INTERNATIONAL CIVIL AVIATION ORGANIZATION

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REPORT OF THE FOURTEENTH MEETING OF THE ATM SUB-GROUP OF APANPIRG (ATM/SG/14)

BANGKOK, THAILAND, 3 – 7 AUGUST 2026

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

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

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INTRODUCTION

Meeting

1.1 The Fourteenth Meeting of the Air Traffic Management Sub-Group (ATM/SG/14) of the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG) was held from 3 to 7 August 2026 at the Kotaite Wing of the ICAO Asia and Pacific (APAC) Office in Bangkok, Thailand.

Attendance

2.1 The Meeting was attended by 113 registered participants (6 online and 107 in-person) from 24 States, two Special Administrative Regions of China and five International Organizations, including Australia, Bhutan, Cambodia, China, Hong Kong China, Macao China, Fiji, India, Indonesia, Japan, Lao People's Democratic Republic (PDR), Malaysia, Maldives, Mongolia, Nepal, New Zealand, Pakistan, Philippines, Republic of Korea, Singapore, Solomon Islands, Sri Lanka, Thailand, the United Kingdom, the United States, Viet Nam, IATA, ICCAIA, IFALPA, IFATCA and ICAO.

2.2 A list of participants is provided at **Appendix A** to the Report.

Officers and Secretariat

3.1 Mr. Vincent Hwa, Director of Air Traffic Services, Civil Aviation Authority of Singapore presided over the ATM/SG/14, as Chairperson.

3.2 Mr. Hiroyuki Takata, Regional Officer Air Traffic Management (ATM) and Mr. Mior Adli Bin Mior Sallehhuddin, Regional Officer ATM, ICAO Asia and Pacific (APAC) Office, were the Secretaries for the Meeting. They were assisted by Dr. Trish Prakayphet Chalayonnawin, Programme Analysis Associate ATM.

3.3 The Meeting was also supported by Ms. Ying Zhang, Deputy Chief, Mr. Manjunath Krishna Nelli, Regional Officer ATM, Mr. Liu Yonggang, Regional Officer ATM, and Mr. Irwandi Krinata, Regional Officer Performance-Based Navigation (PBN), ICAO APAC Regional Sub-Office.

Language and Documentation

4.1 The ATM/SG met as a plenary throughout the Meeting. The working language of the meeting was English for all documentation and this Report. A total of 47 Working Papers (WPs), 19 Information Papers (IPs), two Flimsies and eight Presentations (SPs) were considered by the Meeting.

4.2 The list of working and information papers is at **Appendix B** to the Report.

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 or the ATM/SG concerning the legal status of any country, territory, city or area of its authorities, or concerning the delimitation of its frontiers or boundaries.

Opening of the Meeting

Chairperson of ATM/SG

5.1 Mr. Vincent Hwa welcomed participants to the Meeting.

ICAO APAC Office

5.2 On behalf of Mr. Tao Ma, Regional Director of the ICAO APAC Office, Mr. Subash S., Deputy Regional Director of the ICAO APAC Office welcomed all the participants to the Meeting.

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Draft Conclusions, Conclusions, Draft Decisions and Decisions of ATM/SG – Definition

6.1 The ATM/SG recorded its actions in the form of Draft Conclusions, Conclusions, Draft Decisions and Decisions within the following definitions:

a) **Draft Conclusions** of the ATM/SG relate to matters that are not just of a purely technical or operational nature, which need to be considered by APANPIRG;

b) **Conclusions** of the ATM/SG relate to matters of a purely technical or operational nature, which APANPIRG had delegated authority to ATM/SG to act upon;

c) **Draft Decisions** relate solely to matters dealing with the internal working arrangements of the ATM/SG, which need to be considered by APANPIRG; and

d) **Decisions** of the ATM/SG that relate solely to matters dealing with the internal working arrangements of the ATM/SG, which APANPIRG had delegated authority to ATM/SG to act upon.

List of Draft Conclusions, Conclusions, Draft Decisions and Decisions

7.1 List of Draft Conclusions

Draft Conclusion ATM/SG/14-2: Adoption of Revised APAC Air Navigation Plan Volume III	
What: That, in accordance with *APANPIRG Conclusion 36/2,* the revised *APAC Air Navigation Plan Volume III* provided in **Appendix D** to the Report be adopted, and published on the ICAO APAC Office ANP webpage.	Expected impact: ☐ Political / Global ☐ Inter-regional ☐ Economic ☐ Environmental ☒ Ops/Technical
Why: To incorporate changes from GANP 8th Edition and migration from *Asia/Pacific Seamless ANS Plan*, regional planning requirements, and to ensure harmonized guidance for development of NANPs.	Follow-up: ☒Required from States
When: 25-Nov-26	Status: Draft to be adopted by PIRG
Who: ☒Sub groups ☒APAC States ☒ICAO APAC RO ☐ICAO HQ ☐Other:	

