INTERNATIONAL CIVIL AVIATION ORGANIZATION

REPORT OF THE THIRD MEETING OF THE SOUTH ASIA, INDIAN OCEAN AND SOUTHEAST ASIA ATM COORDINATION GROUP (SAIOSEACG/3)

BANGKOK THAILAND, 16 – 19 APRIL 2024

The views expressed in this Report should be taken as those of the Meeting and not the Organization

Approved by the Meeting
and published by the ICAO Asia and Pacific Office, Bangkok

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APPENDIXES

INTRODUCTION

Meeting

1.1 The Third Meeting of the South Asia, Indian Ocean and Southeast Asia ATM Coordination Group (SAIOSEACG/3) was held in Bangkok Thailand, from 16 to 19 April 2024.

Attendance

2.1 The meeting was attended by 81 participants from Australia, Bangladesh, China, Hong Kong China, India, Indonesia, Lao PDR, Malaysia, Maldives, Nepal, Pakistan, Philippines, Singapore, Thailand, United States of America, Viet Nam, IATA, IFATCA and ICAO.

2.2 A list of participants is appended in **Appendix A** to this report.

Officers and Regional Office

3.1 Mr. Gabriel Cheng, Chief of Procedures and Evaluation, Air Traffic Management Division, Civil Aviation Department of Hong Kong China, and Mr. Naresh Kumar Chaudhary, General Manager (Air Traffic Management), Directorate of Air Space Management, Airports Authority of India presided over the meeting throughout its duration as Co-Chairs of SAIOSEACG.

3.2 Mr. Xu Zhi Feng and Dr. Hyuk Jin Kwon, Regional Officer Air Traffic Management (ATM), ICAO Asia and Pacific Regional Sub-Office, were the Secretaries for the meeting. They were assisted by Mr. Manjunath Krishna Nelli, Regional Officer ATM/ ATFM, Regional Officer Air Traffic Management ATM and Mr. Vijay Kumar Mishra, Regional Officer (PBN). The meeting was also supported by Mr. Takata Hiroyuki, Regional Officer ATM; Mr. Ying Weng Kit, ATM Officer; Mr. Tak Chuen Chui, Regional Officer ATM/AIM; Mr. Davaasuren Erdenebaatar, Consultant and Ms. Prakayphet Chalayonnawin, Programme Analysis Associate, ATM, of the ICAO Asia/Pacific Regional Office.

Opening of the Meeting

4.1 Mr. Gabriel Cheng and Mr. Naresh Kumar Chaudhary welcomed participants to the meeting.

4.2 On behalf of Mr. Tao Ma, Regional Director of ICAO Asia and Pacific Office, Mr. Xu Zhi Feng also welcomed participants to the meeting.

4.3 **DISCLAIMER:** The presentation of material in this report does not imply the expression of any opinion whatsoever on the part of ICAO, APANPIRG, the ATM Sub-Group of APANPIRG or SAIOSEACG concerning the legal status of any country, territory, city or area of its authorities, or concerning the delimitation of its frontiers or boundaries.

Documentation and Working Language

5.1 The working language of the meeting and all documentation was English. 25 Working Papers (WP), 8 Information Papers (IP) and one presentation were considered by the meeting.

5.2 The list of Working and Information Papers is attached at **Appendix B** to this Report (IP01).

Draft Conclusions, Draft Decisions and Decisions of SAIOSEACG − Definition

6.1 SAIOSEACG recorded their actions in the form of Draft Conclusions, Draft Decisions and Decisions within the following definitions:

a) **Draft Conclusions** deal with matters that, according to APANPIRG terms of reference, require the attention of States, or action by the ICAO in accordance with established procedures;

b) **Draft Decisions** deal with the matters of concern only to APANPIRG and its contributory bodies; and

c) **Decisions** of SAIOSEACG that related solely to matters dealing with the internal working arrangements of these bodies.

List of Decisions and Draft Conclusions/Decisions

7.1 List of Draft Conclusions/Draft Decisions

Nil

7.2 List of Decisions

Nil

REPORT ON AGENDA ITEMS

Agenda Item 1: Adoption of Agenda

Election of Chairperson

1.1 Thailand formally nominated Mr. Naresh Kumar Chaudhary, General Manager (Air Traffic Management), Directorate of Air Space Management, Airports Authority of India, to be the Co-Chair of SAIOSEACG. The nomination was seconded by China and Hong Kong China. As no other nominations were received, Mr. Naresh Kumar Chaudhary was duly elected as the Co-Chair of the Group, and worked alongside the standing Co-Chair, Mr. Gabriel Cheng.

Adoption of Agenda (WP01)

1.2 The provisional agenda for the Meeting (WP01) was adopted by the meeting. The List of Papers (IP01) was noted.

Agenda Item 2: Review of Outcomes of Related Meetings

Relevant Meeting Outcomes (WP02)

2.1 ICAO presented information relevant to the SAIOSEACG/3 meeting from recent ICAO meetings (not including safety matters under the Regional Airspace Safety Monitoring Advisory Group – RASMAG), including the:

- The Thirty-fourth Meeting of the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG/34, held at the Hong Kong China Civil Aviation Department Headquarters Auditorium from 11 to 13 December 2023.)
- The Eleventh Meeting of the Air Traffic Management Subgroup (ATM/SG/11) of th e Asia Pacific Air Navigation Planning and Implementation Regional Group (APAN PIRG) (02 ‑ 06 October 2023, Singapore.) , and
- The Second Meeting of the Asia Pacific Air Navigation Service Provider (ANSP) Committee (AAC/2) (22-23 October 2023, Singapore)

2.2 Other topics that were discussed at the relevant meeting last year such as Air Navigation Service Deficiencies List, Air Navigation Services USOAP Update, Aeronautical Information Management, Search and Rescue and contingency planning, Application of ATC Separation Minimums, Regional Air Navigation Plan Update, Seamless ANS Plan Update, Air Traffic Flow Management Update, Asia/Pacific Region ATS Route Catalogue were provided to this meeting in separate papers.

BOBTFRG Meeting Outcomes (WP03)

2.3 ICAO presented outcomes from the Fifth Meeting of the Bay of Bengal Air Traffic Flow Review Group (BOBTFRG/5, 6 – 8 December 2023) for review and action by the SAIOSEACG.

2.4 The BOBTFRG/5 meeting concentrated on advancing CNS/ATM capabilities and establishing a 30NM Longitudinal Separation across major routes to alleviate congestion in the Bay of

Bengal airspace. It aimed to enhance air traffic flow efficiency and reduce ground delays. It also addressed broader air traffic management concerns, such as ATC separation standards and the need for technological upgrades like ADS-C/CPDLC capabilities, emphasizing a collective endeavor to boost regional airspace safety and efficiency. A thorough review identified priorities and implementation timelines for Performance-Based Communication and Surveillance (PBCS) to achieve reduced horizontal separation, with discussions facilitated by Traffic Sample Data (TSD) presentations from the Monitoring Agency for Asia Region (MAAR).

2.5 Additionally, the readiness of BOB member States for PBCS implementation was assessed, highlighting the importance of standardized practices and ATM modernization. The meeting's focus extended to developing Performance-Based Navigation (PBN) routes and optimizing airspace management strategies, with contributions from the US FAA on Performance-Based Separation Minima and discussions on Free Route Airspace (FRA) initiatives to meet the region's escalating air traffic demands.

SCSTFRG Meeting Outcomes (WP04)

2.6 The outcomes from the Tenth Meeting of the South China Sea Traffic Flow Review Group (SCSTFRG/11, Bangkok, Thailand, 04-06 July 2023) were presented for review and action by the meeting.

2.7 The meeting noted updated information on the SCSTFRG Priority Areas:

- *Priority Area 1: A1/A202*. 20 NM longitudinal spacing had been implemented on ATS routes A1 and A202. For the implementation of the parallel uni-directional route to A1, Viet Nam indicated that further assessment was needed.
- *Priority Area 2: L642/M771*. 20 NM longitudinal spacing had not been fully implemented until now, pending discussion and confirmation of the proposed changes amongst concerned States and Administrations along the routes. For further updates refer to Agenda Item 3, WP09 of this report.
- *Priority Area 3: A461/A583/L625/N892.* A461/M501: Phase 1 and Phase 2 of 30 NM longitudinal spacing implementation between Hong Kong China and the Philippines were completed. A583: The Philippines proposed a side meeting with Hong Kong China to discuss the details of Phase 3 Implementation, which was planned to commence in Q4 2023. N892 & L625: The Philippines confirmed that the implementation of 50NM longitudinal spacing would be postponed due to internal issues that need to be resolved first. For further updates, refer to Agenda Item 3, WP10 of this report.
- *Priority Area 4: Review of Existing FLAS/FLOS Operating within the South China Sea.* SCSTFRG/11 agreed that the SCSTFRG Priority 4 (optimisation of FLAS/FLOS operation) cannot be considered an isolated project; it has significant interconnectivity with the SCSTFRG Priority 1, 2 and 3 (reduction of longitudinal separation on primary routes). Reducing the longitudinal separation could enhance route capacity and improve airspace efficiency. Possible breakthroughs of the SCS FLAS dilemma were suggested by ICAO.

2.8 ICAO presented data on surveyed ATC separation standards that were being applied within the APAC Region compared to the provisions in the elements 7.34 and 7.35 of the Asia/Pacific Seamless ANS Plan. The survey questions circulated were expected to provide greater clarity on the separation minimums used in the region. The analysis in that WP was focused on SCSTFRG States/administrations.

2.9 Indonesia presented its initiative to support seamless Air Navigation Services within the South China Sea (SCS) Region by optimizing infrastructure in Ujung Pandang FIR and Jakarta FIR.

The meeting was informed of the following updates.

2.10 Indonesia, Malaysia, Singapore, and Viet Nam jointly presented a progress update on efforts by States to enhance the traffic flow on ATS route M768 through reduction of longitudinal spacing and the associated implementation plan.

2.11 Four side meetings were held at the SCSTFRG/11; the outcomes were reported to SAIOSEACG.

2.12 IFATCA echoed the ICAO's perspective on the interconnectivity of horizontal and vertical efficiency. It was emphasised that reducing the longitudinal spacing can effectively promote the optimisation of FLAS in the South China Sea. Furthermore, new technologies such as Trajectory-Based Operation (TBO) and Free Route Airspace (FRA) might shape the future of the South China Sea.

