INTERNATIONAL CIVIL AVIATION ORGANIZATION

REPORT OF THE FOURTH MEETING OF THE SOUTH ASIA, INDIAN OCEAN AND SOUTHEAST ASIA ATM COORDINATION GROUP (SAIOSEACG/4)

BANGKOK THAILAND, 18 – 21 MARCH 2025

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

CONTENTS

APPENDIXES

INTRODUCTION

Meeting

1.1 The Fourth Meeting of the South Asia, Indian Ocean and Southeast Asia ATM Coordination Group (SAIOSEACG/4) was held in Bangkok Thailand, from 18 to 21 March 2025.

Attendance

2.1 The meeting was attended by 59 participants from Cambodia, China, Hong Kong China, India, Indonesia, Lao PDR, Malaysia, Maldives, Pakistan, Philippines, Singapore, Sri Lanka, Thailand, United States of America, Viet Nam, IATA 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 Ms. Zhang Ying, Deputy Chief RSO. The meeting was also supported by Mr. Takata Hiroyuki and Mr.Mior Sallehhuddin, Mior Adli Bin, Regional Officer ATM ;Mr. Ying Weng Kit, ATM Officer; Mr. Tak Chuen Chui, Regional Officer ATM/AIM; 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. 22 Working Papers (WP), 5 Information Papers (IP) and 3 Flimsys 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

<table>
<tr><td colspan="3">Decision SAIOSEACG/4-1 − SOUTH CHINA SEA LARGE SCALE WEATHER DEVIATION PROCEDURES</td></tr>
<tr><td colspan="2">What: Concerned States/Administrations should continue to apply surveillance separation, during Large-Scale Weather Deviation (LSWD) and minimise additional buffers for longitudinal spacing as far as practicable, through safety assessment process, on ATS routes L642 and M771.</td><td>Expected impact:
☐ Political / Global
☐ Inter-regional
☒ Economic
☐ Environmental
☒ Ops/Technical</td></tr>
<tr><td>Why: In the case of activation of LSWD procedures, concerned States/Administrations may default from 20NM surveillance separation to 50NM or more due to a lack of regionally agreed procedure. This may result in unnecessary capacity reductions and delays, create potential issues for airlines in terms of fuel and flight management, and increase ATC workload.</td><td colspan="2">Follow-up: ☒Required from States</td></tr>
<tr><td>When: 21-Mar-25</td><td colspan="2">Status: Draft to be adopted by Subgroup</td></tr>
<tr><td colspan="3">Who: ☒Sub groups ☒APAC States ☐ICAO APAC RO ☐ICAO HQ ☐Other:</td></tr>
</table>

<table>
<tr><td>Decision SAIOSEACG/4-2: Coordination of ATS Route Proposals from the RDGE-SCM/2024 between the ICAO EUR and APAC Regions</td></tr>
</table>

<table>
<tr><td colspan="2">What: Coordination and Discussion of possible steps in order to progress the implementation of the presented ATS Route proposals with the States in the APAC Region</td><td>Expected impact:
☐ Political / Global
☒ Inter-regional
☐ Economic
☐ Environmental
☒ Ops/Technical
☒ Safety</td></tr>
<tr><td>Why: Enhance flight safety and improve overall air traffic management efficiency</td><td colspan="2">Follow-up: ☒Required from States</td></tr>
<tr><td>When: 30-Sep-25</td><td colspan="2">Status: Draft to be adopted by Subgroup</td></tr>
<tr><td colspan="3">Who: ☐Sub groups ☒APAC States ☒ICAO APAC RO ☐ICAO HQ ☐Other: XXXX</td></tr>
</table>

REPORT ON AGENDA ITEMS

Agenda Item 1: Adoption of Agenda

Adoption of Agenda (WP01)

1.1 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 This summary outlines the discussions and decisions from the 14th ICAO Air Navigation Conference and the Twelfth Meeting of the Air Traffic Management Sub-Group. It highlights the push for enhanced air traffic management efficiency, safety, and modernization across global and regional levels.

2.2 Key developments include Project 30/10, which targets reduced longitudinal separation to enhance airspace capacity, and initiatives like Free Route Airspace (FRA) to streamline flight paths and minimize environmental impact. The conference also stressed the need for a transition to the Flight and Flow – Information for a Collaborative Environment (FF-ICE) system by 2034, aiming to retire the current flight planning system to boost global air traffic management coordination.

2.3 Discussions also covered the necessity for resilience and contingency planning in the face of increasing airspace disruptions from conflicts and GNSS interference, emphasizing the importance of maintaining conventional navigation aids for safety. Additionally, the trajectory-based operations (TBO) initiative was highlighted as essential for improving flight predictability and efficiency, with ICAO committed to providing necessary technical guidance and support.

2.4 Regionally, updates to the Asia/Pacific Seamless ANS Plan were urged to ensure compliance with modernization efforts and Aviation System Block Upgrades (ASBU). Specific attention was given to optimizing key air routes in Asia, like routes L642/M771, and operational trials aimed at refining separation standards.

2.5 Lastly, successful cross-border cooperation examples were discussed, including the implementation of Direct Routing Operations between Singapore and Indonesia, which have significantly cut flight times and fuel usage. Vietnam's ongoing airspace and air traffic flow management enhancements were also noted. ICAO plans to continue supporting the expansion of Free Route Airspace and the deployment of trajectory-based operations to foster inter-regional cooperation.

2.6 IATA emphasised the need to apply the smallest separation standards that ATM systems and aircraft avionics permit, regardless of tactical constraints.

SCSTFRG Meeting Outcomes (WP03)

2.7 ICAO presented the key outcomes of the twelfth meeting of the South China Sea Traffic Flow Review Group (SCSTFRG/12) held in Bangkok, Thailand, from 11 to 13 November 2024.

2.8 As clear requirements and goals have been given by the AN-CONF/14, the Project 30/10 – Optimised implementation of longitudinal separation minima (AN-CONF/14), which gives the SCSTFRG the necessity to modify the existing priority areas, especially the Priority Area 1, 2 and 3. As a result of the discussion among SCSTFRG stakeholders, the ***Decision SCSTFRG/12-1: Modifications on SCS Priority Areas*** has been reported to the SAIOSEACG.

2.9 The discussion in SAIOSEACG/4 mainly focuses on the SCSTFRG Priority Areas and the current and planned CNS/ATM capabilities and identifying associated reduced horizontal separation. The routes that have been discussed are A1, A202, L642, M771, A461, A583, N892, L625, M768, M761, M758, and M772. In an endeavour to better promote goal-oriented strategies, the meeting has established Route Profiles for the abovementioned ATS routes, which have been updated by the meeting and are attached in **Attachment E** for this report.

2.10 As the relevant State mentioned, even though LOAs have been signed, the target transfer separation could not be used in many cases. Challenges in implementing reduced separation were discussed, including the need for coordination among multiple FIRs, the impact of large-scale weather deviations, and the ATFM measures added to daily operations.

2.11 The discussion about establishing the parallel route of A1 was comprehensive and recorded under the Working Paper 18 *Proposal for Advancing Parallel Route A1 Implementation with the Background of China Upper ATS Routes Network Planning.*

BOBTFRG Meeting Outcomes (WP04)

2.12 The Bay of Bengal Traffic Flow Review Group (BOBTFRG), part of the SAIOSEACG, met in Bangkok from November 14 to 15, 2024, to enhance airspace efficiency and safety by analyzing air traffic patterns and routes in the Bay of Bengal. Attended by representatives from across the region and international organizations, the meeting discussed significant ATM enhancements including the implementation of Project 30/10, promoting Free Route Airspace (FRA), and transitioning to FF-ICE by 2034, aimed at streamlining air navigation services and reducing environmental impacts.

