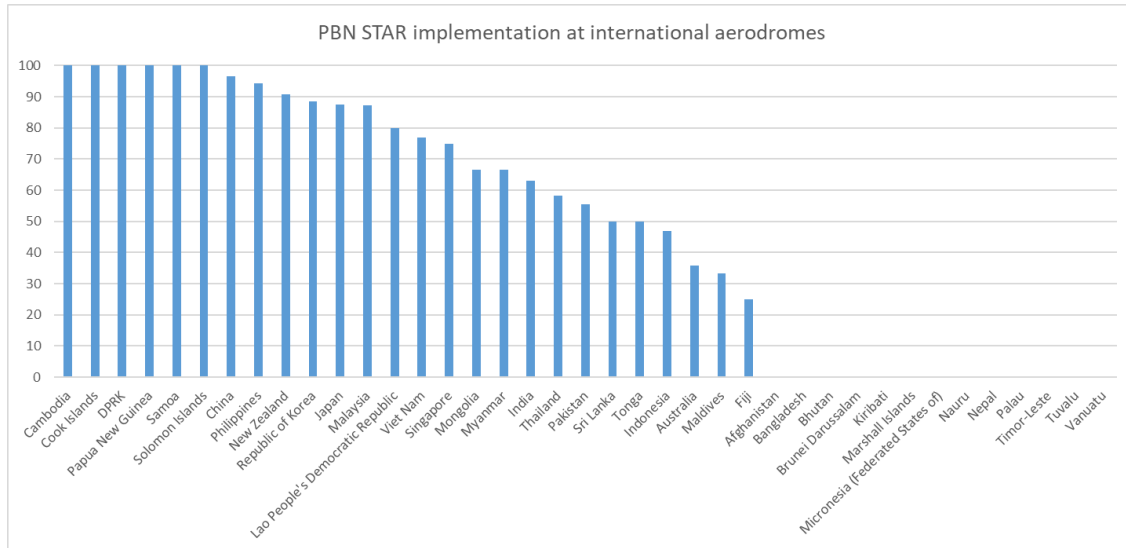2.  Percentage of PBN SIDs/STARs on international runway ends.

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 aerdromes 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:

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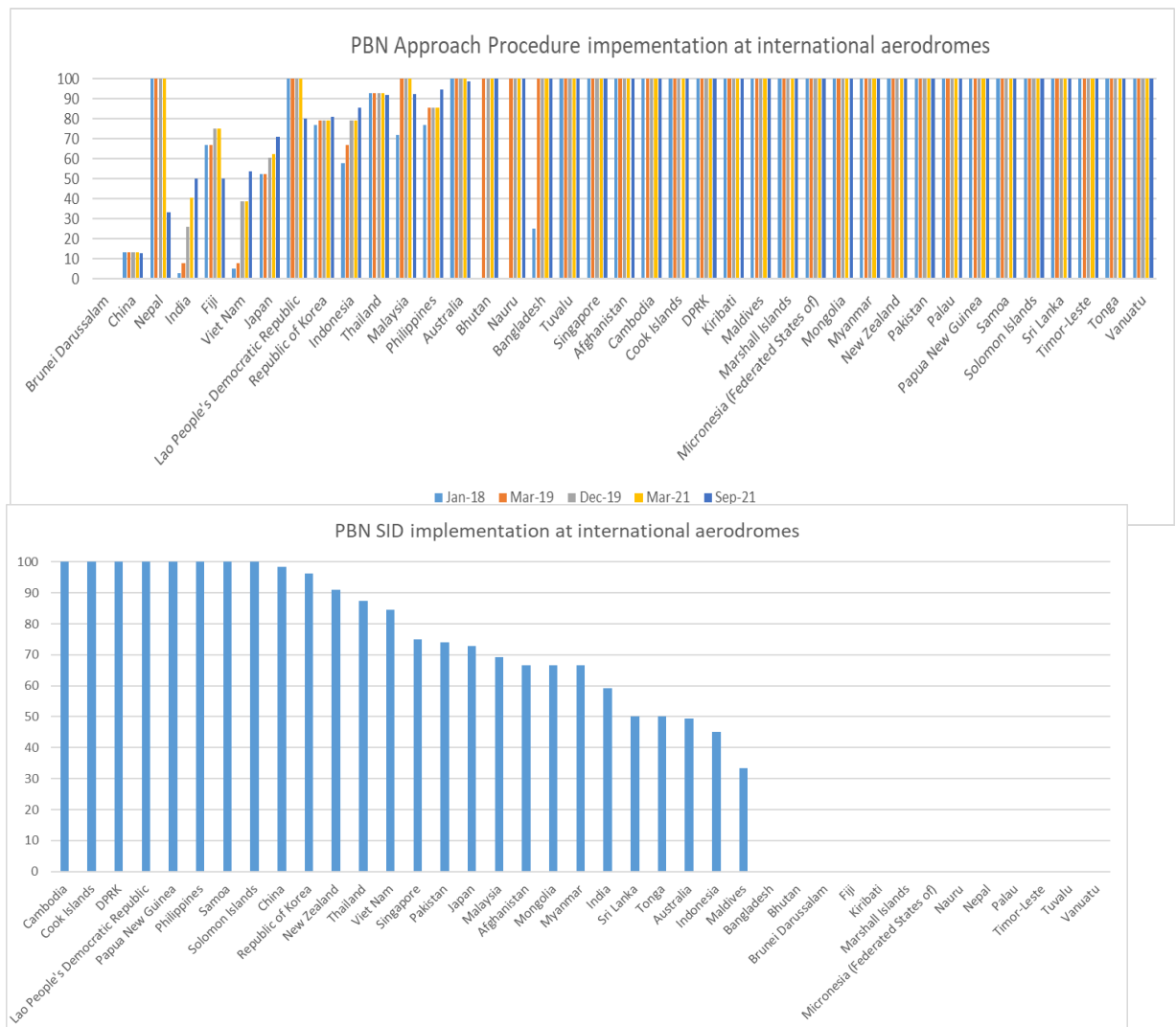
Analysis: The low percentage of PBN Approach procedures on international aerodromes in some States can be explained by the fact that the ILS Cat I is the main navigation system for landing and no PBN procedures have been published as a backup yet. In addition, delays in PBN procedure approval, lack of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