Agenda Item 3: Review of Current Operations and Problem Areas

Air Navigation Service Deficiencies List (WP05)

3.1 ICAO presents a list of Air Navigation Deficiencies noted by the Thirty-Fourth Meeting of Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG/34) in the Air Traffic Management (ATM) and Airspace Safety fields, for review by the meeting. The list is based on the uniform methodology for the identification, assessment and reporting of such deficiencies as described in Part V of the APANPIRG Procedural Handbook. APANPIRG Deficiencies had been issued in the following areas:

- Aeronautical Information Management (AIM);
- Airspace Classification;
- Air Traffic Services (ATS) Messages and Flight Planning;
- Search and Rescue (SAR);
- ATS Datalink; and
- airspace safety reporting.

3.2 Details of the ATM and Airspace Safety Deficiencies agreed by APANPIRG/34 were provided in **SAIOSEACG/3 WP/05 Attachment A**.

3.3 Regarding the deficiency in Airspace Classification, China stated that the new Airspace classification scheme in China, which is in accordance with the airspace classification requirements of Annex 11 Chapter 2, had been approved by the highest ATM authority. More details will be further introduced in the appropriate ICAO platform in a Working Paper at a later time this year.

3.4 India provided an update on the planned implementation of data link performance monitoring for Mumbai FIR to address the existing APANPIRG ATM and Airspace Safety Deficiency (post-implementation monitoring not implemented, Performance monitoring and analysis not reported for the Mumbai FIR). At the meeting, it was announced that FIT-Asia/14, followed by RASMAG/29 in 2024, would monitor the implementation and take necessary action accordingly.

3.5 IATA emphasised that from the airspace user's point of view, it is crucial to address AIM deficiencies such as non-adherence to WGS84 standards and inadequate AIS Quality management, on priority by the concerned states. These deficiencies have the potential to impact the safety of daily operations; prompt corrective action should be taken. In response to the improvement of the AIM deficiency, ICAO informed the meeting that a special AIS-AIM seminar would be organised this year

on the last day of the AIS-AIM implementation Task Force meeting. An invitation letter would be sent.

Airspace Safety Monitoring (WP06)

3.6 The Thirteenth Meeting of the Future Air Navigation Services (FANS) Interoperability Team-Asia (FIT-Asia/13) and the Twenty-eighth Meeting of the Regional Airspace Safety Monitoring Advisory Group (RASMAG/28) were held from 06 to 09 June 2023 and 21 to 24 August 2023 respectively.

FIT-Asia/13 Meeting Outcomes

3.7 FIT-Asia/13 was informed that the CRA could not thoroughly investigate some PRs because the dates of poor performance occurred too long before the PRs were submitted for relevant Communications Service Provider (CSP) and avionics logs to be available. Since CSP and avionics logs would be available for a limited period of time, Air Navigation Service Providers (ANSPs) were urged to take necessary actions promptly, including submitting PR.

3.8 The FIT-Asia/13 meeting was informed that not all FIT-Asia member administrations had formal service agreements with APANPIRG-recognized CRAs. Subsequent to the FIT-Asia/13 meeting, ICAO reviewed the situation and considered that, given the importance of data link problem reporting in States' performance monitoring obligations under Annex 6 Operation of Aircraft Part 11 and Annex 11 Air Traffic Service, APNPIRG/34 adopted the following ***Conclusion APANPIRG/34-16: Formal Service Arrangements with CRA.***

3.9 In response to a query, ICAO clarified that it would be difficult to set a timeline for States/Administrations to establish service agreement with authorised CRAs and ICAO would coordinate with States where necessary.

3.10 The Survey of the Status of Current and Planned Implementation of Performance-based Horizontal Separation Minima form had been amended to reflect the current separation minima in the *Procedures for Air Navigation Services – Air Traffic Management* (PANS ATM – Doc 4444) at FIT-Asia/12 in 2022. In additional some items in section 4 of the survey form might require clarification because the current and planned status were mixed in the survey. RASMAG agreed the following ***Conclusion RASMAG/28-2: Revised Survey of the Status of Current and Planned Implementation of Performance-Based Separation Minima.***

3.11 Overall Actual Surveillance Performance (ASP) for the region had met the 95% criterion. Brisbane FIR (YBBB) was the only FIR that cleared all Required Surveillance Performance (RSP) criteria in 2022. Overall Actual Communication Performance (ACP) for the region met the 95% criterion. Chennai FIR (VOMF) was the only FIR that cleared all Required Communication Performance (RCP) criteria in 2022. It was again noted that HF data link (HFDL) performance results did not meet PBCS performance requirements in all FIRs.

3.12 Previous meeting of FIT-Asia (FIT-Asia/9) agreed to conduct a review of the Guidance Material, However, as the task required non-FIT-Asia States/Administrations' contribution, the FIT-Asia has yet to complete the task. Therefore, FIT-Asia proposed transferring the task to RASMAG, where all member States/Administrations in the Region were participating. The meeting agreed to include this item in the RASMAG Task List.

RASMAG/28 Meeting Outcomes

3.13 The Monitoring Agency for the Asian Region (MAAR) had presented a combined summary of the safety analysis results for the Asia/Pacific Region, on behalf of the Asia/Pacific Regional Monitoring Agencies (RMAs) and Enroute Monitoring Agencies (EMAs). This working

paper covered the Asia area only. The full APAC consolidated Safety Report can be found in RASMAG/28 Final report, Appendix F.

3.14 The Asia vertical collision risk estimates had been above TLS each year from 2016 to 2020 but trending downwards since 2017 due to various safety improvement initiatives. The 2022 vertical collision risk estimate was below TLS. There was a total of 518 LHDs reported in the Asia area in 2022, with total duration 192 minutes and zero levels crossed.

3.15 The estimated horizontal collision risk for 2022 for the Asia area met TLS in all longitudinal and lateral risk categories. There were two LLDs and LLEs reported in the Asia area in 2022, with a duration of 104 minutes.

3.16 RASMAG/28 discussed and agreed that all hot spots except A2 be retained this year, and monitored for another year before considering their reclassification as potential non-hot spots can be removed and one new Hot Spot 'O' has been added.

3.17 MAAR proposed changes to the Guidance Material for the Continued Safety Monitoring of the Asia-Pacific RVSM Airspace. The review of the Guidance Material included contents from the LHD Material Package and updated information arising from APANPIRG conclusions and decisions since its first publication in 2019. RASMAG agreed to the proposed changes and to the following: ***Conclusion RASMAG/28-3: Guidance Material for the Continued Safety Monitoring of the Asia Pacific RVSM Airspace Version 2.***

3.18 RASMAG agreed and adopted the guidance for PBCS non-compliance reporting, amendments to the PBCS non–compliance form, Monitoring Agencies Terms of reference and PBCS action list for ANSP. The adoption of a stand-alone document detailing the Asia Pacific Flight Information Regions and Responsible Monitoring Agencies, to be maintained on the ICAO APAC website, and the consequential removal of this information from the EMA handbook. The meeting agreed on the following: ***Conclusion RASMAG/28-4: Removal of EMA handbook Appendix A and Guidance for PBCS Non-Compliance Reporting***.

3.19 An update on the extension of the Flight Plan RVSM Approval Verification Process (FPRAVP) was provided. The upcoming phase of the FPRAVP extension aims to incorporate seven additional States within the EUR RMA RVSM area, with the possibility of these States joining the scheme in 2024. Based on the most recent bulletin version (version 21.8), there were still five aircraft under MAAR's responsibility that continued to be listed on the EUR RMA bulletin, despite their previous inclusion in Bulletin version 17.7 in July 2022.

3.20 A survey was proposed to seek information from States to improve understanding by RASMAG and FIT-Asia of the PBCS approval process of APAC member states, and whether PBCS approvals issued were in accordance with Annex 6 and PBCS manual Doc 9869 chapter 4. RASMAG agreed to the following: ***Conclusion RASMAG/28-5: Survey for Asia Pacific States PBCS Approval Process.***

3.21 MAAR presented the overview of Long Term Height Monitoring (LTHM) compliance status in the APAC Region, including assessments of five APAC RMAs – AAMA, China RMA, JASMA, MAAR and PARMO burden in the APAC Region of 503 aircraft, which was a 5% decrease since 2021. States having a remaining monitoring burden of 30% or more, which could be subject to an APANPIRG ATM and Airspace Safety Deficiency.

3.22 RASMAG reviewed the APANPIRG ATM and Airspace Safety Deficiency List and agreed to make the recommendation to APANPIRG/34, as recorded in Appendix H to the RASMAG/28 Report. A deficiency for Indonesia was raised for having a Long term Height monitoring requirement remaining burden of 63%. Subsequently, Indonesia had put in effort to reduce the monitoring burden

to below 30% and thus the deficiency was not proposed during APANPIRG/34.

3.23 In response to an enquiry of signing-up PBCS charter, it was clarified that the PBCS charter was opened to both Civil Aviation Authorities (CAA) and Air Navigation Service Providers (ANSP), in addition to Airspace users, Aircraft manufacturers, Communication service providers, and Satellite service providers.

Air Navigation Service USOAP Update (WP07)

3.24 The Secretariat provided information on the ICAO Universal Safety Oversight Audit Programme (USOAP) Continuous Monitoring Approach (CMA). The paper discussed the Protocol Questions (PQs) used to assess a State's safety oversight system, and an annual update of ANS USOAP status.

3.25 **Figure 1** provides an average level of Effective Implementation (EI) for the 37 States[1] in APAC region that had been audited or received an USOAP activity in the Area of ANS. The average ANS-related EI of APAC region is 64.24% (September 2023). The data source was the USOAP Continuous Monitoring Approach (CMA) Online Framework (OLF)[2], which reflected the 2020 version of PQs and recent USOAP activities such as CMA Audit (CMAA), ICAO Coordinated Validation Mission (ICVM), and Off-Site Validation Activity (OSVA).