2.13 Key discussions included the phased implementation of Performance-Based Communication and Surveillance (PBCS), with milestones set for immediate and future developments to improve longitudinal and lateral separation in the region. The meeting highlighted the readiness of ATM/CNS systems across the member states, with varying levels of preparation for advanced air traffic management technologies.

2.14 Additionally, space-based ADS-B trials were discussed as a means to enhance tracking and surveillance in remote areas. The review of the current Flight Level Allocation Scheme (FLAS) pointed out inefficiencies in airspace management, prompting recommendations for its optimization in line with the Asia/Pacific Region Seamless ANS Plan.

2.15 Plans for reactivating the BOBCAT ATFM system by 2025 were also made, focusing on enhancing regional coordination and readiness for more efficient air traffic management amidst increased traffic flows between South Asia and Europe. A side meeting was arranged to discuss the relevant matter, including Pakistan, Thailand, IATA and ICAO; details will be provided to the upcoming ATFM/SG, and a Working Paper will be submitted by IATA.

2.16 Due to the absence of the BOBTFRG/6 meeting, India updated the meeting with their readiness for PBCS implementation; information was incorporated in Table 1 below:

STATE	FIR	FPL PROCESSING FOR PBCS	ADS-C /CPDLC	RCP 240	RSP 180	POST IMPLEMENTATION MONITORING	REMARK
BANGLADESH	DHAKA						ATM automation system not implemented yet, planning on 2025
INDIA	CHENNAI	YES	AVAILABLE	YES	YES	YES	System testing completed
	KOLKATA	NO	AVAILABLE	YES	YES	YES	
	MUMBAI	YES	AVAILABLE	YES	YES	YES	System testing in new ATM Automaion System required
INDONESIA	JAKARTA	NO	TRIAL	NO	NO	NO	The system will be upgraded in Q3 2026.
MALAYSIA	KUALA LUMPUR	NO	AVAILABLE	YES	YES	YES	monitoring only for ADS-C/CPDLC
MYANMAR	YANGON	NO	YES	NO	NO	NO	
SRILANKA	COLOMBO	On testing	YES	YES	YES		The system will be upgraded to PDC by 2024.
THAILAND	BANGKOK	YES	NO	NO	NO	AVAILABLE	En-route airspace is fully covered with SSR. no plan to prescribe PDC.

Table 1: The readiness of ATM/CNS system of BOB States (Updated March 2025).

2.17 The discussion around the PBCS-Based Separation implemetation in BOB area were recorded under the Working Paper 10 *Implementation of PBCS-Based Separation in Oceanic Airspace in Chennai FIR*.

Updates on FRA and UAS RPAS in ATM (IP02)

2.18 The ICAO highlighted the APAC region's commitment to developing FRA and integrating UAS into airspace management. Free Route Airspace (FRA) Implementation Workshop held on November 13, 2024, this second workshop drew onsite and online participation from member states and international bodies. It focused on FRA concepts, sharing best practices and tools for transitioning to FRA. The workshop stressed the importance of global collaboration for efficient and sustainable air traffic management, aiming to enhance understanding of FRA's technical, regulatory, and operational aspects.

2.19 And UAS RPAS Webinar conducted on December 11-12, 2024, this webinar discussed regulatory updates, national strategies for Advanced Air Mobility (AAM), and Urban Air Mobility (UAM), and effective drone management practices. It aimed to facilitate knowledge exchange on integrating unmanned systems into aviation infrastructure, covering updates on regulatory frameworks, national efforts to enhance aviation safety, and strategies for managing unauthorized drone activities. The discussions also emphasized safety challenges and the harmonization of manned and unmanned aircraft systems.

2.20 ICAO APAC RSO recommended Member States to seek feedback on priorities and challenges, urging them to share insights via email or verbally for future focus and improvements in aviation safety and efficiency.

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-Fifth Meeting of Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG/35) 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);
- Aeronautical Data Area of Responsibility;
- Designation of Restricted Areas Deficiencies
- 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/4 WP/05 Attachment A**.

3.3 Regarding the deficiency recorded in the area of Airspace Classification, China responded to the meeting that it has always been committed to the rationalisation of airspace classification research. In the fourth AIP Amendment of 2024, the method of airspace classification in China was published in chapter ENR 1.4.1. And an IP which introduced China's airspace classification was also submitted at the ATM/SG 12. The new airspace classification scheme in China which is in accordance with the airspace classification requirements of ICAO Annex 11 Chapter 2. Besides, China is also proceeding with the implementation of airspace classification as planned. More details will be introduced in the appropriate ICAO platform in a Working Paper at a later time.

3.4 Regarding the Designation of Restricted Areas Deficiencies, India stated that it would have appreciated knowing the progress of the proposal of MoA (Military Operation Area) by Australia. However, India is in discussion with its Military to get a solution to remove this deficiency. Regarding ATS Datalink Deficiencies (RASMAG), India stated that Mumbai ATM Automation System is now of producing the required data and a paper in ATMSG-11 showing the data extracted. However, ATMSG advised to submit the data to FIT Asia, but as India could not attend FIT Asia 2024, the data could not be accepted by FIT Asia. India assured that they would present the data in FIT Asia,2025 and request APANPIRG to remove the deficiency. Regarding the new deficiency Safety Reporting Deficiencies (RASMAG), India stated that this might be the inability to submit the updated data in FIT Asia and RASMAG, and they would submit the updated height monitoring data to the relevant agencies this year.

3.5 Regarding Australia’s Designation of Restricted Areas Deficiency IATA informed of concerns raised with CASA re-designation of TIBA volumes as D-Areas over the High Seas and explained how the action to remove a deficiency has not changed the issue of needing to avoid airspace.

Airspace Safety Monitoring (WP06)

3.6 ICAO presented outcomes relevant to the SAIOSEACG from the Future Air Navigation Services (FANS) Interoperability Team – Asia (FIT-Asia) and the Regional Airspace Safety Monitoring Advisory Group (RASMAG).

3.7 FIT - Asia Meeting Outcomes: States were urged to make formal service arrangements with a recognised Central Reporting Agency. The US FAA's contract might be expanded for FIT - Asia States. Japan provided a data link performance report, and Indonesia and Malaysia volunteered to

compile data jointly. Some performance criteria were met in most Flight Information Regions (FIRs), and the reporting templates' colour codes were revised. FIT - Asia also planned to conduct a workshop in 2025 and encouraged States to submit PBCS implementation surveys.

3.8 RASMAG/29 Meeting Outcomes: The Monitoring Agency for the Asian Region presented an Asia - Pacific safety report. In the Pacific area, the vertical collision risk exceeded the Tolerable Level of Safety (TLS), while the horizontal collision risk met TLS. In the Asia area, both vertical and horizontal collision risks met TLS. RASMAG reviewed hot spots, guidance materials, and the APANPIRG list of deficiencies, and added new task items.

3.9 Both meetings' outcomes are crucial for enhancing airspace safety monitoring in the Asia - Pacific region, covering data reporting, performance assessment, risk management, and regulatory compliance in air traffic management. Participants were invited to note various aspects such as the expansion of the FAA contract, technical conclusions, changes in ATM and airspace safety deficiencies, the remaining open RASMAG task list items, and discuss relevant matters.

3.10 In response to a query, ICAO clarified that most LHD reports were sourced from ANSPs' monthly reports submitted to the designated Regional Monitoring Agencies, including "Nil" reports. There was also an ongoing collaboration with groups within the ICAO RASG (Regional Aviation Safety Groups) to collect reports from pilots.