Draft Conclusion ATM/SG/14-4: Approval of the Asia/Pacific Regional Flight and Flow Information for a Collaborative Environment Release 1 (FF-ICE/R1) Implementation Plan	
What: That, the *Asia/Pacific Regional Flight and Flow Information for a Collaborative Environment Release 1 (FF-ICE/R1) Implementation Plan* provided in **Appendix G** to the Report be approved and be published on the ICAO APAC Office eDocuments webpage.	Expected impact: ☐ Political / Global ☐ Inter-regional ☐ Economic ☐ Environmental ☒ Ops/Technical
Why: To provide regional strategy and guidance for the implementation of the FF-ICE/R1 within the APAC region.	Follow-up: ☒Required from States
When: 25-Nov-26	Status: Draft to be adopted by PIRG
Who: ☒Sub groups ☒APAC States ☒ICAO APAC RO ☐ICAO HQ ☐Other:	

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Draft Conclusion ATM/SG/14-5: Adoption of Asia/Pacific Flight and Flow Information for a Collaborative Environment Release 1 (FF-ICE/R1) Implementation Timeline	
What: That, the following FF-ICE/R1 implementation timeline be adopted for the APAC region: a) 2030: commencement of technical tests and trials involving eAUs and cross-border eASP interactions; b) 2031: begin operational tests to identify and resolve any issues; and c) 2032: full operationalization of three FF-ICE/R1 services (Filing Service, Flight Data Request Service and Notification Service).	Expected impact: ☐ Political / Global ☐ Inter-regional ☐ Economic ☐ Environmental ☒ Ops/Technical
Why: To ensure harmonized implementation of the FF-ICE/R1 within the APAC region.	Follow-up: ☒Required from States
When: 25-Nov-26	Status: Draft to be adopted by PIRG
Who: ☒Sub groups ☒APAC States ☒ICAO APAC RO ☐ICAO HQ ☐Other:	

Draft Conclusion ATM/SG/14-14: Adoption of the Asia/Pacific Region ATM Contingency Framework (RACF)	
What: That, 1. The *Asia/Pacific Region ATM Contingency Framework (RACF)*, as contained in **Appendix L** to the Report be recommended to APANPIRG for adoption as the regional framework for ATM contingency planning and management; and 2. upon adoption by APANPIRG, the *Asia/Pacific Region ATM Contingency Framework (RACF)* replace the *Asia/Pacific Region ATM Contingency Plan Version 3.0* (August 2019).	Expected impact: ☐ Political / Global ☒ Inter-regional ☐ Economic ☐ Environmental ☒ Ops/Technical
Why: Recognizing the need to modernize the existing regional ATM contingency arrangements and to strengthen harmonized contingency planning and coordination within and across ICAO regions.	Follow-up: ☒Required from States
When: 25-Nov-26	Status: Draft to be adopted by PIRG
Who: ☒Sub groups ☒APAC States ☒ICAO APAC RO ☐ICAO HQ ☐Other:	

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7.2 List of Conclusions

Conclusion ATM/SG/14-7: Adoption of APAC Regional Guidance Material for GNSS RFI and Associated Data Link Disruption Coordination and Reporting Procedures	
What: That, in accordance with *Decision ATM/SG/12-8*, the *Asia/Pacific Regional Guidance Material for GNSS Radio Frequency Interference (RFI) and Associated Data Link Disruption Coordination and Reporting Procedures (Version 1.0)* provided in **Appendix H** to the Report be approved, and published on the ICAO APAC Office eDocuments webpage.	Expected impact: ☐ Political / Global ☐ Inter-regional ☐ Economic ☐ Environmental ☒ Ops/Technical
Why: To establish a harmonised regional framework for the detection, reporting, coordination and information sharing of GNSS RFI and associated data link disruption events, thereby enhancing regional situational awareness and operational resilience.	Follow-up: ☒Required from States
When: 7-Aug-26	Status: Adopted by Subgroup
Who: ☒Sub groups ☒APAC States ☒ICAO APAC RO ☐ICAO HQ ☐Other:	