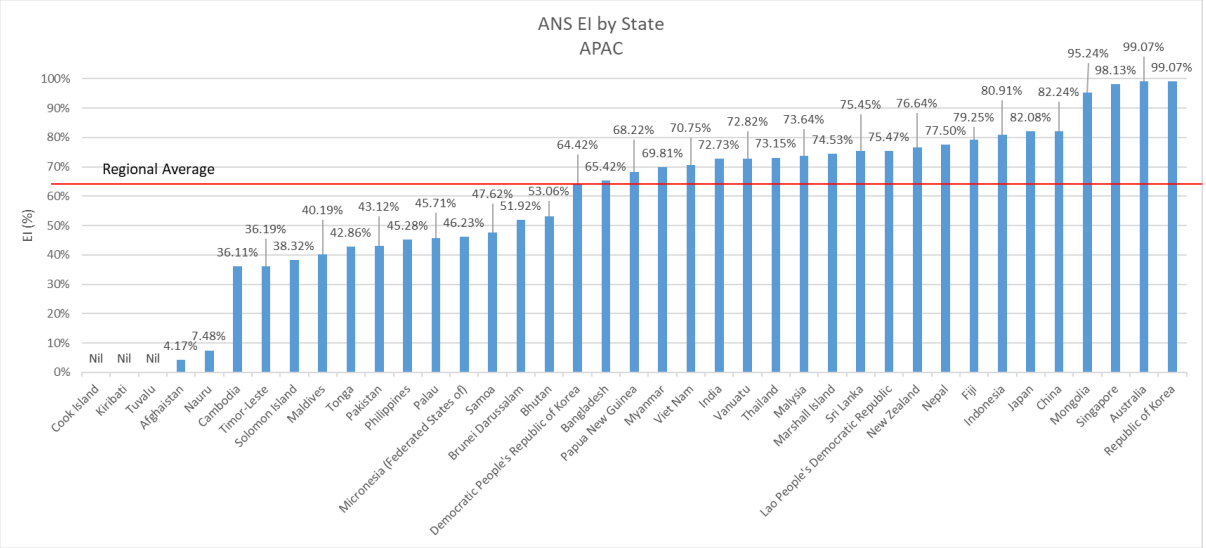


Figure 1: USOAP EI Comparisons by State (September 2023)

3.26 The meeting was informed that for 2024, four USOAP CMA activities had been scheduled in the APAC Region: three CMA audits and one ICVM.

[1] Cook Island, Kiribati and Tuvalu have not yet been audited ANS area.

[2] The USOAP CMA OLF is restricted access only to National Continuous Monitoring Coordinator (NCMC) and State users. Similar data is provided on the ICAO portal website, integrated Safety Trend Analysis and Reporting System (iSTARS 3.0); however, it may take time for the data to be updated.

3.27 As per the signed MOU between the Member State and ICAO, the State is required to develop and implement a corrective action plan (CAP) which addresses all elements of the "not satisfactory" PQ, including presentation of the necessary supporting documentation and evidence. And States are urged to ensure continuous updating of CAPs by indicating all of the following:

a) a progress level (in percentage %) for each action item as it is implemented; and

b) the date of completion for each completed action item.

Application of ATC Separation Minimums (WP08)

3.28 The ATC Separation survey requested respondents to advise the minimum horizontal separation minimums authorized for use by controllers within Category R (remote en-route airspace with Air Traffic Services (ATS) HF or CPDLC communications and outside the coverage of ground-based surveillance coverage), Category T (terminal operations serviced by direct ATS communications and surveillance) and Category S (serviced (or potentially serviced) en-route airspace – by direct (not dependent on a Communication Service Provider (CSP)) ATS communications and surveillance and the minimum horizontal spacing authorized by Air Traffic Services Letter of Agreement (ATS LOA) or other instruments on each of your Flight Information Region (FIR) inbound transfer of Control (TOC) points. Surveying the TOC points' spacing parameter is a step forward in helping to identify the 'bottleneck' FIR Boundary TOC points in the region. In addition, it was asked whether your Administration applied a Flight Level Allocation Scheme within its FIR(s) [no closer than 50NM to the FIR boundary].

3.29 As of 29 March 2024, the responses to the latest survey has decreased from 25 to 15 (compared to last reporting period). Q1 of the survey requested the minimum horizontal separation standard within State/administration's FIR and the criteria for analysis are shown below:

- Category R - Acceptable standard: ≤ 50 NM
- Category S - Acceptable standard: 5 NM
- Category T - Acceptable standard: 5 NM

3.30 The survey showed that 25% (11 of 44) of the APAC States and Administrations have all categories of airspace within the FIR with minimum separation compliant with the APAC Seamless ANS Plan. Some States still utilise more than 5NM in Category S & T airspace. India thanked ICAO for removing India from non-compliance of acceptable separation from Category S and Category R airspace owing to implementation of 5NM surveillance-based separation in ATS airspace of India.

3.31 Q2 of the survey looked at three categories of separations at Inbound FIR TOC points shown below and the criteria for analysis.

- Category R/S → R TOC- Acceptable standard: ≤ 50 NM
- Category R → S TOC - Acceptable standard: ≤ 50 NM
- Category S → S TOC - Acceptable standard: ≤ 10 NM

3.32 The survey showed the comparison of Inbound TOC points, the highest non-compliant TOC points belonging to Category S airspace to Category S FIR TOC Points. Even with surveillance coverage, the separation minimum of more than 10NM are currently implemented at TOC points in the APAC region. It was identified that Air Operations is one component of ICAO Long Term Aspirational Goal (LTAG) to reduce carbon emissions, therefore ICAO urges all APAC States and Administrations to address this key aspect of capacity and efficiency within their National Air Navigation Plans.

3.33 In addition, ICAO APAC Regional Office (and from a global perspective, ICAO HQ) also

has a role in highlighting the human performance aspects that act as barriers to the implementation of more efficient horizontal separations and aircraft spacing at TOC points, particularly those contained within the Asia/Pacific Seamless ANS Plan, E.g.: human performance-based training and procedures for operational staff providing ATS, including the application of tactical, surveillance-based ATC separation and control techniques near minimum ATC separation.

Progress Update on Capacity Optimisation of Air Routes L642 And M771 (WP09)

3.34 Hong Kong China updated the progress on the enhancement of longitudinal spacing on air routes L642 and M771 to follow up one of the action items agreed as Priority Area 2 in the region. Reference SAIOSEACG/2 and SCSTFRG/11 conducted in 2023, all concerned States/Administrations, i.e. China, Singapore and Vietnam expressed full support in implementing enhanced 20NM longitudinal spacing on L642 and M771.

3.35 A trial operation proposed by Hong Kong China for this project was agreed upon as a result. To expedite the process of discussion, Hong Kong China conducted an online meeting with China, Singapore and Vietnam in February 2024 and it was agreed in the meeting that the trial would commence in early May 2024. All concerned States/Administration agreed to complete signing the necessary Addendum or Memorandum of Understanding (MOU) to the existing Letter of Agreements (LOA) within March 2024.

3.36 It was reported to the meeting that the tentative commencement date of the trial was 7 May 2024 as agreed by all concerned States/Administrations during the online meeting. The trial will run from 0200 to 1200 UTC daily until further notice, with regular reviews when needed.

3.37 In response to the inquiry from Hong Kong China on the signing of MOU preparing for the planned trial operation, China and Viet Nam positively confirmed that the process will be done within a short period of time and the trial could be commenced as planned on 7 May 2024.

Optimisation of Air Routes A461, M501 and A583 (WP10)

3.38 Hong Kong China and Philippines jointly presented the progress of enhancing the minimum longitudinal spacing on ATS routes A461, M501 and A583 between their FIRs. The implementation of 30NM minimum longitudinal spacing on ATS routes A461 and M501 was successfully accomplished in Q1 2023.

3.39 Further work is ongoing to explore the feasibility of applying 30NM minimum longitudinal spacing between aircraft without CPDLC equipage on the two routes. Meanwhile, Hong Kong China continues to collaborate closely with the Philippines for the trial application of 30NM minimum longitudinal spacing on ATS route A583

3.40 Philippines re-confirmed its full support of the cooperation with Hong Kong China.

Improving Flight Delays on the Ground Through Reduction of Longitudinal Separation (WP11)

3.41 Singapore shared its progress on improving flight delays on the ground through the implementation of Air Traffic Management (ATM) initiatives. By leveraging technological advances to reduce longitudinal separation, Singapore encourages states to accelerate the enhancement of airspace capacity to support the continuous recovery of air travel.

3.42 ATM initiatives that enabled reduced longitudinal separation and ground departure intervals, such as the application of Automatic Dependent Surveillance-Broadcast (ADS-B) and Performance Based Navigation (PBN) were introduced.

3.43 It was emphasised that the ANSPs should collaborate on new ATM initiatives to reduce separation on ATS routes and, ultimately, to enable departure aerodromes to reduce the required departure intervals to eliminate unnecessary ground delay. On the other hand, the balance between the costs and benefits of implementing new ATM initiatives should also be considered in order to fully reap the advantages of evolving technology and enhancement to airspace capacity.

Advancing Regional Collaboration in the Sanya Flight Information Region（WP12)

3.44 China elaborated on Sanya FIR's strategy to improve in-flight rerouting, AIDC, contingency response collaboration, and reducing longitudinal transfer separation, which were all aimed at strengthening the safety and efficiency of regional civil aviation.

3.45 It was proposed to establish a standardised regional mechanism for in-flight rerouting along feasible air routes. This mechanism involves pre-negotiating rerouting conditions and procedures with adjacent FIRs on commonly used diversion routes, transitioning from the conventional 'apply before rerouting (ABR)' to 'rerouting before notifying (RBN)' approach. This enables aircraft to initiate rerouting directly without awaiting approval. China suggested that stakeholders identify air routes or segments within their own airspace where 'rerouting before notifying' procedures can be implemented.

3.46 For ATS Inter-Facility Data Communication (AIDC), China reported the meeting that on November 1, 2023, the AIDC was officially implemented between Hanoi and Sanya FIR, significantly enhancing operational efficiency and reducing communication workload. Besides, they are promoting the application of AIDC on routes L642/M771 between Ho Chi Minh and Sanya ACC.

3.47 China announced that Sanya FIR intends to implement CPDLC on routes L642 and M771 progressively.

3.48 Suggestions for enhancing regional contingency mechanisms at the operational level were also given by China, including establishing an information-sharing mechanism, establishing diversion coordination mechanisms and standardising contingency response at FIR boundaries.