3.11 The United States updated that the proposed arrangement to expand the CRA services contract to cover all Asia and Pacific States was under a required governmental review and would be delayed in the near term. Additionally, recent plans for a comprehensive FAA ATM system upgrade could potentially delay the proposed mitigation for the LHD hot spot in the Central East Pacific airspace.

Air Navigation Service USOAP Update (WP07)

3.12 ICAO updated on the 2024 edition of the ICAO Universal Safety Oversight Audit Programme (USOAP) Continuous Monitoring Approach (CMA) Protocol Questions (PQs). It discussed the enhancements made to safety oversight assessments, the implementation timeline, and details the current USOAP activities in the Asia-Pacific (APAC) region, including regional safety performance and scheduled audits and workshops. ICAO's detailed announcement was as follows.

3.13 Key Updates and Implementation:

- The 2024 PQs reflect the latest ICAO standards and incorporate insights from the High-Level Conference on COVID-19 (HLCC 2021), enhancing Safety Management System (SMS) and State Safety Programme (SSP) evaluations.
- These updates are set to take effect from July 1, 2025, except for SSP-related PQs, which will be phased in later. Changes will not affect a State's Effective Implementation (EI) score until they are officially evaluated.

3.14 **Regional Performance and Audit Overview:**

- As of February 2025, the APAC region's average EI score for Air Navigation Services (ANS) stands at 65.42%, with 21 out of 37 audited States meeting or exceeding this average.
- This figure is below the global average, indicating a need for regional enhancements in safety oversight.
- These statistics are drawn from recent ICAO audits, Coordinated Validation Missions (ICVMs), and Off-Site Validation Activities (OSVAs).

3.15 **Scheduled USOAP Activities and Workshops (2024-2025):**

- The year 2024 saw the completion of two CMA audits and one ICVM in the APAC region.
- For 2025, six USOAP CMA activities are planned, comprising four audits and two ICVMs.
- Regional workshops are also scheduled to support States in self-assessment and compliance procedures, with sessions planned for Lima, Peru in April 2025, and Bangkok, Thailand in November 2025.

3.16 India commented that the website mentioned in the paper for PQs requires a username and password. In response to the query, ICAO clarified that ANSPs can access those through their State's National Continuous Monitoring Coordinator (NCMC).

3.17 India suggested that the PQs should be available in the public domain, which can help States to prepare themselves better for any USOAP audit. Since the purpose of the audit is to improve the performance of CEs, the availability of PQs in the public domain will help both ANSP and the Regulator of the States. Pakistan supported the comment by India and stated that since PQs are not any examination questions, there will be no harm in putting them in the public domain. Pakistan requested that ICAO consider the matter.

3.18 It's also reaffirmed by ICAO the 2024 edition of the PQs will be gradually migrated into the OLF. States will be given at least six months before the new edition of the PQs becomes applicable to them. For USOAP CMA activities starting before 1 July 2025, the 2020 edition of the PQs will continue to apply.

Application of ATC Separation Minimums (WP08)

3.19 This meeting updated on the Asia/Pacific (APAC) region's implementation of air traffic control (ATC) separation minimums as per the Seamless Air Navigation Services (ANS) Plan. ICAO highlighted the annual surveys initiated by the ICAO APAC Regional Office since 2017, which assess ATC horizontal separation standards and Flight Level Allocation Schemes (FLAS) to enhance operational efficiency and align with ICAO's global standards.

3.20 **Survey Results and Compliance Trends included the following;**

- Surveys have gathered data from APAC States regarding minimum horizontal separation in three airspace categories: remote en-route (Category R), surveilled en-route (Category S), and terminal (Category T) airspace.
- The surveys also evaluated separation at Flight Information Region (FIR) Transfer of Control (TOC) points to identify bottlenecks, with color-coded compliance reporting.
- In 2025, submissions from 12 States marked a decrease, with only 17 of 44 APAC States fully meeting separation requirements across all airspace categories.
- Despite some States achieving high compliance, inefficiencies remain, particularly in Category S and T airspaces where separation exceeds ICAO's 5NM standard.

3.21 **Challenges and Recommendations included the following;**

- Efficiency Improvement: There is an urgent need to adopt ICAO's Project 30/10 for optimising longitudinal separation to alleviate traffic congestion.
- Regulatory Updates: States should revise ATC Letters of Agreement (ATS LOAs) to enforce 5-10NM separation at FIR TOC points.

- Training and Human Performance: Enhancing ATC personnel skills through targeted training in tactical, surveillance-based separation is crucial.
- Environmental Impact: Reducing aircraft spacing not only boosts efficiency but also lowers fuel consumption and emissions, aligning with ICAO's carbon reduction goals.

Effects of Increased Westbound Transit Traffic through Afghanistan Airspace on Pakis (Flimsy02)

3.22 This presentation by Pakistan focuses on the impacts of increased westbound transit traffic through Afghanistan airspace on Pakistan. It details the background, contingency routes, concerns, and offers recommendations to address the issues.

3.23 In 2021, Afghanistan suspended air traffic services in Kabul FIR, making it uncontrolled. Airlines initially avoided it, but due to the Middle East geopolitical situation in 2024, they shifted back to contingency routes in Kabul FIR, increasing traffic. Pakistan's ATS units faced complexities as they had to ensure aircraft met procedures like 15-minute longitudinal separation and vertical restrictions before entering Kabul FIR. This led to a rise in ATC workload which can lead to flight safety hazards if not mitigated, as well as delays, fuel consumption, and carbon emissions. Data shows a significant increase in traffic at various points from 2023 - 2024, along with flight delays at entry points.

3.24 To alleviate these problems, the Pakistan Airports Authority recommends making lower flight levels available over certain points, asking airlines to plan for delays and meet vertical restrictions, and resuming BOBCAT ATFM procedures at all entry points to Kabul FIR. These measures aim to improve air traffic management, enhance flight safety, and reduce the negative impacts caused by the increased traffic.

Agenda Item 4: Implementation of CNS-ATM Systems

Regional Air Navigation Plan Update (WP09)

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 1 and Figure 2, especially those not yet included in the ANP.