c)  **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.

d)  **Civil Military cooperation**

Commitment: "Commit to implementation by 2022: An enhanced level of civil/military cooperation"

Indicator: Among the ten civil/military elements, Strategic Civil Military coordination and Tactical Civil Military coordination have been put as Priority 1 for the APAC region.

Source: Seamless ATM reporting

Current implementation: Same as in Nov 2020
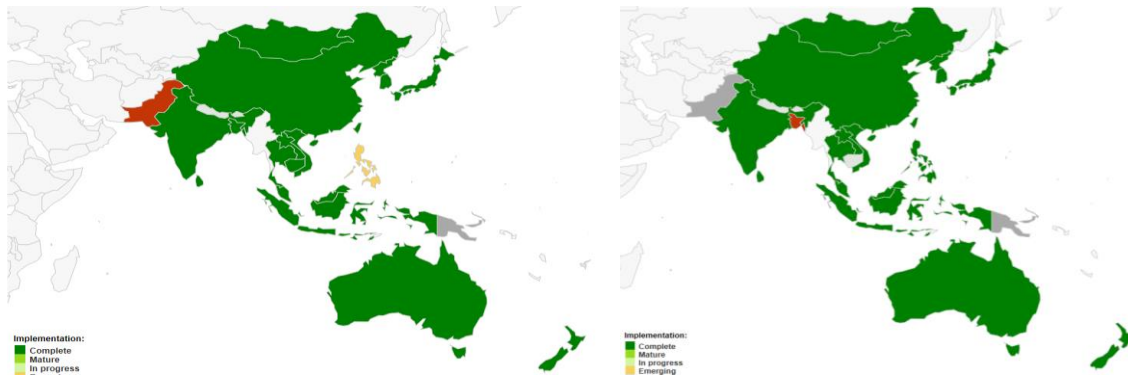


Strategic and Tactical CIV/MIL Implementation Charts

Analysis: Despite most of the States have reported complete implementation of Strategic and Tactical Civil Military, effective implementation being the key, States need to minimize short-notice delays and disruption to civil air traffic. Smooth coordination between civil and military liaison officers needs to be demonstrably effective, so that major delays and disruptions are properly addressed and impacts on other parts of the Asia/Pacific Region are reduced.

Given that lack of civil/military cooperation is a significant factor in the Asia/Pacific's relatively poor ATM efficiency compared to more developed areas of the world, the regional progress is well behind expectation for these elements. Therefore, all States and Administrations are reminded to complete their responses accurately for their own benefits, as much as affected service providers and neighboring States.

e)  **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: iSTARS / Seamless ATM reporting

Current implementation & analysis: 31 States/Administrations (compared to 30 last year) 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.

f)  **Air Traffic Flow Management (ATFM) / Collaborative Decision Making (CDM)**

Commitment: "Commit to implementation by 2022: ATFM/CDM implementation for high density airports"

Indicator: Two indicators have been selected:

➢          Number of international high density airports with Airport-CDM implemented, and

> ➤ High density FIRs and FIRs supporting Major Traffic Flows, and high density aerodromes with ATFM/CDM implemented

Source: Regional ATFM Plan Monitoring and Reporting,

Note: High Density airport = airport with 100,000 scheduled movements per annum or more (Asia/Pacific Seamless ATM plan, V2.0, September 2016)

According to the last version of the Asia/Pacific Seamless ANS Plan, V3.0, November 2019, A-CDM implementation criteria have changed from High Density airports to ALL International airports. ICAO is working on the update of the online reporting facility. New implementation status measured against the new criteria will be reflected in future reports.