3.49 China suggested maintaining lateral offset for aircraft on A1 routes as transitional measures, actively establishing lateral spacing, which might alleviate congestion and pressure to a certain extent, enhance airspace capacity and efficiency, and prepare for the establishment and implementation of parallel routes.

3.50 It was confirmed that Sanya FIR would collaborate with related FIRs to reduce the longitudinal transfer separation for L642/M771 from 50 nautical miles to 20 nautical miles. Subsequently, considerations will be made for further reducing transfer separation on denser routes such as A1/A202

3.51 During the meeting, discussions centered on the transitional use of OFFSET for A1 parallel routes. Lao PDR raised a query regarding the optimal starting point for OFFSET, to which China suggested commencing from Thailand. This alignment with the future commencement waypoint for A1 parallel routes was deemed suitable.

3.52 Thailand expressed the need for further research on the use of OFFSET proposed by China, considering its novelty. Hong Kong China echoed Thailand's viewpoint. ICAO also pointed out that this kind of OFFSET needs to be consistent with the recommended practices of the use of Strategic Lateral Offset Operation (SLOP) in ICAO PANS-ATM Doc.4444. The Chairman reminded that the ultimate goal shall be implementing parallel routes as prescribed in Priority Area 1.

3.53 Thailand and Hong Kong China remarked that the current focus should be on the establishment of A1 parallel routes. Other considerations were to be put on hold. Vietnam also

suggested getting their appropriate authorities involved in further discussions on the matter.

3.54 To effectively facilitate the discussion on Priority Area 1 of SCSTFRG, A1 parallel routes, the meeting agreed that ICAO would conduct a special coordination meeting among all relevant ANSPs prior to the upcoming SCSTFRG/12. States were required to provide POCs on the matter.

Agenda Item 4: Implementation of CNS-ATM Systems

Regional Air Navigation Plan Update (WP13)

4.1 ICAO has updated the electronic Air Navigation Plan (eANP) for the Asia/Pacific region, replacing the outdated ICAO Doc. 9673 with a new, standardised ANP template that is accessible through the ICAO Asia/Pacific Regional Office website. This initiative is designed to enhance regional air navigation by providing more accurate and validated data.

4.2 Significant progress in the development of the new Regional Air Navigation Plan began in 2017. It includes proposals for amendments (PfAs) for Flight Information Regions (FIRs) and Search and Rescue Regions (SRRs), urging states to validate and align their data for official recognition and accuracy. States are encouraged to review and provide feedback on their related FIR/SRR data, as shown Figure 2 and Figure 3, especially those not yet included in the ANP.

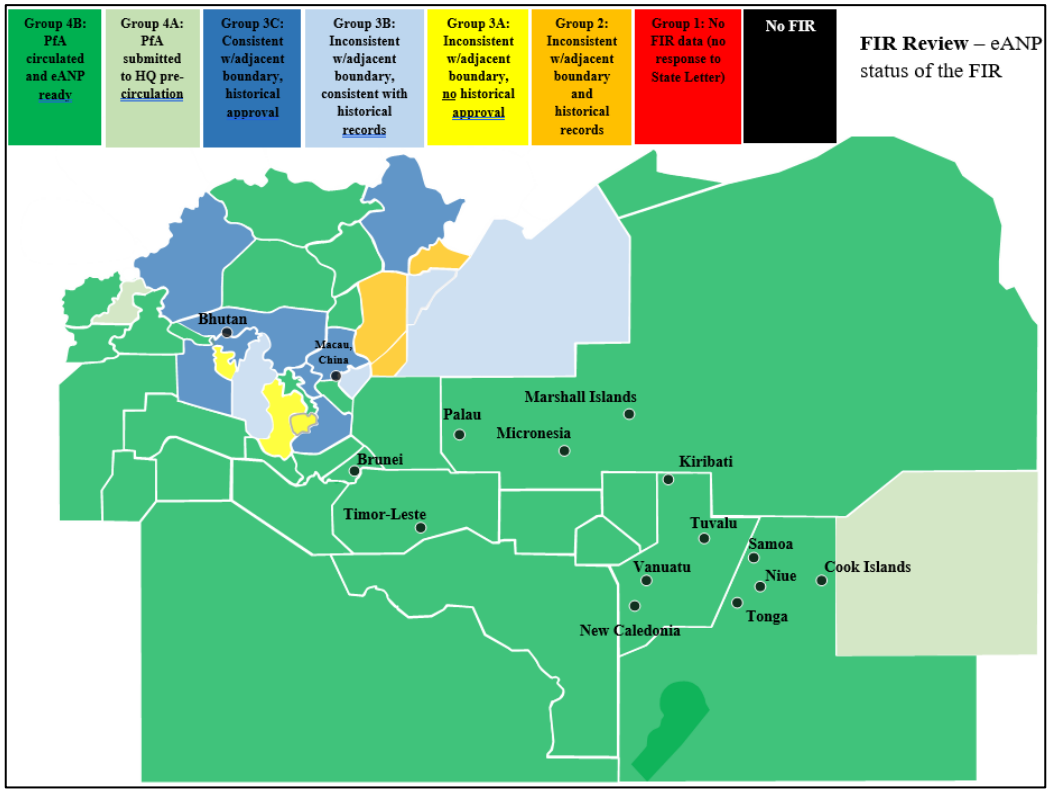


Figure 2: FIR Review Status, as at Mar 2024

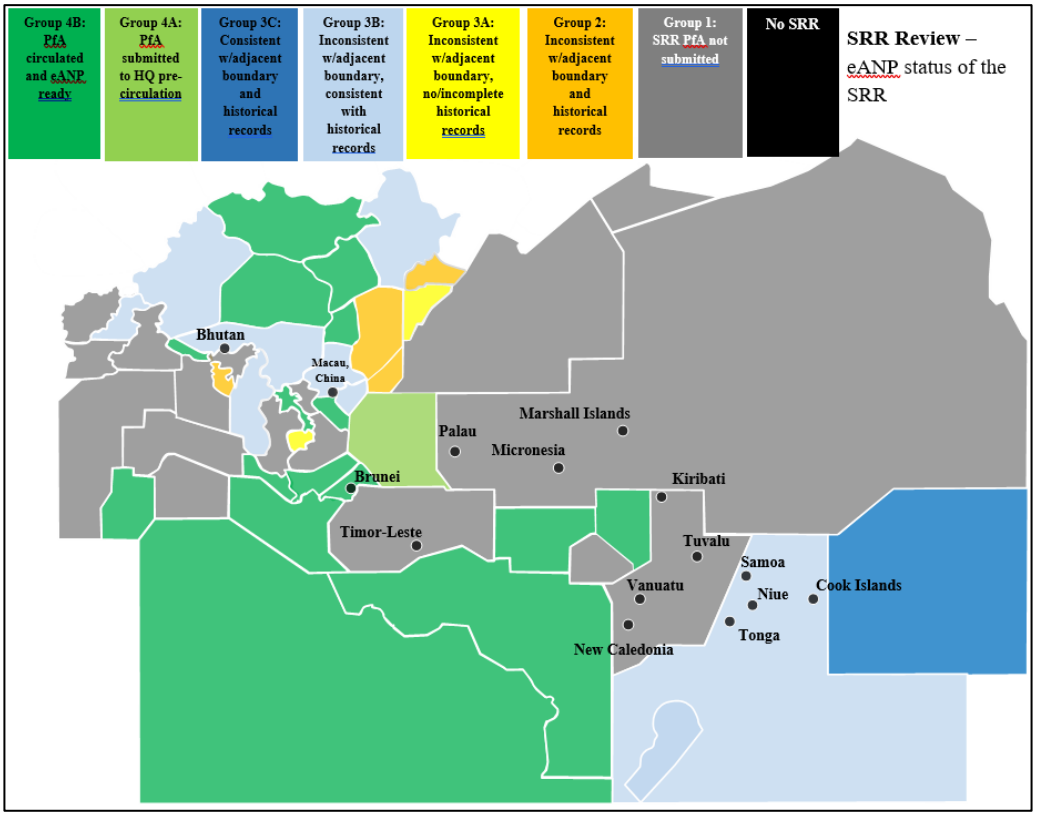


Figure 3: SRR Review Status, as at Mar 2024

DISCLAIMER: The presentation of material in this paper does not imply the expression of any opinion whatsoever on the part of ICAO, APANPIRG or the ATM Sub-Group of APANPIRG concerning the legal status of any country, territory, city or area of its authorities, or concerning the delimitation of its frontiers or boundaries.

4.3 The updated FIR/SRR data, once approved by the ICAO Council, will be integrated into the Regional Air Navigation Plan. The process prioritises FIRs due to their complexity, focusing on establishing accurate dimensions to facilitate easier configuration of associated SRRs. Several states have submitted significant amendments, which are considered based on consensus and alignment with neighbouring airspaces.

4.4 The meeting was appraised of the status of discussion for the unresolved areas of a) between the Lahore/Karachi FIRs and the Delhi FIR and b) between the Dhaka and Yangon FIRs. With reference to a), India intended to provide a response after the completion of its internal coordination. Furthermore, ICAO clarified that the approval for the Kolkata FIR PfA without finalising the PfA of the adjacent Dhaka FIR is still being deliberated within ICAO.

Seamless ANS Plan Update (WP14)

4.5 ICAO has updated the Asia/Pacific Seamless ANS Plan, last reviewed in 2019 alongside the Global Air Navigation Plan. Phase III was scheduled for implementation in November 2022, and Phase IV is planned for November 2025.

4.6 During the ATM/SG/11 and APANPIRG/34 meetings, discussions focused on updating the plan to align with global standards, emphasizing the ICAO's No Country Left Behind initiative. The update process involves editorial reviews, gathering feedback from APAC States, and input from APANPIRG Sub-Groups, aiming for broader consultation.

4.7 Additionally, the development of the APAC Seamless ANS Reporting Portal was

discussed at APANPIRG/34 to improve implementation reporting across the region. Feedback on the draft plan is being collected, with the final version expected to be endorsed at APANPIRG/35, enhancing regional air navigation planning and coordination.