Conclusion ATM/SG/14-9: Regional Data Management Guidance Document	
What: That, the *Regional Data Management Document* at **Appendix I** to the Report be adopted as a guiding reference for data management, sharing, and use of operational and performance data across APAC DAG member States.	Expected impact: ☐ Political / Global ☐ Inter-regional ☐ Economic ☐ Environmental ☒ Ops/Technical
Why: While regional bodies like APEC, OECD, and ASEAN have data sharing guidelines, there is no overarching guidance for the wider APAC region. A survey by the AAC identified three key concerns among ANSPs: (a) absence of clearly defined data governance measures and risk of data misuse; (b) inconsistent data quality standards across states; and (c) differing data formats that require significant effort to standardise. A Regional Data Management Guidance Document is therefore essential to guide APAC DAG member states to adopt good data management practices and unlock the value of historical data for impactful use cases.	Follow-up: ☐Required from States
When: 7-Aug-26	Status: Adopted by Subgroup
Who: ☐Sub groups ☒APAC States ☐ICAO APAC RO ☐ICAO HQ ☒Other: APAC DAG	

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Conclusion ATM/SG/14-10: Revised Asia/Pacific Regional Guidance for Space Object Launch and Re-entry Activities Coordination	
What: That, a) the revised *Asia/Pacific Regional Guidance for Space Object Launch and Re-entry Activities Coordination* at **Appendix J** to the Report be adopted, and uploaded to the ICAO APAC Office eDocuments webpage to replace the existing version; and b) States are urged to update national procedures to align with the revised *Asia/Pacific Regional Guidance for Space Object Launch and Re-entry Activities Coordination*.	Expected impact: ☐ Political / Global ☐ Inter-regional ☐ Economic ☐ Environmental ☒ Ops/Technical
Why: As space object activities increase in frequency and complexity, coordination procedures need refinement to maintain aviation safety.	Follow-up: ☒Required from States
When: 7-Aug-26	Status: Adopted by Subgroup
Who: ☒Sub groups ☒APAC States ☒ICAO APAC RO ☐ICAO HQ ☐Other:	

Conclusion ATM/SG/14-11: Adoption of Asia/Pacific Regional Guidance for Assessment of Airport Capacity and Airspace Capacity	
What: That, the *Asia/Pacific Regional Guidance for Assessment of Airport and Airspace Capacity* at **Appendix K** to the Report be adopted and uploaded to the ICAO APAC Office eDocuments webpage, for guidance and reference, by APAC States/Administrations in conducting airport and airspace capacity assessments in accordance with the provision of the *Regional Framework for Collaborative ATFM*.	Expected impact: ☐ Political / Global ☐ Inter-regional ☐ Economic ☐ Environmental ☒ Ops/Technical
Why: To provide guidance for conducting airport and airspace capacity assessment and to improve understanding of the processes by cataloging the best practices and models as adopted by Asia/Pacific States/Administrations.	Follow-up: ☒Required from States
When: 7-Aug-26	Status: Adopted by Subgroup
Who: ☒Sub groups ☒APAC States ☒ICAO APAC RO ☐ICAO HQ ☐Other:	

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Conclusion ATM/SG/14-12: Uploading the Revised AFTN/AMHS-based Interface Control Document		
What: That, the *AFTN/AMHS-based Interface Control Document for ATFM (ICD)* used by APAC States/Administrations to implement cross-border ATFM communications to be uploaded to the ICAO APAC Office eDocuments webpage, for guidance and reference, by APAC States/Administrations.		Expected impact: ☐ Political / Global ☐ Inter-regional ☐ Economic ☐ Environmental ☒ Ops/Technical
Why: To enhance ATFM post-operations analysis and to improve regional interoperability by broadening the technical applicability of the ICD to conform with system requirements of all APAC States/Administrations.	Follow-up:	☒Required from States
When: 7-Aug-26	Status:	Adopted by Subgroup
Who: ☒Sub groups ☒APAC States ☒ICAO APAC RO ☐ICAO HQ ☐Other:		

Conclusion ATM/SG/14-16: Withdraw Outdated Materials on CMAC/FUA from the ICAO APAC Office eDocuments Webpage		
What: That, the following documents be withdrawn from the ICAO APAC Office eDocuments webpage: a) APAC Flexible Use of Airspace (FUA) Manual Template; and b) Interim Guidance Material on Civil/Military Cooperation in Air Traffic Management.		Expected impact: ☐ Political / Global ☐ Inter-regional ☐ Economic ☐ Environmental ☒ Ops/Technical
Why: ICAO Doc 10088 provides more comprehensive guidance and contains more references to ICAO Annexes, Standards and Recommended Practices and guidance material where applicable.	Follow-up:	☐Required from States
When: 7-Aug-26	Status:	Adopted by Subgroup
Who: ☐Sub groups ☐APAC States ☒ICAO APAC RO ☐ICAO HQ ☐Other:		