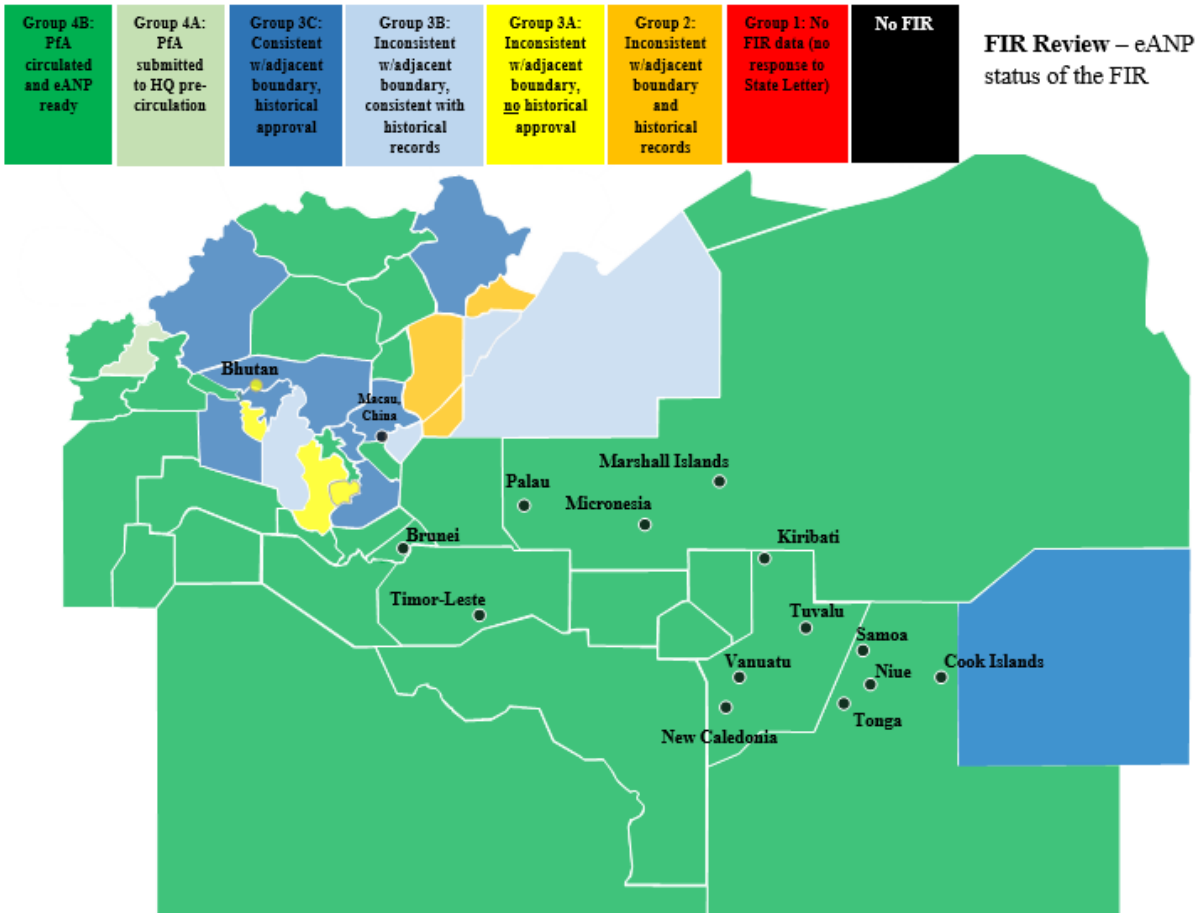

Figure 1: FIR Review Status, as at Feb 2025

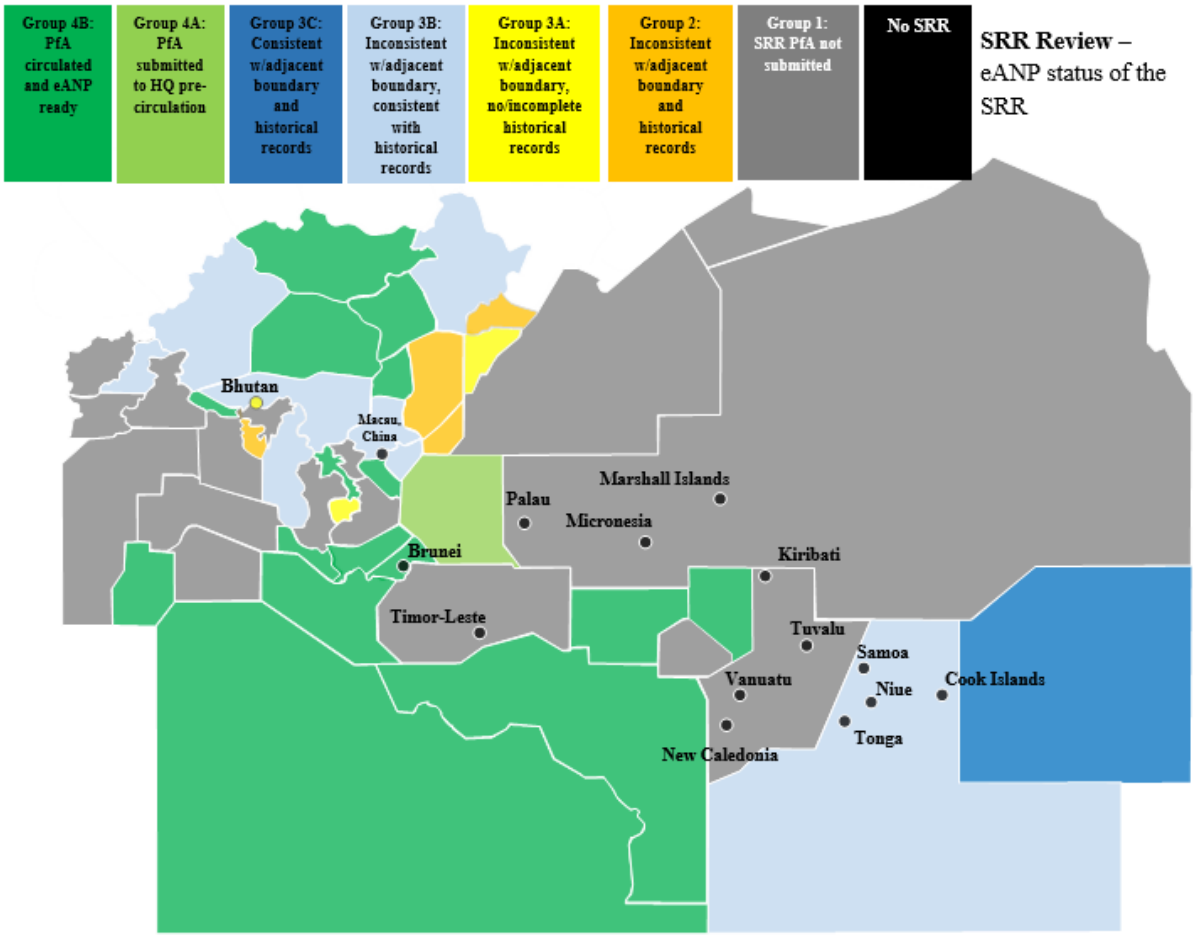

Figure 2: SRR Review Status, as at Feb 2025

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4.3 For those PfAs that were pending for some time, states may submit their PfA again with updated information supported by recent evidence of agreement with adjacent States.

Implementation of PBCS-Based Separation in Oceanic Airspace in Chennai FIR(WP10)

4.4 India updated on the commencement of trial operations of application of PBCS-based separation minimum on ATS route N571 in the oceanic airspace of Chennai FIR. The trials commenced on 04/02/2025.

4.5 The details of changes in the conditions of the trial are as follows:

a) The trials would be initially limited to Chennai Oceanic airspace on N571;
b) Vertical limits of application will be RVSM band ;
c) Application of both 30Nm & 5min on opportunity basis;
d) No restriction on non-PBCS compliant aircraft during the trials;
e) Increase in the area of application from AGELA – IGOGU (approx. 02:40 hrs.) from the initial project of IDASO – IGOGU (approx. 01:32 hrs.).

4.6 The pre-implementation process consisted of the analysis of the flight plan equipage for a

period of one month (January 2025). The details of the analysis based on flight plan equipage indicated nearly 60% were PBCS compliant.

4.7 For the trial, two main challenges are faced. Firstly, the restricted distance of application on either side of the ATS route N571 limits the benefits that airlines can obtain. Thus, Malaysia and Oman are encouraged to participate in the trials of this route as early as possible. This can assist controllers in better handling traffic and enable airlines to utilise onboard avionics to reach near-optimal levels. Secondly, there is a mismatch between flight plan data and actual flights. Some flights had ADS-C/CPDLC connections during operation, but this was not indicated in the flight plan. Moreover, due to other issues, the system flagged these flights as non-compliant with PBCS. Such cases will be further collated during the trial period and actively addressed.

4.8 The discussion is focused on the Central Report Agency (CRA) issue, which is the biggest concern on the Malaysian side. India suggested that while awaiting to find an appropriate CRA, Malaysia could start the trial of implementing 30 NM PBCS-based separation in parallel. ICAO also suggests that Malaysia should address CRA problems through the FIT-Asia Meeting. IATA noted that the reporting issue had been first raised at ATMSG11 in 2023, and still no resolution, so based on the discussion today, the trial should commence as soon as possible.