4.8 The meeting discussed the plan for update of APAC Seamless ANS Plan as presented in the Working Paper. It was suggested that another workshop on APAC Seamless ANS Plan Reporting Tool may be planned later this year after the update of APAC Seamless ANS Plan to V4.0 so that the States become comfortable in using the reporting tool. The suggestion was taken note for consideration by ICAO. The Chairman remarked that seminars/ workshops organised by ICAO would also allow participation via video teleconference. States/ Administrations were encouraged to join via video teleconference if unable to join in-person.

Air Traffic Flow Management Update (WP15)

4.9 ICAO reported on the progress of Air Traffic Flow Management (ATFM) implementation in the Asia/Pacific region, aligned with the objectives of the Regional Framework for Collaborative ATFM.

4.10 At the ATM/SG/10 meeting in 2022, it was decided that Asia/Pacific administrations must submit annual ATFM implementation status reports by February 28th, covering the Regional ATM Contingency, Collaborative ATFM, AIM, and SAR Plans. The most recent reports from 27 administrations, including major ones like Australia, China, India, and Japan, indicate varying levels of implementation.

4.11 Administrations are evaluated as Robust (90-100% implementation), Marginal (70-89%), or Incomplete (0-69%). Currently, only eight administrations, such as Australia, China, and Japan, have achieved a Robust rating.

4.12 The ATFM Monitoring and Reporting Form is accessible online, with administrations urged to submit their reports in MS Excel to streamline data analysis. These submissions are crucial for monitoring regional advancements in air traffic management efficiency, especially following disruptions caused by the COVID-19 pandemic.

4.13 The meeting was informed about the latest status of ATFM implementation as reported by States. The States were urged to report on the implementation status.

AIS – AIM Implementation Update (WP16)

4.14 Outcomes from the 18th Meeting of the ICAO AIS – AIM Implementation Task Force (AAITF/18, 19 to 23 June 2023), as subsequently reviewed by ATM/SG/11, were provided to the meeting.

Regional Implementation Status of AIM Performance Expectations

4.15 An update was provided on the status of implementation of the performance expectations of the Asia/Pacific Regional Plan for Collaborative AIM, which were expected to be implemented in three phases: Phase I (immediately), Phase II (07 November 2019) and Phase III, (27 November 2025).

4.16 Japan, Singapore and Hong Kong, China reported implementation of all Phase I elements. Only Singapore reported implementation of all Phase II elements. **Figures 4** and **5** illustrated overall regional implementation of Phase I and II.

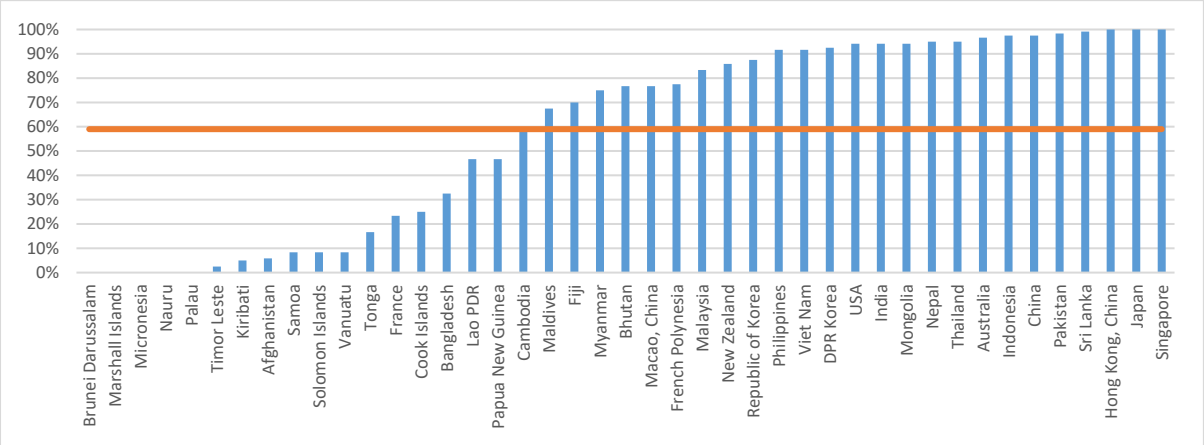


Figure 4: Regional Phase I Implementation Progress (updated 22 March 2024)

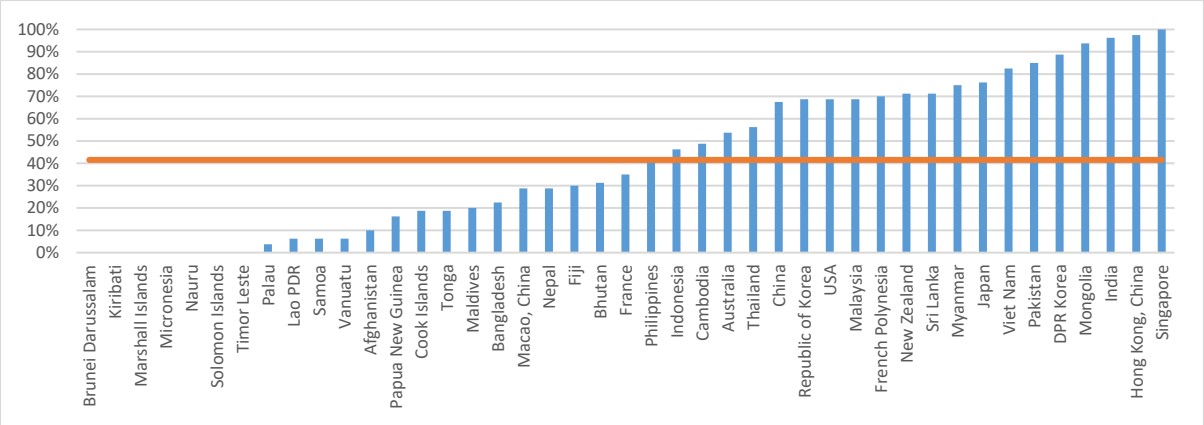


Figure 5: Regional Phase II Implementation Progress (updated 22 March 2024)

4.17 The meeting was noted there had been very little progress in AIS/AIM implementation for several years.

NOTAM Proliferation Analysis

4.18 AAITF/18 had discussed the proliferation of NOTAMs, using information provided by IFAIMA in collaboration with ICAO and referencing the ICAO Global Campaign on NOTAM Proliferation. Figure 6 provides information on the total number of 'old' NOTAMs (more than three months duration) and 'very old' NOTAMs (more than one-year duration) issued by APAC NOTAM Offices (NOFs).

4.19 India quoted from the report of last AAITF and stated that the data for old and very old NOTAM in respect of India is not correct and that India had submitted correct data, which ICAO had sent to DINS for scrutiny. IATA requested ANSPs to review Total NOTAMs. A large Number of NOTAMs may invite a risk of missing important information. Focusing on improving AIS documentation, planning, and timely publication will mitigate this risk.

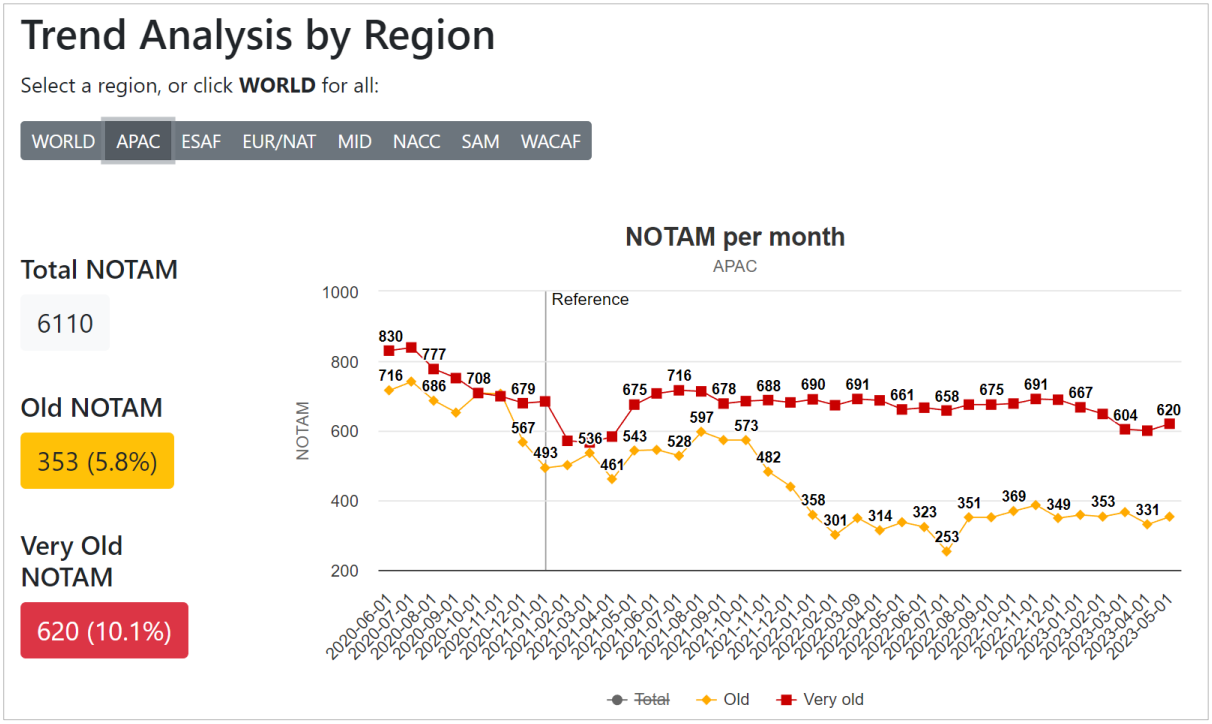


Figure 6: APAC NOTAM Statistics (old and very old)

Asia/Pacific Region ICARD Status and 5LNC Duplicate Resolution

4.20 The meeting was informed of ICAO activities on the use of the ICAO International Codes and Route Designators (ICARD) application in the APAC Region and the resolution status of 5-letter name code (5LNC) duplicates used to identify significant points, which Annex 11 required be globally unique.

4.21 The ATM/SG/11 meeting adopted ***Conclusion ATM/SG/11-7: Revised 5LNC Data Collection Spreadsheet***, drafted by AAITF/18.