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7.3 List of Draft Decisions

<table>
<tr><td colspan="3">Draft Decision ATM/SG/14-1: Establish a Working Group to Review and Update the APAC Air Navigation Plan (ANP) Volume III</td></tr>
<tr><td colspan="2">What: That, in order to support the continued improvement and maintenance of the APAC ANP Volume III, APANPIRG:
1. establish a Working Group, under the coordination of the ICAO APAC Office, to review and enhance the APAC ANP Volume III;
2. invite the interested States/Administrations and International Organizations to participate in the Working Group;
3. task the Working Group to:
a) conduct a comprehensive review of the APAC ANP Volume III considering the Asia/Pacific Seamless ANS Plan;
b) develop recommendations for future amendments to APAC ANP Volume III to ensure that regional priorities, implementation pathways, dependencies and performance expectations remain relevant and coherent; and
c) review the alignment between APAC regional priorities and ICAO global planning initiatives, including Global Air Navigation Plan (GANP), Minimum Implementation Path (MIP), and develop coordinated regional recommendations where appropriate; and
4. submit recommendations to ATM Sub-Group and APANPIRG for consideration.</td><td>Expected impact:
☐ Political / Global
☐ Inter-regional
☐ Economic
☐ Environmental
☒ Ops/Technical</td></tr>
<tr><td>Why: To ensure that the APAC ANP Volume III remains current, coherent, implementation-oriented and responsive to evolving regional and global air navigation planning needs.</td><td colspan="2">Follow-up: ☒Required from States</td></tr>
<tr><td>When: 25-Nov-26</td><td colspan="2">Status: Draft to be adopted by PIRG</td></tr>
<tr><td colspan="3">Who: ☒Sub groups ☒APAC States ☒ICAO APAC RO ☐ICAO HQ ☐Other:</td></tr>
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7.4 List of Decisions

<table>
<tr><td colspan="3">Decision ATM/SG/14-3: APAC Project 30/10 Task Force (AP30-10/TF) Terms of Reference (TOR)</td></tr>
<tr><td colspan="2">What: That, the AP30-10/TF TOR at Appendix F to the Report be adopted.</td><td>Expected impact:
☐ Political / Global
☐ Inter-regional
☐ Economic
☐ Environmental
☒ Ops/Technical</td></tr>
<tr><td>Why: To support the Task Force in meeting its established objectives.</td><td colspan="2">Follow-up: ☐Required from States</td></tr>
<tr><td>When: 7-Aug-26</td><td colspan="2">Status: Adopted by Subgroup</td></tr>
<tr><td colspan="3">Who: ☒Sub groups ☒APAC States ☒ICAO APAC RO ☐ICAO HQ ☐Other:</td></tr>
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<table>
<tr><td colspan="3">Decision ATM/SG/14-6: Establish Asia/Pacific Flight and Flow Information for a Collaborative Environment (FF-ICE) Implementation Task Force</td></tr>
<tr><td colspan="2">What: That, the APAC FF-ICE Ad-hoc Group be dissolved, and the APAC FF-ICE Implementation Task Force be established to support the FF-ICE/R1 deployment in the APAC region. The APAC FF-ICE Implementation Task Force will:
a) monitor and drive FF-ICE/R1 implementation in the APAC region in accordance with the Asia/Pacific Regional Flight and Flow Information for a Collaborative Environment Release 1 (FF-ICE/R1) Implementation Plan and the regional implementation timeline;
b) provide a forum for States to raise and coordinate any operational and technical issues arising from FF-ICE/R1 deployment;
c) be responsible for the update and refinement of the Asia/Pacific Regional Flight and Flow Information for a Collaborative Environment Release 1 (FF-ICE/R1) Implementation Plan;
d) report the implementation progress of FF-ICE/R1 services across APAC States/Administrations; and
e) collaborate with relevant APANPIRG contributory bodies, including the ATFM & A-CDM Steering Group and the SWIM Task Force, as required.</td><td>Expected impact:
☐ Political / Global
☐ Inter-regional
☐ Economic
☐ Environmental
☒ Ops/Technical</td></tr>
<tr><td>Why: To support APAC States/Administrations in the implementation of FF-ICE/R1 services in accordance with the agreed regional implementation timeline and the APAC Regional FF-ICE/R1 Implementation Plan.</td><td colspan="2">Follow-up: ☒Required from States</td></tr>
<tr><td>When: 7-Aug-26</td><td colspan="2">Status: Adopted by Subgroup</td></tr>
<tr><td colspan="3">Who: ☒Sub groups ☒APAC States ☒ICAO APAC RO ☐ICAO HQ ☐Other:</td></tr>
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Decision ATM/SG/14-8: Dissolution of the Procedures for GNSS and Data Link Disruption Ad Hoc Group	
What: That, having completed the work assigned under *Decision ATM/SG/12-8*, including the development of the *Asia/Pacific Regional Guidance for GNSS Radio Frequency Interference (RFI) and Associated Data Link Disruption Coordination and Reporting Procedures (Version 1.0)*, the Procedures for GNSS and Data Link Disruption Ad Hoc Group be dissolved.	Expected impact: ☐ Political / Global ☐ Inter-regional ☐ Economic ☐ Environmental ☒ Ops/Technical
Why: The Ad Hoc Group has fulfilled its Terms of Reference and completed its primary deliverable. Ongoing monitoring, analysis of GNSS RFI events, identification of trends and hotspots, and future maintenance of the guidance material can be undertaken through existing regional mechanisms.	Follow-up: ☐Required from States
When: 7-Aug-26	Status: Adopted by Subgroup
Who: ☒Sub groups ☒APAC States ☒ICAO APAC RO ☐ICAO HQ ☐Other:	