Current implementation:



Status of A-CDM Implementation at International High Density Airports in APAC
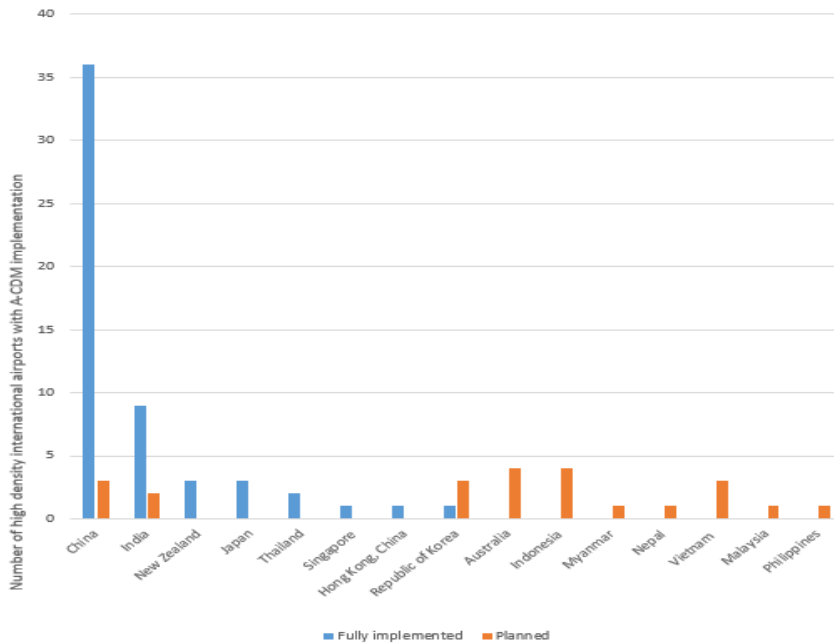


% of High Density FIRs supporting busiest APAC flows and highdensity Aerodromes using ATFM/CDM
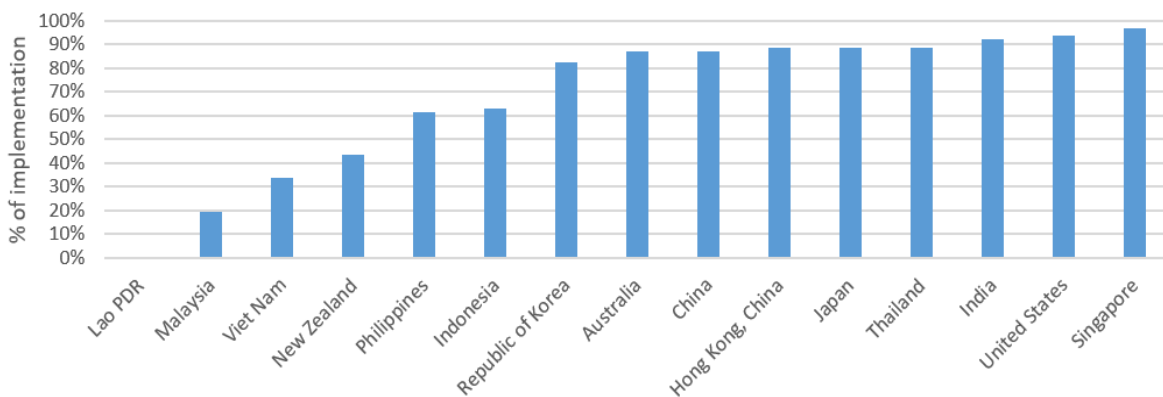
Analysis: Among 73 international high density airports, 56 of them had implemented A-CDM in May 2022. Besides, 23 have planned to implement A-CDM.

ATFM implementation is progressing in APAC but much efforts and collaboration among States are expected. Sub regional ATFM initiatives need to be harmonized to ensure full benefits of ATFM in APAC. While current traffic levels may have eased the immediate requirement for ATFM in some parts of the region, expected resumption of pre-2020 traffic levels and growth will demand increased effort in this area.

g)  **National Air Navigation Plan**

Commitment: "Commit to implementation by 2022: Include air navigation in national planning frameworks such as National Development Plans (NDPs) supported by National Air Navigation Plans."

Indicator: Number of States reporting National Air Navigation Plan (NANP)

Current implementation: Few States have reported to the Regional Office having developed or commenced development of a National Air Navigation Plan (NANP).

Analysis: A NANP template is now available on APAC eDocuments web-page, under the ATM section (Seamless ANS Plan sub-section). States are encouraged to develop their NANP by 2022. ICAO Regional office proposed a NANP reporting form to ATM/SG/9 (November 2021). However, a consensus was not reached due to one State's disagreement, therefore, there is no common reporting form.

**3.      ACTION BY THE CONFERENCE**

3.1            The Conference is invited to:

a)  Note the information contained in the Paper;

b)  Encourage States to expedite the certification of aerodromes used for international operations and not yet certified;

c)  Encourage States to collaborate and rigorously work towards achieving the commitments of the Beijing Declaration.

— END —