Notification for NOTAM Service Disruption

4.22 The Asia/Pacific Regional Guidance for Contingency Planning and Response to NOTAM Service Disruption had been developed by AAITF/18 and adopted by ATM/SG under ***Conclusion ATM/SG/11-6: Asia/Pacific Regional Guidance for Contingency Planning and Response to NOTAM Service Disruption***

Preliminary Review of Guidance Manual for AIS in the Asia/Pacific Region

4.23 The meeting agreed that the Guidance Manual be retired and proposed update of the Asia/Pacific Regional Plan for Collaborative AIM included consequential amendments arising from the agreed retirement of the Guidance Manual, updates of a number of superseded items, and editorial amendments. The ATM/SG/11 meeting adopted following Conclusions drafted by AAITF/18:

Conclusion ATM/SG/11-8: Consolidation of Regional AIM Guidance Material*; and*

Conclusion ATM/SG/11-9: Revised APAC OPADD.

Preliminary Review of APAC ANP Vol II

4.24 AAITF/18 had discussed the review of the Asia/Pacific Regional Air Navigation Plan (APAC ANP) Vol. II conducted by IFAMA, in collaboration with the Secretariat. Subsequently, ATM/SG/11 meeting adopted Conclusion ***ATM/SG/11-10: Update of APAC ANP Vol II Part VII*** drafted by AAITF/18.

4.25 In response to ***Conclusion ATM/SG/11-10: Update of APAC ANP Vol II Part VII***, following Administrations had provided information for inclusion in APAC ANP Vol II Part VII:

Australia, Cambodia, Hong Kong China, Macao China, India, Indonesia, Malaysia, Mongolia, New Zealand, Pakistan, Philippines, Republic of Korea, Sri Lanka, Thailand and Viet Nam.

Future Direction of AAITF

4.26 A briefing on the history and progress of AAITF was provided to the meeting, together with proposed changes to its operations that were under consideration by the Secretariat.

4.27 Noting the importance of AIS to the safety and regularity of aviation, the meeting did not support a reduced of frequency of AAITF meetings. It was further proposed that AAITF may consider developing guidance on practical issues such as how to implement QMS, how to write procedures for AIS operations, and how to assess effective implementation.

4.28 The meeting was informed that the ICAO APAC Regional Office will conduct the AIS Quality Management Seminar in conjunction with AAITF/19, scheduled to be held in June 2024.

Review the AAITF TOR

4.29 AAITF/18 reviewed the AAITF Terms of Reference, noting the outcomes of discussion of the future direction of AAITF. APANPIRG/34 agreed to ***Decision APANPIRG/34/7: Update AAITF TOR***, drafted by AAITF/18.

Current Status of CRV Implementation in Indonesia (IP02)

4.30 Indonesia updated information on the current status of CRV implementation. In early 2022, Indonesia signed a service contract with PCCW Global for the CRV project. Since the first quarter of 2023, they have been working alongside neighbouring states to coordinate and establish connections for related applications. Indonesia also expected that additional voice and data connections with other adjacent FIRs could be established using CRV.

Trial Operation of Separation Minima Using Space-Based ADS-B and CPDLC in Mumbai Flight Information Region (IP03)

4.31 The 9th amendment to PANS-ATM (Doc 4444) introduced a new separation minima using ATS surveillance System where VHF Voice Communications are not available in Chapter-8 para 8.7.4. These separation minima help states who have implemented surveillance systems for the oceanic airspace in their FIRs to reduce horizontal separation where VHF Voice Communications are not available. India has started the trial operation of such reduced separation in its oceanic airspace. The surveillance is provided by Space-Based ADS-B, and the primary communication means is CPDLC.

4.32 India informed the meeting that they had started the trial of 20NM longitudinal separation based on the above criteria between eligible pairs of aircraft on routes L301 and L639 in Mumbai FIR from 15 January 2024 using Space-Based ADS-B and CPDLC after stakeholder consultation, safety

assessment, and permission from the Regulator. It is stressed that this type of separation minima is being used for the first time outside Canada and Europe.

4.33 India mentioned that the trial operation would continue for three months or more. Depending on its success and the lessons learned, it can be extended to other routes and the Oceanic airspace of Kolkata and Chennai FIR. IATA and ICAO appreciated India's efforts to improve efficiency and capacity in oceanic airspace through implementation of new technologies like Space Based ADS-B.

Implementation of 5NM Surveillance-Based Separation in ATS Airspace of India (IP04)

4.34 India reported to the meeting that they had implemented 5NM surveillance-based separation in the ATS airspace of India from 1st January 2024 across the ATS airspace of India for efficiency and capacity building.

4.35 The meeting also noted that India has a surveillance network of 27 MSSR, 18 PSR, 35 ADS-B, and Oceanic airspace Space-Based ADS-B sensors. Most of the RADARs are Mode-S RADARs. All the Area Control Centers and major airports have ATM Automation Systems capable of integration of surveillance sensors with Multi-Sensor Tracking, advanced safety nets such as STCA, APW, MTCD, MSAW, etc., Flight Data Processing, AIDC and decision-making tools, amongst other features.

Agenda Item 5: ATS Route Developments

Asia/Pacific Region ATS Route Catalogue (WP17)

5.1 At the SAIOSEACG/3 meeting, the focus was on improving the Asia/Pacific Region ATS Route Catalogue to enhance how airspace is managed and how Air Navigation Service Providers (ANSPs) work with those who use the airspace. The updated catalogue will focus on proposals that can quickly provide significant benefits, while those that cannot be done soon should be archived. ANSPs were asked to look closely at all proposals to see if there are any benefits that can be gained partially.

- SCS14 & SCS15: Malaysia proposed withdrawing the two route proposals. Singapore informed that they have no objections to the withdrawal of SCS14 and SCS15. IATA suggested that the two route proposals be archived for future use instead of withdrawn. The meeting agreed to archive the two route proposals from the ATS Route Catalogue.
- SCS11: Malaysia suggested to apply RNP10 route specification on the proposed routes. Singapore had no objections to either RNP2 or RNP10 navigation specifications for the proposed routes but highlighted that there are some operational details that need to be further discussed between the three States involved. In line with the APAC Seamless ANS Plan, ICAO recommended RNAV2 and RNP 4 as preferable options for future air navigation, and the suggestion was echoed by Viet Nam. As requested by Malaysia, IATA agreed to investigate the fleet equipage operating in the area.

Implementation of Himalaya 02 Route (WP18)

5.2 Nepal introduced the Himalaya-2 route at the meeting, emphasising its potential to enhance economic viability and environmental sustainability for air travel. This new route, which offers four alternatives, could significantly reduce air distance, flight times, fuel consumption, and CO2 emissions, helping to alleviate congestion over the Bay of Bengal and improve airspace utilisation. The proposal, which aims to save about 218 nautical miles on the Kathmandu-Hong Kong round trip, would

decrease flight time by 30 minutes and reduce fuel and CO2 emissions notably. Nepal urged ICAO, IATA, and the involved states to swiftly adopt and implement the route to capitalise on these benefits.

5.3 India stated that since domestic routes are involved, it has to review international operations on these routes. It also stated that this route passes through military areas, for which discussion with military authority is required. India also suggested that Nepal's route may be finalised and discussed with Myanmar (an important stakeholder) first before consideration by other concerned states.

5.4 Bangladesh suggested Nepal to consider their proposal for the segment from Kathmandu (KTM) - Saidpur (SDP) - SYT - Imphal (IIM).

5.5 The meeting recognised that further meaningful discussion of this proposal should be based on the basics of Myanmar's presence. In this connection, Nepal agreed to refine the route proposal taking into consideration of comments from Bangladesh and China and requested ICAO to set up a coordination meeting that involved all stakeholders, including Myanmar, for necessary discussion on the matter.

Side Meeting Between China and Nepal

5.6 A side meeting was conducted between China and Nepal, focusing on the feasibility of the route proposal. China and Nepal reviewed all four proposed schemes for this route proposal and particularly discussed the fourth scheme (i.e. IIM-LINSO) in depth. China acknowledged that using the existing entry/exit FIR boundary point (i.e. LINSO) to develop the new route scheme would help expedite the implementation of this route proposal. However, some portions of the IIM-LINSO route segment are as close as approximately 16 km to the Kunming FIR, which will eventually pose some operational challenges if this scheme is implemented. For example, the flights may need frequent coordination between different ANSPs when they need to deviate to the north on adverse weather conditions. Even in normal operational conditions, the route navigation specification, along with the operational pattern of the potential traffic flow (i.e. bidirectional or unidirectional), also needs to be considered for the same concern. Nepal agreed to consider these technical concerns further. Both China and Nepal agreed that they would continue to maintain close contact on this proposal via ICAO RSO.

New Route Proposals – Pakistan and Afghanistan (WP19)

5.7 IATA has suggested new air routes to improve flight efficiency between South Asia and Europe. The first proposal, PAK 01, includes two options that shorten the current Lahore FIR route by about 48 and 49 nautical miles, respectively, by using direct paths to MOTMO. These routes are expected to reduce CO2 emissions and increase safety by providing better options for emergency diversions over difficult terrain.

5.8 Additionally, IATA's AFG 03 proposal aims to open a new route through Kabul's airspace, linking Peshawar with waypoints in Dushanbe, which could save up to 71 nautical miles. This route would help reopen Afghanistan's airspace, reduce environmental impact, and ease congestion at critical crossing points. Targeted primarily at long-haul, wide-body flights, these proposals are part of broader efforts to enhance air traffic management for improved efficiency and safety.