Decision ATM/SG/14-13: Establishment of the Asia/Pacific Region ATM Contingency Framework (RACF) Task Force	
What: That, in order to support the implementation and continuous development of the *Asia/Pacific Region ATM Contingency Framework (RACF)*, the ATM Sub-Group establishes the Asia/Pacific Region ATM Contingency Frameworks (RACF) Task Force with the following initial terms of reference: a) develop standardized regional Contingency Procedures and Arrangements (CPAs); b) develop, maintain and periodically review the Asia/Pacific regional contingency risk register; c) review lessons learned from contingency events and propose amendments to the RACF, as appropriate; d) support harmonization of the RACF with corresponding frameworks developed by other ICAO regions; and e) report progress and recommendations to future meetings of the ATM Sub-Group.	Expected impact: ☐ Political / Global ☐ Inter-regional ☐ Economic ☐ Environmental ☒ Ops/Technical
Why: Recognizing that the implementation and continuous improvement of the APAC RACF will require continued collaboration among States and international organizations to develop standardized CPAs, the regional contingency risk register, and future enhancements to the RACF.	Follow-up: ☒Required from States
When: 7-Aug-26	Status: Adopted by Subgroup
Who: ☒Sub groups ☒APAC States ☒ICAO APAC RO ☐ICAO HQ ☐Other:	

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<table>
<tr><td colspan="3">Decision ATM/SG/14-15: Establish APAC Flexible Use of Airspace Task Force</td></tr>
<tr><td colspan="2">What: That, the APAC Flexible Use of Airspace Task Force be established to develop regional guidance material that include but not limited to, the following tasks:
a) develop a regional template for airspace use plan (AUP) and updated airspace use plan (UUP) for FUA operations;
b) review and update the APAC document on NOTAM Templates for FUA in accordance with the relevant ICAO provisions and the guidance;
c) develop procedures to support efficient and effective promulgation of airspace use information, including machine readable output format; and
d) review and/or develop regional Key Performance Indicators (KPIs) to measure FUA effectiveness.</td><td>Expected impact:
☐ Political / Global
☐ Inter-regional
☐ Economic
☐ Environmental
☒ Ops/Technical</td></tr>
<tr><td colspan="2">Why: To develop regional guidance material, within the ICAO regulatory framework, to harmonize and enhance FUA implementation in APAC region.</td><td>Follow-up: ☒Required from States</td></tr>
<tr><td colspan="2">When: 7-Aug-26</td><td>Status: Adopted by Subgroup</td></tr>
<tr><td colspan="3">Who: ☒Sub groups ☒APAC States ☒ICAO APAC RO ☐ICAO HQ ☐Other:</td></tr>
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REPORT ON AGENDA ITEMS – ATM/SG/14

Agenda Item 1: Adoption of Provisional Agenda

Provisional Agenda (WP/01)

3.0 The provisional agenda was adopted by the Meeting. The Meeting noted IP/01 (List of Working and Information Papers).

Agenda Item 2: Review of Related High Level Meetings

ATM/SG/13, APANPIRG/36 and DGCA/60 Outcomes (WP/02)