4.9 In response, Malaysia confirmed that they would initiate the trial as early as August 2025.

Trial Operation on Application of 20nm Longitudinal Separation Using Space-Based ADS-B and CPDLC (WP11)

4.10 India introduced various aspects of the implementation strategy of reduced longitudinal separation of 20NM using Space-Based ADS-B surveillance and CPDLC communication in the oceanic region of Mumbai FIR and related issues.

4.11 The post-pandemic air traffic in India's ATS airspace has grown significantly, especially in the oceanic region of Mumbai FIR. Facing challenges in capacity and efficiency due to the limited use of Afghanistan airspace, India has been conducting a trial operation since 2022. The trial aims to reduce the longitudinal separation to 20 NM between eligible aircraft on routes L301 and L639 in Mumbai FIR. It utilises space-based ADS-B surveillance and CPDLC communication, a new separation method introduced by ICAO in the 9th edition of PANS - ATM for areas where VHF voice communication is unavailable.

4.12 The trial operation was a complex process. Initially planned for the last quarter of 2022, it started on January 15, 2024, for eastbound aircraft only, as Oman was not ready to participate at first. The trial timings were adjusted multiple times to find more eligible aircraft pairs. After Oman agreed to participate on August 14, 2024, the trial was extended to east- and west-bound flights. Operational observations showed that the number of eligible aircraft was 53% for L639 and 52% for L301. No safety occurrences were reported during the trial. However, issues like intermittent target drops in SADS-B returns were encountered, and AAI is working with Aireon to solve this problem. Controllers believed the trial benefited airlines and made traffic flow smoother, and they thought full fleet compliance could transform oceanic airspace operations.

4.13 As the next step, AAI plans to make the 20NM separation on routes L301 and L639 permanent, awaiting the regulator's approval. It also intends to extend this separation to other routes in Mumbai FIR and then in Chennai and Kolkata FIRs in a phased manner. Additionally, AAI proposes new RNP routes with the help of DGCA, ICAO APAC, and MID regions to enhance oceanic airspace operation capacity and efficiency.

Update on the Amendment Concerning Separation Minima Based on an ATS Surveillance

System to The PANS-ATM (Doc 4444) (IP03)

4.14 ICAO introduced the amendment related to separation minima based on an ATS surveillance system. It allows aircraft to deviate from fixed routes, reducing the risk of closely-spaced aircraft on the same track. This also simplifies controllers' management of weather diversions. Financially, the impact on States is negligible as most oversight issues already exist. For the industry, air navigation service providers may face costs for system upgrades, data purchases, personnel training, and documentation updates. However, operators may see an overall cost decrease due to reduced fuel costs from optimal flight levels.

4.15 The amendment affects specific paragraphs in PANS - ATM, such as 8.7.3.3 and 8.7.3.3.1, and related guidance material in Doc 10116 is in the approval process and will be published by Q2 2025.

Separation Minima Using ATS Surveillance Systems Where VHF Communication Systems are Not Available (Flimsy01)

4.16 To coincide with WP11 and IP03, India gave a presentation on implementing surveillance services without VHF voice communication. It covers the new ICAO separation minimum standards, their application conditions, and the required flight plan details. The implementation strategies, benefits like capacity boost and fuel savings in Indian airspace, and issues in fleet eligibility are discussed. A solution for identifying eligible aircraft in the ATM automation system is also proposed.

Procedure and Implementation Strategy for Parallel Operation of New Aerodrome Control Tower at Kolkata Airport (IP04)

4.17 India introduced the procedure and implementation strategy for the operationalisation of a new aerodrome control tower at Kolkata, India, with the augmentation of existing Automation System software to include six new additional positions at the New Aerodrome Control Tower.

Agenda Item 5: ATS Route Developments

Addressing Capacity Constraints on ATS Routes L642 and M771 During Large-Scale Weather Deviation (LSWD) Events (WP12)

5.1 Singapore proposed a review of the longitudinal spacing between aircraft when Large-Scale Weather Deviation (LSWD) procedures are activated on ATS route L642 and M771 to minimise disruption to air traffic flow while ensuring air navigation safety by making use of surveillance capabilities in the region.

5.2 The Large-Scale Weather Deviation (LSWD) procedure for ATS routes over the South China Sea was developed based on RNP10 navigation performance. With the enhancement of communications, navigation, and surveillance (CNS) in the region, this paper proposes a review of the longitudinal spacing between aircraft on ATS routes L642 and M771 during LSWD events. These two routes are part of the busy parallel route structure over the South China Sea, and the current LSWD procedures face challenges that need to be addressed.

5.3 The existing LSWD procedures face several issues. To avoid traffic conflicts when aircraft deviate more than 10 NM from the route centreline to evade bad weather, the number of available Flight Level Allocation Scheme (FLAS) levels is reduced by 50%, and the longitudinal spacing between aircraft may be increased from 20 NM to 50 NM. This leads to a 75% or more reduction in capacity,

increased operational complexity, higher ATC workload, and a higher risk of safety occurrences like Large Height Deviation (LHD). Moreover, short-notice activation of LSWD procedures causes both extensive airborne and ground delays and sub-optimal flight-level assignments, which increases fuel burn. In response, it is proposed that instead of reverting to default procedural separation at FIR boundaries during LSWD, ATS units could consider applying a more optimal measure in a surveillance environment. An initial 10NM buffer (i.e., 30NM spacing) could be adopted, and if sustainable, the buffer could be removed entirely to retain the 20NM longitudinal spacing.

5.4 The proposal was supported by China, Hong Kong China, Indonesia and IATA. Meanwhile, Vietnam informed the meeting that further safety assessments were needed before the buffer could be reduced. China recommends that all concerned States and Administrations along routes L642 and M771 participate in the trial to maintain consistency in overall traffic flow. Singapore clarified that the proposal was not to conduct a separate trial specifically for the use of 30NM longitudinal spacing. Instead, it is for States/Administrations to apply 30NM longitudinal spacing whenever LSWD is being activated.

5.5 Additionally, China proposed that the current operational trial reduce the handover longitudinal spacing from 50NM to 20NM on routes L642 and M771, which should be extended to 24 hours before the 13th SCSTFRG meeting. This trial, which extends beyond the current limited daytime hours, would run for several days, followed by a safety assessment. Based on the assessment results, discussions at the upcoming SCSTFRG/13 meeting could determine whether to continue implementing the reduced 20NM longitudinal spacing. Singapore supplemented that the longitudinal spacing between Ho Chi Minh and Singapore FIRs is 20NM.

5.6 As proposed by Singapore, the ***Decision SAIOSEACG/4-1 − SOUTH CHINA SEA LARGE SCALE WEATHER DEVIATION PROCEDURES*** was adopted by the meeting. The Chair welcomed the initiative to reduce the additional buffers along the routes when LSWD procedures are active, especially when the thunderstorm season is about to come. The Chair suggested that Singapore lead the initiative and report the outcome to the upcoming SCSTFRG/13 meeting, and Singapore agreed.