5.9 Figure 7 below illustrates the proposed routes in Red marking along with present routes in pink marking.

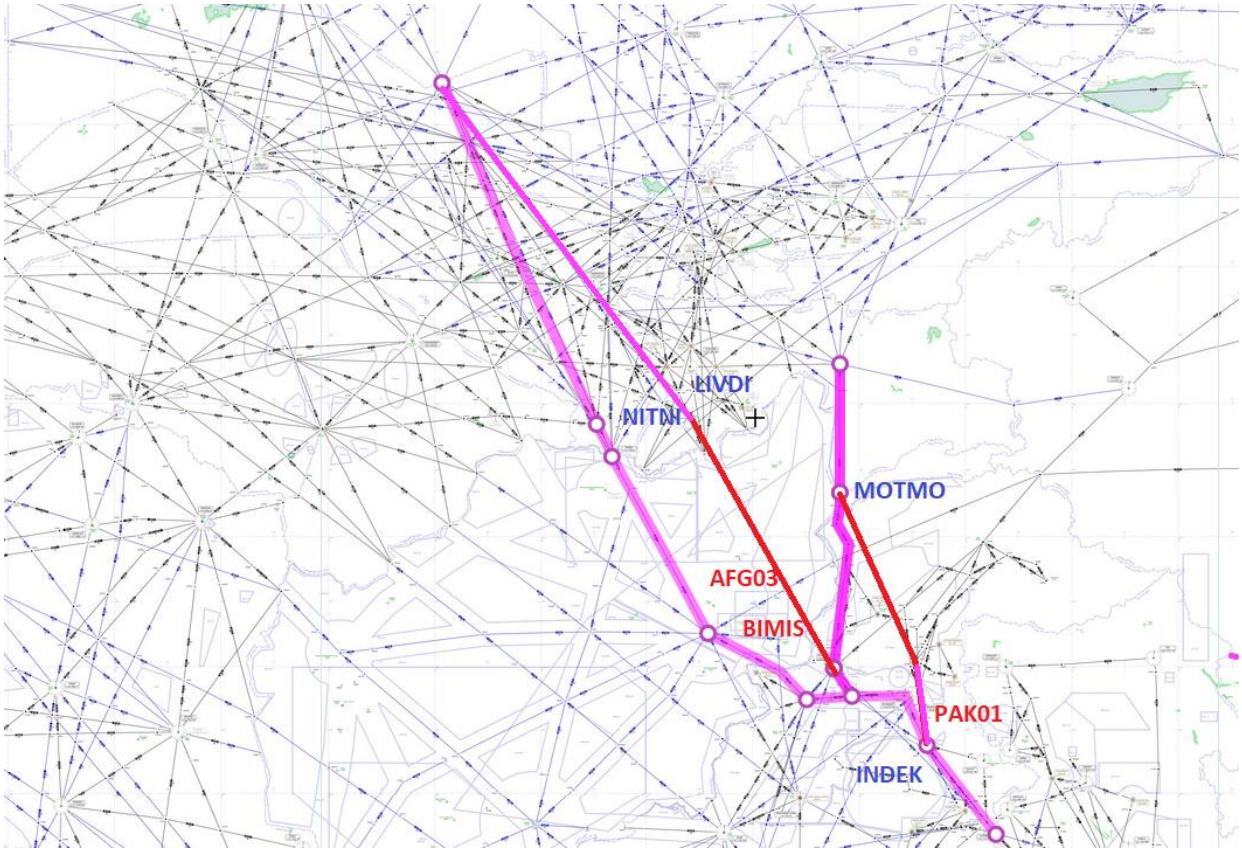


Figure 7: Illustrates the proposed AFG03 and PAK01

5.10 As to PAK 01, Pakistan mentioned restructuring of ATS Route T400 (route connectivity with P500) back in 2022 to facilitate traffic avoiding Kabul FIR and, in this regard, referred to its A41-WP/68. Pakistan reiterated its commitment to safety and flight efficiency while acknowledging airspace constraints due to restricted and prohibited areas near the proposed route. Pakistan emphasised the need for a detailed assessment of the proposal. IATA expressed openness to suitable alterations and encouraged the exploration of opportunities.

5.11 Regarding AFG 03, Pakistan affirmed its readiness to enhance airspace efficiency and mentioned the approval of the AFG 01 route from Peshawar to BIMIS. However, due to the contingency situation in Afghanistan's airspace, further exploration of this route awaits Afghanistan's readiness. IATA urged ICAO to consider updating this route as a contingency option or at a suitable time when Afghanistan's airspace stabilizes. ICAO RSO agreed to seek assistance from the ICAO APAC office to explore the feasibility of the project.

5.12 The two new route proposals will subsequently be incorporated into the Asia Pacific Route Catalogue.

Update on the Establishment of BOB01 Route as RNP10 Route P632 (IP05)

5.13 Bangladesh and India presented the update of establishing BOB01 route that they have been collaborating each other, aiming to enhance air traffic management across the Bay of Bengal. The route proposal, supported by discussions at ICAO APAC meetings and feedback from IATA, is designed to connect Southern Indian airports, Sri Lanka, Maldives, and the Far East efficiently, reducing flight paths and enhancing safety. The proposed route initially faced coverage issues outside of surveillance and VHF ranges. After consultations, including SUA considerations from Bangladesh, alternative paths were proposed to integrate the route with existing air traffic services better, ensuring minimal disruption and optimized flight levels.

5.14 An ICAO-hosted coordination meeting in May 2023 further refined the proposal, leading to a recommended route that promises environmental benefits by significantly reducing CO2 emissions. This route will also alleviate congestion over key navigation points like Kolkata VOR, benefiting numerous flights between Asia and the United States' east coast. It was intimated that Bangladesh and India have already conducted a safety assessment in the second week of April. The PfA has already been submitted to the ICAO APAC office. Following the approval of PfA by the ICAO Office and the signing of the LoA by both states, the ATS route shall be promulgated by both countries, which will be a part of a regional network of ATS Routes.

5.15 ICAO expressed gratitude for the culmination of a lengthy period of consultation and effort, extending thanks to Bangladesh, India, and IATA for their contributions.

PBCS Implementation Strategy in Indian Oceanic Airspace (Chennai) (IP06)

5.16 The Airports Authority of India (AAI) has upgraded its ATM automation systems in Chennai and Mumbai to implement PBCS-based separation minimums, enhancing communication and surveillance capabilities. This upgrade allows for more efficient aircraft separation, reducing the minimum distance between planes and thus improving traffic flow and safety in India's oceanic airspace. The systems now feature visual alerts and improved data handling, ensuring better compliance with international standards. Additionally, the DGCA of India has provided operational guidelines for PBCS to aircraft operators since 2018. These enhancements support India's rapid aviation growth and its integration with global aviation standards, particularly for flights traversing the oceanic regions connected to Chennai and Mumbai.

5.17 Malaysia asked about the India’s plan for inclusion of ATS route P628, to which India responded that the trial operations are planned initially for N571 and subsequently the other routes will be added based on the assessment of the requirements.

5.18 While addressing a query from the ICAO Secretariat regarding the service agreement with CRA, India and Malaysia updated the meeting that a coordination meeting between India and Malaysia is planned shortly to discuss the issues related to Implementation of PBCS based Separations in Bay of Bengal. Malaysia also requested IATA to be part of the discussions to be held between India and Malaysia.

5.19 IATA requested India reconsider widening the vertical band from FL340 to FL410, especially during the Westbound night peak traffic between South Asia and Europe, where the heavy B777s would need FL340. This would encourage airlines to take advantage of the reduced longitudinal separations using PBCS. India agreed to examine the proposal before finalising the trial operations.

5.20 Further to the discussion on the issue, while mentioning about the awareness of the state on the requirements for the ATM automation systems in terms of PBCS flight plan and navigation specification processing, India requested ICAO to provide the related guidance/information to the states.

5.21 ICAO secretariat while mentioning the poor implementation status of PBN-based separation in the APAC region and the requirement for signing agreements with the APANPIRG-authorized CRA, requested states not to stop the process of implementation of the PBCS-based separations pending the requirement of the CRA-agreement and instead urged the States to come together to establish CRA with support from the State having CRA.

Side meeting discussions between India, Malaysia and IATA

5.22 IATA requested a Side meeting between India and Malaysia regarding the awaited reduction in the longitudinal separation minima. During the side meeting, AAI and CAAM agreed to

formalise the following plans:

- Implementing 50NM longitudinal on transiting airways for the ADS-C/CPDLC equipped aircraft (thus meeting the 24-minute reporting interval beyond VHF capability). At present, this arrangement exists on an "Opportunity" basis. Now, both ANSPs agree to make it "applicable" rather than Opportunity-based. Thus, no prior coordination is involved to justify the "Opportunity." This will enable the 50NM separation standard as a default value.

- N571 for 30NM Longitudinal separation minima trials for ADS-C/CPDLC/RNP4/2, RCP 240 equipped fleet.

5.23 India and Malaysia will exchange DRAFT LoA and propose a formal meeting of ATM chiefs from both sides – Malaysia agreed to host the meeting by June 2024 (provisional).

5.24 Tentative timeline for implementation of the above: Though it will be possible to commence the flight operations in July, with the onset of Monsoon-related weather disturbance in the Bay of Bengal and anticipated weather deviation, both ANSPs agreed to commence the above effective September 2024. (AIRAC Cycle 05 SEPT 2024, this means the Proposal needs to be finalised in all respects by 11 July 2024 and Published by 01 August 2024.)

5.25 IATA wish to add that the ICAO Ministerial Conference will be hosted in India in September 2024. Perhaps both states should consider expediting the above plan to showcase a good example of collaboration at the ICAO Ministerial Conference.

Agenda Item 6: ATM Contingency Plans and Search and Rescue

Regional ATM Contingency Planning and Activities (WP20)

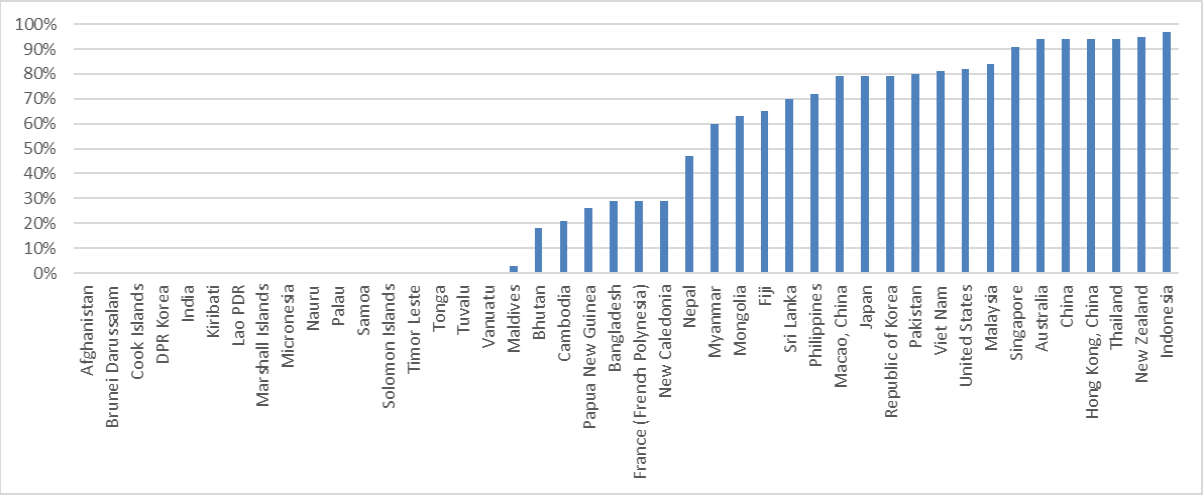
6.1 ICAO presented information on the Annex 11 Air Traffic Services standard requiring that States develop and promulgate contingency plans, the Asia/Pacific Regional ATM Contingency Plan and State reporting of implementation of its performance expectations, an outline of Annex 11 Attachment C Material Relating to Contingency Planning, and discussion of the formation and communications expectations of Contingency Coordination Teams (CCTs). A brief outline of ATM contingency operations in the APAC Region since the last report to ATM/SG/11 is also provided.