2.1 The Meeting noted the information presented by the Secretariat on the outcomes of the Thirteenth Meeting of the Air Traffic Management Sub-Group (ATM/SG/13), the Thirty-Sixth Meeting of the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG/36) and the 60th Conference of Directors General of Civil Aviation, Asia and Pacific Regions (DGCA/60). It recalled the Conclusions and Decisions adopted by ATM/SG/13 and those subsequently endorsed by APANPIRG/36, including the establishment of the APAC Project 30/10 Task Force, updates to the Terms of Reference (TOR) of the ATM Sub-Group and Aeronautical Information Services – Aeronautical Information Management. Implementation Task Force (AAITF), the renaming of the Air Traffic Flow Management Steering Group (ATFM/SG), the adoption of the APAC Flight and Flow Information for a Collaborative Environment (FF-ICE) Ad Hoc Group TOR, and various Conclusions relating to the *Asia/Pacific Seamless ANS Plan*, collaborative Air Traffic Flow Management (ATFM), System-Wide Information Management (SWIM), Trajectory-based Operations (TBO), contingency coordination, Search and Rescue (SAR), Airport Collaborative Decision Making (A-CDM), and annual monitoring and reporting arrangements.

2.2 Regarding the use of Conclusions and Decisions across APANPIRG Sub-Groups, the Secretariat advised that, following concerns raised at ATM/SG/13, it had coordinated with the Secretariats of the other Sub-Groups. It had subsequently been agreed to apply the guidance contained in the APANPIRG Handbook to promote a common understanding and, to the extent practicable, greater consistency in the preparation and use of Draft Conclusions, Draft Decisions, Conclusions and Decisions.

2.3 The Meeting also noted the strategic discussions and Action Items arising from DGCA/60 relating to the implementation of TBO, ATFM, SWIM, data-driven ATM, Global Navigation Satellite System (GNSS) Radio Frequency Interference (RFI), contingency preparedness, meteorological support for ATFM, and future airspace management concepts. The Meeting recognised that these initiatives would support the implementation of the *Asia/Pacific Seamless ANS Plan* and noted that the relevant Action Items had been referred to the appropriate APANPIRG Sub-Groups for follow-up, as appropriate.

Outcomes from FIT-Asia/16 and RASMAG/31 (WP/03)

2.4 The Sixteenth Meeting of the FANS Interoperability Team-Asia (FIT-Asia/16) and the Thirty-First Meeting of the Regional Airspace Safety Monitoring Advisory Group (RASMAG/31) were held in Bangkok, Thailand, from 9 to 11 June 2026 and 29 June to 3 July 2026, respectively.

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FIT-Asia/16 Outcomes

Asia/Pacific Region Combined PBCS Monitoring Report

2.5 Indonesia and Malaysia presented the aggregated data link performance monitoring report for the APAC region. The 95 per cent criterion was met in all Flight Information Regions (FIRs). All FIRs achieved marginal performance (99.0–99.89 per cent) in both halves of 2025, except VABF during the first half of the year. VABF improved in the second half and achieved marginal performance. CPDLC performance across the APAC region remained strong throughout 2025. All reporting FIRs met the 95 per cent Actual Communication Performance (ACP) and Actual Communication Technical Performance (ACTP) criteria, and most achieved the 99.9 per cent criteria, demonstrating stable performance across the region, including in high-volume FIRs.

Regional PBCS Implementation Update

2.6 States and Air Navigation Service Providers (ANSPs) implementing Performance-based Communication and Surveillance (PBCS) were expected to complete annually all survey sections (Groups A–E) of the *Survey of the Status of Current and Planned Implementation of Performance-Based Horizontal Separation Minima*, while States and ANSPs not yet implementing PBCS were encouraged to complete Groups D and E to indicate future plans, readiness, and approvals. It was noted that aircraft and operator approvals by the State of the Operator or State of Registry might still have been required to enable accurate PBCS capability reporting in flight plans where such procedures were applied.

RASMAG/30 Meeting Outcomes

APAC Consolidated Safety Report

2.7 The Monitoring Agency for the Asian Region (MAAR) presented a combined summary of the safety analysis results for the APAC region, on behalf of the APAC Regional Monitoring Agencies (RMAs) and En-route Monitoring Agencies (EMAs). The APAC Consolidated Safety Report could be found in **ATM/SG/14 WP/03 Appendix A**.

2.8 The estimated vertical collision risk for 2025 for the Pacific area did not meet the Target Level of Safety (TLS) **(Table 1).** There was a total of 147 Large Height Deviations (LHDs) in the Pacific area in 2025 (increased from 139 in 2024), with total duration 383.1 minutes and 33 levels crossed.