Asia/Pacific Region ATS Route Catalogue (WP13)

5.7 This meeting provided an update on the Asia/Pacific (APAC) Region ATS Route Catalogue, which tracks the status of air traffic service (ATS) route proposals. The key updates of the Catalogue were discussed as follows;

- **Prioritization of Route Proposals**: The updated Catalogue focuses on route proposals with the highest short- to medium-term benefits. Unfeasible proposals are archived for future consideration, and ANSPs are encouraged to explore partial solutions where full implementation is not possible.
- **Regional Coordination & Route Developments**: Updates included Malaysia's circulation of a draft Proposal for Amendment for feedback, highlighting collaborative efforts such as Malaysian airlines' readiness for RNAV2/RNP4 specifications, and ongoing route collaborations between Vietnam and China. Progress also included Thailand's PfA submission to ICAO and Malaysia's discussions with Indonesia regarding routes SCS 19 and SCS 20.
- **Addressing Traffic Growth & Constraints**: Rising air traffic demand and geopolitical issues, such as the Russia-Ukraine conflict, have intensified airspace constraints. ICAO is collaborating on optimising ATS routes, reducing congestion, and establishing new FIR entry/exit points around areas like across Europe, Central Asia, and Asia-Pacific.

5.8 The discussion among the ATS route proposals was recorded as follows:

- **SCS11:** IATA proposed deleting the additional proposal to further connect the IPRIX and VIGEN in order for the counter-proposal from Vietnam to be progressed without further delay.
- **SEA12**: As proposed by ICAO, IATA agreed to archive the proposal as the main focus is on the parallel routes to A1. IATA noted that in the absence of an A1 parallel route progressing, this proposal will be reactivated.
- **Mekong 01:** VPH – ROT – PNH Route Development (Cambodia –LAO PDR-Thailand – Viet Nam). The relevant States agreed to the design principle of the ATS route to be implemented as an RNAV2 CDR with the MFA of FL270 and would continue with implementation planning in due course.

5.9 New ATS Route Proposals to be included in the *APAC ATS Route Catalogue Version 24.3* were listed as follows:

- **Mekong 02**: Connecting NAN – SAGAG (Lao PDR – Thailand), is to be included in the *APAC ATS Route Catalogue* as requested by MKATMCG.
- **Mekong 03**: Connecting BASIT – UPNEP (Cambodia – Thailand – Viet Nam), is to be included in the *APAC ATS Route Catalogue* as requested by MKATMCG.
- **BOB 03:** BIMT Phase 2b (Myanmar – Thailand Route Development) aims to further optimise air traffic flows between Myanmar and Thailand. The route will be Performance-Based Navigation (PBN) (RNAV2 or RNAV10), but a conventional ATS route (G473 – MAKAS) will still be available for flights not equipped for PBN operations. Myanmar and Thailand agreed to continue implementation efforts, recorded as Conclusion BIMT/8-1.
- **RDGE-TRANS-REGIONAL MID-ASIA 01:** Transfer from the *Middle Asia ATS Route Catalogue* as agreed by relevant States.
- **RDGE-TRANS-REGIONAL MID-ASIA 02:** Transfer from the *Middle Asia ATS Route Catalogue* as agreed by relevant States.
- **RDGE-TRANS-REGIONAL MID-ASIA 05:** Transfer from the *Middle Asia ATS Route Catalogue* as agreed by relevant States.
- **RDGE-TRANS-REGIONAL MID-ASIA 08:** Transfer from the *Middle Asia ATS Route Catalogue* as agreed by relevant States.

5.10 The *APAC ATS Route Catalogue Version 24.3* is appendixed as **Attachment C** of this Final Report.

Coordination of Proposals from RDGE-SCM/2024 on ATS Routes in the Interface Area Between the ICAO EUR and APAC Regions (WP14)

5.11 This meeting highlighted the outcomes of the Special Coordination Meeting of the Route Development Group – Eastern Part of the ICAO EUR Region (RDGE-SCM/2024), held in Tashkent, Uzbekistan, from November 5-8, 2024. The meeting focused on ATS route development, addressing rising air traffic volumes, airspace complexity, and air traffic controller workload. Several new route proposals were identified, requiring coordination between the ICAO EUR and APAC regions.

5.12 **Rising Traffic & Operational Challenges:** ATC sectors in the region have seen up to 30% growth in traffic due to airspace closures over Afghanistan, Belarus, Moldova, Russia, and Ukraine. States discussed airspace improvements, new ATS routes, and airport developments in Azerbaijan, Georgia, and Uzbekistan. Progress in OLDI (On-Line Data Interchange) connections was also reviewed.

5.13 **ATS Route Development:** Of 68 ATS route proposals in the Middle Asia ATS Route Catalogue, 7 have been implemented, and 15 new proposals were approved. In the Far East Area ATS Route Catalogue, 4 proposals were implemented by the Russian Federation, but further progress was delayed due to a lack of feedback from APAC States.

5.14 **APAC Region Coordination Needed:** New ATS routes involving China and Mongolia were proposed by Kazakhstan, Kyrgyzstan, and Uzbekistan to manage increasing ATC workload and improve safety. Proposed new FIR boundary entry/exit points with China aim to ease congestion.

5.15 **High-Priority Route Proposals:** Several Priority A ATS routes require APAC coordination, including:

- New eastbound routes between Kazakhstan and China (Almaty & Urumqi FIRs) to reduce congestion, backed by major airlines such as ANA, KLM, EgyptAir, and Finnair.
- New bidirectional routes between Kyrgyzstan and China, including an Osh-Kashi connection.
- New bidirectional routes from Uzbekistan aimed at reducing distance, fuel burn, and ATC workload while improving traffic flow.

5.16 China thanked the ICAO European and North Atlantic Office for sharing the relevant information. And informed the meeting that on March 17, China and Kazakhstan held a side meeting in Beijing, with an in-depth discussion on a technical level. Both the Chinese and Kazakh sides will maintain close contact to jointly promote the smooth and efficient operation of flights between Europe and the Asia-Pacific region. The main proposals to be included in the ATS route catalogue require further study and determination by both China and Kazakhstan and will be submitted at an appropriate time.

5.17 Meanwhile, China also mentioned that a breakthrough has been made in establishing new air entry and exit points between China and Kyrgyzstan. The relevant work was steadily advanced and once implemented, it will provide more airway options for flights travelling between East Asia and Europe.

5.18 As the result of discussion during the meeting, The ***Decision SAIOSEACG/4-2: Coordination of ATS Route Proposals from the RDGE-SCM/2024 between the ICAO EUR and APAC Regions*** *was* adopted by the SAIOSEACG.

Proposal on New ATS Routes to Increase Airspace Capacity Between EU and East Asia (WP15)

5.19 In this meeting, IATA highlighted the surge in air traffic over Western China and Central Asia, driven by geopolitical conflicts and inefficient ATS routes. With Europe-Asia flights now concentrated in this corridor, infrastructure struggles to keep pace, causing congestion, delays, and operational inefficiencies. IATA and airlines urged States and Air Navigation Service Providers (ANSPs) to take urgent action by implementing new ATS routes, adding entry/exit points, and accelerating Free Route Airspace (FRA) adoption. They shared main thoughts as follow;

5.20 **Key Issues:**

- Rising Air Traffic & Infrastructure Strain: Some FIRs have seen over 500% traffic growth between 2022-2024, overwhelming existing airport and ATM infrastructure. ATC workload has surged, and planned upgrades (e.g., ZWWW runway expansion in 2025) are underway.

- Airline Operational Challenges: Route closures, congestion, high terrain constraints, and inefficient routing increase delays, fuel burn, and emissions.
- Proposed New ATS Routes: IATA analyzed two optimized routes in the ZWUQ and ZMUB FIRs, aimed at reducing fuel consumption and emissions.

5.21 **Expected Benefits:**

- Improved efficiency for Europe-Asia flights with lower fuel consumption and emissions.
- Alternative routes to mitigate congestion and airspace closures.
- Reduced ATC workload by distributing traffic more effectively.
- Greater flexibility in flight planning to adapt to operational disruptions.