6.2 The *Regional ATM Contingency Plan* is available on the ICAO Asia/Pacific Regional Office e-Documents web-page, included among its performance objectives and the expectation that States would report their implementation status at least once annually using the Regional ATM Contingency Plan Monitoring and Reporting Form. The performance expectations of the plan were expected to be implemented by 10 November 2016, reflecting the Annex 11 standard that had been applicable since 2003.

6.3 Only Australia, China, Hong Kong China, Indonesia, New Zealand, Singapore and Thailand were assessed as having robust implementation, i.e. 90% or more of the regional performance expectations implemented.

6.4 The meeting is reminded that the ICAO Regional Office is expected to annually report the receipt, or non-receipt, of completed Contingency Plan Monitoring and Reporting Forms, in accordance with the performance expectations of the Regional ATM Contingency Plan, for consideration for addition to the APANPIRG ANS Deficiencies List.

6.5 **Figure 8** illustrated the overall regional implementation status:



6.6 It is also noted that email is a recognised form of communication used by business, government and international organizations, and that 'push-email' and later technology enabling the direction of emails to smart phones and other personal devices has been readily available for many years. ICAO therefore requests that all CCT Points of Contact ensure they provide an up-to-date email address, and that their Administration ensures their nominees for this purpose are enabled to receive and respond appropriately to official email communications out-of-hours.

6.7 The meeting was updated about the ongoing Kabul FIR contingency operations. Noting that ATS routes through the Kabul FIR are part of the major traffic flows between South Asia/Southeast Asia and Europe, and that the great majority of airspace users flights that would normally operate flights through the Kabul FIR have elected to deviate around it, ICAO wishes to recognize the efforts of States managing the additional traffic that continues to operate on non-normal routes through their FIRs, particularly (but not limited to) India and Pakistan, and the Middle East Region States.

6.8 Other contingency operations and information sharing coordinated by ICAO APAC Regional Office in 2024 were also be introduced. I.e.. Mogadishu FIR Contingency Coordination Team (CCT) and Unauthorized transmission on Tehran ACC frequencies.

6.9 The meeting was also informed that the ICAO APAC/MID ATM Contingency Planning Workshop (25-27 June 2024) will be held at the ICAO Asia and Pacific Regional Office, Bangkok, Thailand, from 25 – 27 June 2024. At the workshop, ICAO and subject matter experts from States, ANSPs, airspace users, and International Organizations will present an overview of relevant ICAO provisions, a review of the current regional ATM Contingency Framework, case studies on ATM contingency planning of operations, meteorology phenomena affecting ATM operation, etc. The workshop will also provide the opportunity to discuss how contingency management could work better and provide recommendations to improve the regional contingency plans. States/Administrations were urged to participate in the workshop.

6.10 In response to India's suggestion that the ICAO should manage and formalise the Point of Contact for CCTs for APAC States as well as neighboring states of other regions, it was confirmed that the ICAO APAC Regional office would consult with consultants from other relevant ICAO regional offices to find a better solution.

6.11 Regarding the inquiry on revising the APAC Contingency Plan, ICAO clarified that it was also a task for the APAC ANSP Committee (AAC) workstream 3, which was actively working on it. Such action taken by the AAC Workstream 3 is just one step among the whole processes for the new

version of the APAC Contingency Plan to be adopted by APANPIRG, and the revision will be further discussed at several ICAO platforms this year.

6.12 Replying to a query from India, ICAO also clarified that because volcanic ash could move with the wind for long distances, all APAC States/administrations are easily affected by volcanic ash regardless of whether there are active volcano exits within their jurisdiction. Thus, all APAC States/Administrations should take the volcanic ash into consideration in their contingency plans. And this topic will be further discussed at the *planned ICAO APAC/MID ATM Contingency Planning Workshop.*

6.13 India proposed that the GNSS interference should be included in the APAC Contingency Plan, and the meeting confirmed that the matter would be discussed at the ATM/SG/12.

6.14 IATA acknowledged Pakistan's competent, professional engagement in managing the Kabul FIR contingency situation, ensuring the sustained operation of increased flight volumes through the contingency routes. Pakistan responded that it is committed to providing the maximum possible support to manage additional traffic safely, avoiding Kabul FIR.

Indonesia ATM Contingency Plan Implementation (WP21)

6.15 Indonesia revealed updates to their ATM Contingency Plan, focusing on maintaining safe and orderly flight operations within the Indonesian FIR area. It outlines the establishment of a Central Coordination Committee (CCC) and an ATM Operational Coordination Group (AOCG) for Jakarta and Ujung Pandang FIRs, which are activated as needed to manage air traffic services during disruptions. The Terms of Reference (TOR) document guides stakeholders in implementing these plans.

6.16 In cases of service disruption at Jakarta ACC or Ujung Pandang ACC, air traffic control is delegated to alternate units with adjusted jurisdictional altitudes. Additionally, the successful FIR realignment between Indonesia and Singapore, effective March 21, 2024, will be incorporated into the Level 1 ATM Contingency Plan to enhance response capabilities.

6.17 Singapore thanked Indonesia for sharing their ATM Contingency Plan and informed that the successful FIR realignment would allow both Singapore and Indonesia to develop the Level 2 ATM Contingency Plan jointly.

Asia/Pacific Search and Rescue Update (WP22)

6.18 ICAO updated the Asia/Pacific Search and Rescue Working Group's activities, focusing on key developments from the eighth meeting in Bangkok. Highlights included:

- Global SAR Coordination: The USA shared insights from the recent ICAO/IMO Joint Working Group, emphasising the Asia/Pacific's active contributions to global SAR efforts.

- GADSS and LADR Developments: ICAO briefed on advancements in the Global Aeronautical Distress and Safety System and the Location of an Aircraft in Distress Repository, which support autonomous distress tracking in compliance with new international standards.

- COSPAS-SARSAT Updates: The meeting covered updates on the COSPAS-SARSAT system, noting its critical role in facilitating over 57,000 rescues since its inception.

- Regional Readiness for ADT: Discussions included a survey on regional readiness for autonomous distress tracking systems, underscoring the need for increased awareness

and preparedness among stakeholders.

- ADT Notification Procedures: Guidance was provided on how RCCs should handle notifications from autonomous distress tracking systems to ensure effective and timely responses.

- Regional SAR Implementation Review: Current SAR implementation status across the region was assessed, with a call for ongoing efforts to enhance SAR capabilities in line with global standards.

Coordination with Neighboring States and Airspace Users for ATM Contingency Plans (IP07)

6.19 Pakistan outlined their efforts to align its ATM Contingency Plans with ICAO standards and to address deficiencies identified during the USOAP CMA Audit in 2021. The main issue was the lack of coordination with neighbouring states and airspace users. To rectify this, the Pakistan Civil Aviation Authority (PCAA) reviewed and revised the contingency plans for Lahore and Karachi FIRs, consulting adjacent states and airspace users for feedback.

6.20 These adjustments are now in the final stages of approval, expected by April 2024, and will be shared through electronic means and AIP publications. This effort aims to ensure compliance with ICAO Annex-11 and the Asia-Pacific seamless ANS plan, anticipating the resolution of the ICAO finding during the upcoming ICVM in June 2024.

Agenda Item 7: ANSP Coordination and Civil/Military Cooperation

The implementation of Cross-boundary User-Preferred Route (UPR) (WP23)

7.1 Indonesia and the United States successfully completed action item 26/7 (SEACG) by finalizing the ANP Plan for Amendment (PfA) for the South China Sea (SCS) bypass route north from Biak. Enhanced coordination led to the adoption of User Preferred Routes (UPR) between Indonesia's Ujung Pandang FIR and the United States' Oakland Oceanic FIR. A new agreement effective March 17, 2023, updated previous protocols, setting a standard longitudinal separation of fifteen minutes at TCPs, reducible to ten with specific speed adjustments. This advancement concludes the action item concerning the SCS bypass.

7.2 All stakeholders agreed that Action Item 26/7 (SEACG) was completed, and update was reflected in the Task List of SAIOSEACG provided in **Appendix D** of this report.

Revalidation of Coordinate Data in Indonesia (IP08)

7.3 Indonesia presented the revalidation of coordinate data in Indonesia and shared information about the mechanism of coordinate data revalidation that has already been arranged in Indonesia's national regulation.

7.4 It is emphasised that the revalidation of coordinate data is to ensure the coordinates of surveyed and calculated points (calculation based on a surveyed point or points) are updated as necessary to ensure their accuracy and integrity are maintained when changes occur due to geophysical effects.

Agenda Item 8: Review of SAIOSEACG Task Lis

Review of SAIOSEACG Task List (WP25)

8.1 The SAIOSEACG Task List as reviewed by the meeting is provided in **Appendix D**.

Agenda Item 9: Any Other Business

ATM Points of Contact (WP26)

8.2 The Secretariat presented the current *ATM Points of Contact List* (**Appendix E**), and requested that States/ Aministrations to provide update as required.

8.3

Closing and the Next Meeting

The co-Chairs thanked the meeting participants for their significant contribution and the progress made during the meeting.