Table 1. Pacific Area Vertical Collision Risk 2025

Pacific Area **Estimated annual flying hours = 3,840,508 hours** ***(Note: estimated hours based on December 2025 TSD)***		
Source of Risk	**Risk Estimation**	**Comparison with TLS**
Vertical Technical Risk	0.22×10^{-9}	Below technical TLS
Operational Risk	5.45×10^{-9}	-
Total Risk	**5.67×10^{-9}**	**Above TLS**

2.9 The estimated horizontal collision risk for 2025 for the Pacific area met TLS in all lateral and longitudinal risk categories. There was a total of 221 Large Lateral Deviations (LLDs) and Large Longitudinal Errors (LLEs) in the Pacific area in 2025 (increased from 171 in 2024), with a total duration of 602.5 minutes and total horizontal deviation of 1,603 NM.

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2.10 The estimated vertical collision risk for 2025 for the Asia area met TLS (**Table 2**). There was a total of 813 LHDs in the Asia area in 2025 (increased from 763 in 2024), with total duration 384.1 minutes and 252.8 levels crossed.

Table 2. Asia Area Vertical Collision Risk 2025

Asia Area **Estimated annual flying hours = 11,115,453 hours** ***(Note: estimated hours based on December 2025 TSD)***		
Source of Risk	**Risk Estimation**	**Comparison with TLS**
Vertical Technical Risk	0.84×10^{-9}	Below technical TLS
Operational Risk	0.71×10^{-9}	-
Total Risk	**1.55×10^{-9}**	**Below TLS**

2.11 The estimated horizontal collision risk for 2025 for the Asia area met TLS in all lateral and longitudinal risk categories. There was a total of seven LLDs and LLEs in the Asia area in 2025 (increased from three in 2024), with a total duration of zero minutes and total horizontal deviation of 97 NM.

Hot Spots for RASMAG

2.12 RASMAG/31 agreed to the followings:

a) hot spots D1 (Fukuoka/Manila) and J (Jakarta/Kota Kinabalu/Singapore) proposed for removal;

b) hot spot D7 (Kota Kinabalu/Manila) as potential non-hot spot due to the number of reported LHDs and risk level were below hot spot criteria, and mitigation measures implemented; and

c) hot spot P (Jakarta/Ujung Pandang) as new hot spot.

ATM and Airspace Safety Deficiencies List

2.13 The following recommendations to be submitted to APANPIRG/37 based on the outcomes of RASMAG/31, together with additional information provided by States and MAAR, as of 17 July 2026:

a) to be retained in the Deficiencies list:

<u>Safety Reporting Deficiencies</u>

i) **Afghanistan** [Failure to submit Kabul FIR Large Height Deviation (LHD) data and traffic sample data (TSD)].

<u>Long Term Height Monitoring (LTHM) Requirement Deficiencies</u>

i) **Afghanistan** (Remaining monitoring burden of 50%, RASMAG/31).

ii) **India** (Remaining monitoring burden of 48%, RASMAG/31).

b) removal of Deficiency:

<u>LTHM Requirement Deficiencies</u>

i) **Nepal** (Remaining monitoring burden of 11%, RASMAG/31).

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c) add new Deficiency:

LTHM Requirement Deficiencies

i) **Cook Islands** (Remaining monitoring burden of 100%, RASMAG/31);

ii) **Pakistan** (Remaining monitoring burden of 32%, RASMAG/31); and

iii) **Vanuatu** (Remaining monitoring burden of 100%, RASMAG/31).

2.14 The recommendation reflects the status as of 17 July 2026. Should accurate updates be provided to the Secretariat and MAAR, by 19 October 2026, the Secretariat would exclude such items from the recommendations to APANPIRG/37.

Transfer of RVSM Safety Assessment and Monitoring Responsibilities of Hong Kong China and Macao China to China RMA

2.15 RASMAG/31 reviewed and discussed the proposal from China RMA for the transfer of RVSM safety assessment and monitoring responsibilities for Hong Kong China and Macao China from MAAR to China RMA. The Meeting noted that the transfer would consolidate RVSM safety assessment and monitoring services under China RMA, leveraging existing coordination mechanisms and regional cooperation to strengthen safety oversight. A structured transition plan was presented, under which MAAR would retain responsibilities until RASMAG/31, followed by a data handover and transition period from mid-2026 to the end of 2026. China RMA would progressively assume operational duties with MAAR's support, with full implementation scheduled for 1 January 2027. Following discussion, RASMAG/31 agreed to the following Draft Conclusion, for APANPIRG/37 consideration:

Draft Conclusion RASMAG/31-3: Transfer of RVSM Safety Assessment and Monitoring Responsibilities of Hong Kong, China and Macao, China from MAAR to China RMA

Removal of the Asia/Pacific Region En-Route Monitoring Agency (EMA) Handbook from the ICAO APAC Office Website