5.22 IATA calls for swift coordination among States and ANSPs to implement these measures and ensure the region's airspace remains efficient and resilient.

5.23 China thanked IATA's efforts in facilitating smooth air traffic flows between Europe and East Asia. They stated that China is currently undertaking a parallelisation for the ATS route W66, which connects Beijing and Urumqi.

5.24 China also mentioned that IATA is planning to carry out a comprehensive study on the EU-East Asia interface, which will focus on improving the airspace capacity and efficiency and also have the forecast of traffic demands between regions. Based on analysis from IATA, China will do the relevant assessment work. In response to that, IATA confirmed that they would share the necessary information with China to support the assessment.

Progress of the Bangladesh, India, Myanmar, Thailand (BIMT) Meeting (WP16)

5.25 The paper reviewed the eighth meeting of the Bangladesh, India, Myanmar, and Thailand ATM Coordination Group (BIMT), which reconvened in November 2024 in Bangkok after a pandemic-induced hiatus. Delegates from Bangladesh, Myanmar, and Thailand, but not India, discussed ongoing projects and developments in air traffic management (ATM) and air traffic service (ATS) route development within the Bay of Bengal area. Key outcomes included advancing the BIMT ATS route development project, launched in 2016, to enhance airspace capacity by creating parallel route structures from Bangkok FIR into Kolkata and Dhaka FIRs through Yangon FIR.

5.26 The meeting focused on Phase 2b of the route development, addressing GNSS interference and implementing Performance-Based Navigation (PBN) routes while maintaining conventional route options. Agreements were made to continue developing the Phase 2b route between Bangkok and Yangon FIRs, with calls to include this route in the Asia/Pacific Region ATS Route Catalogue for tracking progress. Discussions on full Phase 2 implementation, which would connect Thailand with India's northern region, were postponed due to India's absence.

5.27 Other discussed matters included air traffic flow management updates, ATS developments over Kabul FIR, and various operational and coordination challenges. The meeting concluded with recommendations to formally document the Phase 2b route in the regional ATS Route Catalogue and further discussions on comprehensive BIMT route implementations.

5.28 India stated that the route proposal requires some analysis. The information on proximity to Bangladesh Danger areas, the route spacings and the navigational specifications of the route, fleet capabilities, the growing GNSS RFI on L507 and the contingency measure, the effect of new routes on domestic routes and SID/STARs have to be taken into account by India for the analysis. Realignment of P646 may also create a problem for Myanmar as the convergence of P646 and N895 at PTN would

have an angle of less than 15 degrees. Therefore India suggested that the proposal would be discussed in the next BIMT with all the involved states. India also welcomed the revival of the BIMT group and stated that they would coordinate with the administration to host the next BIMT meeting in India.

5.29 The route proposal BIMT Phase 2b (Myanmar – Thailand Route Development) aims to further optimize air traffic flows between Myanmar and Thailand. As requested by the relevant States, the route will be included in the *APAC ATS Route Catalogue Version* 24.3 as BOB 03.

Progress of the Mekong ATM Coordination Group (MKATMCG) Meeting (WP17)

5.30 Cambodia, Lao PDR, Myanmar, Thailand, Viet Nam jointly presented the outcomes of the 10th Mekong ATM Coordination Group Meeting (MK-ATM/CG/10) held on 27 – 28 November 2024 in Bangkok, with particular focus on outcomes related to ATS route development.

- **LPB – ELASU (Lao PDR – China)** : China had informed Lao PDR and Thailand that the route design was being evaluated before further discussion during a trilateral meeting in the first half of 2025.

- **NAN – SAGAG (Lao PDR – Thailand):** This has been agreed on in principle. As requested by relevant States, the route will be included in the *APAC ATS Route Catalogue Version 24.3* as **MEKONG 02**.

- **MEKONG 01:** VPH – ROT – PNH Route Development (Cambodia –Lao PDR-Thailand – Viet Nam). The relevant States agreed to the design principle of the ATS route serving traffic between VPH – ROT – PNH to be implemented as an RNAV2 CDR with the MFA of FL270 and would continue with implementation planning in due course.

- **TUNPO – BASIT – UPNEP Route Development (Cambodia – Thailand – Viet Nam):** the design principle of the route was agreed among relevant States with a 2-phase implementation plan. As requested by the relevant States, the route segment BASIT – UPNEP will be included in the *APAC ATS Route Catalogue* Version 24.3 as **MEKONG 03**.

- **VILAO – SEKON – TSH (Cambodia, Lao PDR and Viet Nam):** It was noted that this proposed route would create crossing points with the existing A1 and A202 as well as the parallels to them should they be implemented, and that careful consideration and traffic analysis would be required.

Proposal for Advancing Parallel Route A1 Implementation with the Background of China Upper ATS Routes Network Planning (WP18)

5.31 China presented an analysis of the necessity and feasibility of establishing parallel routes for ATS Route A1, aiming to address the increasing air traffic challenges in Asia-Pacific. The A1 route, a crucial air corridor between Southeast Asia and Northeast Asia, witnessed rapid traffic growth before 2019, with daily peak operations reaching about 600 flights in 2019. Traffic volumes have been rebounding since 2024 and are expected to match or exceed 2019 levels in 2025. The proposal for parallel routes along A1 is part of China's Upper ATS routes network planning, which is essential for regional civil aviation development.

5.32 The current challenges of Route A1 include rapid traffic growth, limited flight levels, traffic concentration during peak periods, structural changes in traffic flow, a complex operational environment, and the limitations of tactical solutions. In terms of planning progress, there was a consensus on the necessity of parallel routes, but differences remain in specific alignment details. The

proposed solution within Sanya FIR is to establish southwest-bound (SYT13 - BUNTA) and northeast-bound (ITBAM - IKELA) parallel unidirectional routes, adopting the RNAV2 navigation standard.

5.33 It is recommended by China that under the guidance of ICAO, stakeholders develop an implementation roadmap. This includes reaching a consensus on the parallel route configuration by 2025, conducting safety evaluations and starting trial operations in 2026, and achieving formal operation of the parallel routes in 2027. Stakeholders should also collaborate to address critical operational details.

5.34 The proposal from China was supported by Hong Kong China, Thailand and Lao PDR。

5.35 China also encourages relevant States and Administrations to closely monitor the rapid growth of traffic on ATS route A1 and expedite the parallel route optimisation process. China will collaborate with the concerned States and Administrations to advance this initiative and will submit further working papers on this topic at the ATM/SG13 meeting.

5.36 The Chairman welcome the proposed roadmap to facilitate the implementation of the parallel route to A1. He reminded the meeting that this is the SCS Priority Task 1, which had been discussed for a very long time. He suggested that Vietnam send representatives to attend the upcoming SCSTFRG/13 meeting to update the implementation of the parallel route to A1. In parallel, China may consider submitting the proposed roadmap to the upcoming ATM/SG and APANPIRG meetings as well as the DGCA Conference to raise the awareness of high-level authorities.

5.37 ~~Viet Nam informed the meeting about the CAAV's intention about the establishment of the parallel route to A1.~~

Challenges in the Northern Part of Mumbai Oceanic Airspace and Proposed Solutions (IP05)

5.38 The air traffic in the Mumbai Oceanic Control unit's airspace has been growing significantly. Currently, two major problem areas exist. Firstly, flights from Africa to South Asia using Route P751 cause congestion in the northern half of the airspace. Secondly, multiple routes (L894, L516 from Male FIR and P570 from Chennai FIR) converge at KITAL, reducing the availability of efficient flight levels and leading to inefficient airspace utilisation.

5.39 To address these problems, several solutions are proposed. For the congestion caused by African-South Asia flights on P751, part of the traffic can be diverted to P323 - GIDAS to DONSA and then use G450 to enter Mumbai TMA. Also, UPRs in the southern part of the airspace can be utilised. Regarding the congestion at KITAL, a new route starting at ASPUX on the MUSCAT/MUMBAI FIR boundary and passing south of BIBGO can be created. IATA will socialise the route proposals with member airlines and provide feedback.

5.40 About the new route proposal and decongestion of P751 and waypoint KITAL in the Mumbai Oceanic area, India sought advice from ICAO about the process of submission of the proposal as two regions, MID and APAC of ICAO, are affected. ICAO suggested India first discuss the proposal with neighbouring states in the MID Region and Maldives and then approach ICAO to include the route proposal in the *APAC ATS Route catalogue*.

Agenda Item 6: ATM Contingency Plans and Search and Rescue

Update on ATM Contingency Plans and Search and Rescue in the Asia-Pacific Region

(Flimsy 03)

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 co-lead of the Asia and Pacific ANSP Committee (AAC) Work Stream 3 updated the meeting on the ATM Contingency Plans and Search and Rescue in the Asia-Pacific Region.The Flimsy summarizsed the activities, achievements, and future directions of the WS3 group within the Asia and Pacific ANSP Committee regarding ATM contingency plans and related matters. It emphasised the importance of international cooperation and continuous improvement in air traffic management contingency measures in the Asia-Pacific region.

6.3 WS3 has completed several key tasks. It reviewed and edited regional guidance material on baseline operational contingency procedures, developed a regional 'How To' document for coordination procedures, and collaborated on developing or reviewing operational contingency plans for individual APAC ANSPs. The business continuity and contingency plans for oceanic ANSPs were incorporated into the draft regional ATM contingency framework. WS3 also agreed to support ICAO in advancing the draft APAC Regional Contingency Framework/TTX, and plans to exercise regional operational contingency plans through table - top exercises in 2025.

6.4 There is an ongoing discussion on finding an ideal electronic platform for sharing operational contingency plans. CADENCE was proposed, but the response was not enthusiastic, so the possibility of using the ICAO APAC platform as an alternative is being explored. This effort aims to enhance the efficiency of information sharing and cooperation in the region's air traffic contingency management.

6.5 The SAIOSEACG ANSPs wish to join the Asia and Pacific ANSP Committee (AAC) and its subsidiary four Work Streams could contact the Chief of ICAO Regional Sub-office Raphael Guillet at rguillet@icao.int.

Agenda Item 7: ANSP Coordination and Civil/Military Cooperation

Update on Civil-Military Cooperation in ATM (WP19)

7.1 ICAO presented information on the issues and initiatives of Civil-Military Cooperation (CMAC) in ATM in the Asia and Pacific Region.

7.2 The APANPIRG/34 Meeting adopted Conclusion APANPIRG/34/1 - APAC Regional Seamless ANS Reporting Form 3.0 and Cloud-based Seamless ANS Implementation Progress Reporting. The new Seamless ANS Reporting Portal was launched in 2024, with States required to report implementation progress by specific deadlines. By March 1st, 2025, 17 States/Administrations had submitted updated implementation progress reports on CMAC through the new portal. Records of CMAC implementation progress before 2023 for 14 States/Administrations could be found on the previous reporting platform. States yet to provide updated CMAC status reports via the new portal are reminded to do so, and any updates received during the SAIOSEACG/4 meeting will be included in the meeting report.

7.3 Based on the implementation progress reported by the States/Administrations, the overall implementation status of the Region on the 6 CMAC elements in the APAC Seamless ANS Plan are as follows:

Reporting Item	Fully Implemented	In Progress
ASBU - FRTO B0/1 to B0/4 (Priority 1)	10	4
ASBU - FRTO B1/1 to B1/7 (Priority 2)	0	5
Regional – C/M SUA management (Priority 1)	15	3
Regional – C/M strategic and tactical coordination (Priority 1) *	15 / 17	2
Regional – C/M common procedures and training (Priority 2)	11	3
Regional – C/M integrated systems and facilities (Priority 2) **	8 / 9	2

7.4 Referring to the three priority items, the overall implementation progress is rather slow and partial to reaching the goals of ASBU and regional priorities in line with the target time. Meanwhile, it is also worth noting that the implementation progress in the Region is of huge diversity among States in regard to the implementation maturity.

7.5 It was also introduced by ICAO that ICAO APAC RSO is planning to hold an on-site workshop on enhanced CMAC and FUA implementation for the Region in Q3 2025 with the support of ICAO EUR/NAT Office. This interactive event is planned to provide the States/Administrationswith practical guidance presentations, tabletop exercises and case studies covering subjects including but not limited to the establishment of high-level framework, joint civil-military AMC and coordination procedures, FUA airspace structure design and publication, safety assessment, operational performance evaluation, interoperability between civil military systems, etc. Participants from both the civil and military sides are welcome to the Workshop. APAC States/Administrations are invited to share their experiences. For further information, contact the ATM Regional Officer, Ms. Zhang Ying, at yingzhang@icao.int.

Strengthening Cross-FIR Collaboration to Enhance Regional Operational Efficiency (WP20)

7.6 China presented a strategy to strengthen cross-FIR collaboration and enhance regional operational efficiency in Southeast Asia. It details how harmonising operational procedures, reducing handover separation margins, implementing AIDC and optimising ATFM measures can address the growing challenges of increasing air traffic and adverse weather conditions.

7.7 The discussion section covers multiple aspects. Parallel route planning along A1 is crucial due to increasing traffic. AIDC between Sanya and Hanoi ACC has brought benefits but also faces issues. Reduced transfer separation trials on L642/M771 have improved efficiency and further research on A1/A202 aims to increase capacity. A "notification-based" process can enhance airborne rerouting efficiency. Information sharing for diverted flights and coordination on lateral deviations near handover points are also important. Additionally, optimising ATFM measures can reduce controller burden.

7.8 The Chairman reminded the meeting to focus on the SCS Priority Areas with the aim of extending the trial of 20 NM spacing on L642/ M771 and reaching a consensus on China’s proposed roadmap for the implementation of the parallel route to A1 as soon as possible.

Agenda Item 8: Review of SAIOSEACG Task List

Review of SAIOSEACG Task List (WP21)

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 (WP22)

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

ATM Performance Monitor Tool (Flimsy03)

8.3 IATA introduced it's ATM Performance Monitor tool, which is designed for collaboration between airlines and ANSPs. It has three modules: Air Traffic Forecast by Country, which uses economic models and data to project traffic growth for long-term planning; ATM Performance Benchmark, which assesses operational performance against targets using KPIs related to flight efficiency and the environment; and Flight Efficiency Illustrator, which identifies environmentally efficient routes and conducts comparative analysis. The tool aims to enable data-driven decision-making, improve operational efficiency, support sustainability goals, and streamline compliance reporting.

Background of a Flight Plan (Presentation 02)

8.4 IATA (represented by KLM) presented a Flight Plan background, offering ANSPs a view from the perspective of airspace users.

8.5 Flight planning at KLM is significantly influenced by various external factors. Political conflict zones and airspace closures can disrupt normal routes. Flight dispatchers make route choices considering multiple factors like time, costs, wind, temperature, available routes, flight levels, and en-route airport closures. They analyse different scenarios, such as checking weather en - route, making ETOPS choices, and optimising vertical profiles. Airlines need more flexibility to enhance efficiency and move towards the Net Zero goal. This includes promoting direct routes, introducing UPR or FRA, and having contingency routes. Collaboration between ANSPs and airlines is crucial to achieve these goals and reduce emissions, aiming for zero-carbon aviation by 2050.

Closing and the Next Meeting

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