2.16 RASMAG/31 agreed that, in line with ***Conclusion RASMAG/22-9***, the *Manual on Monitoring the Application of Performance-based Horizontal Separation Minima* (ICAO Doc 10063) was intended to replace the *EMA Handbook* and continued publication of both documents could create unnecessary duplication and confusion. In view of the *EMA Handbook* removal, RASMAG/31 determined that a mechanism was required to record regionally agreed changes to ICAO Doc 10063 pending formal amendment, and consequently agreed to the following Conclusion:

Conclusion RASMAG/31-1: Establishment of RASMAG Conclusions/Decisions Tracking List on Monitoring the Application of Performance-based Horizontal Separation Minima

Revision of the Guidance Material for the Continued Safety Monitoring of the Asia-Pacific RVSM Airspace

2.17 MAAR presented a proposed revision of the *Guidance Material for the Continued Safety Monitoring of the Asia-Pacific RVSM Airspace*, which incorporated recent developments and decisions endorsed by APAC monitoring agencies and relevant RASMAG meetings. Upon review, RASMAG/31 agreed to the following Conclusion:

Conclusion RASMAG/31-2: Guidance Material for the Continued Safety Monitoring of the Asia Pacific RVSM Airspace Version 4.0

RASMAG Terms of Reference (TOR)

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2.18 RASMAG/31 reviewed the RASMAG TOR and agreed that it should be revised to more accurately reflect RASMAG's objectives and responsibilities as an APANPIRG contributory body, particularly with respect to the identification, review and updating of the APANPIRG Air Navigation Deficiencies List. Consequently, RASMAG/31 agreed to the following Draft Decision, for APANPIRG/37 consideration:

Draft Decision RASMAG/31-4: Update Regional Airspace Safety Monitoring Advisory Group (RASMAG) Terms of Reference (TOR)

Agenda Item 3: Performance Frameworks and Metrics

3.0 USOAP

ANS USOAP Update (WP/04)

3.0.1 The Secretariat provided information on the ICAO Universal Safety Oversight Audit Programme (USOAP) Continuous Monitoring Approach (CMA). The paper provided update of the 2024 edition of the USOAP CMA Protocol Questions (PQs), and annual update of the regional USOAP Air Navigation Services (ANS) implementation status.

3.0.2 The Meeting noted the comparison of the PQs in the 2020 and 2024 editions and number of changes for the ANS audit area. To facilitate Member States and international organizations to easily identify the changes introduced in the 2024 edition of the PQs, ICAO had posted the track-changes version of the PQs in pdf format in the "CMA Library" of the USOAP CMA OLF (https://www.icao.int/usoap) under the heading of "USOAP Protocol Questions".

3.0.3 The APAC region Effective Implementation (EI) as of 14 July 2026 was 68.69 per cent, which was slightly above the global average of 65.18 per cent. It was noted that a total of 21 APAC States achieved an ANS EI equal to or above the regional average.

3.0.4 The Meeting was informed that the ICAO Significant Safety Concern (SSC) Validation Committee, in accordance with the mechanism approved by the Council, had determined that Bhutan's corrective actions had effectively resolved the immediate risk associated with the SSC finding. As a result, the SSC had been removed from the ICAO USOAP Continuous Monitoring Approach (CMA) online framework.

3.0.5 The Meeting congratulated Bhutan on its successful efforts to address and resolve the SSC, and commended the commitment and dedication demonstrated by Bhutan in implementing the necessary corrective actions to enhance aviation safety oversight.

Agenda Item 3: Performance Frameworks and Metrics

3.1 APAC ANP Plan and APAC Seamless ANS Plan

Establishment of a Small Working Group to Review and Update the Asia/Pacific Seamless ANS Plan (WP/05)

3.1.1 Singapore presented the proposal to establish a Small Working Group (SWG) to review and update the *Asia/Pacific Seamless ANS Plan* prior to its migration into the *APAC Air Navigation Plan (ANP) Volume III*. It was noted that while selected elements of the *Asia/Pacific Seamless ANS*

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Plan had been incorporated into the draft *APAC ANP Volume III* (**ATM/SG/14 WP/07** referred), key planning constructs, implementation pathways, transition arrangements, and linkages between operational objectives and enabling capabilities had not been fully reflected. The discussion highlighted the risk that *APAC ANP Volume III* could become primarily a monitoring and prioritization tool rather than a comprehensive regional planning framework, potentially resulting in inconsistent interpretation and implementation across States/Administrations.

3.1.2 The need for a coordinated and systematic review to ensure that the future *APAC ANP Volume III* remained coherent, current, and aligned with the latest *Global Air Navigation Plan* (GANP), Aviation System Block Upgrades (ASBUs) framework, regional priorities, and emerging concepts such as SWIM, FF-ICE, and TBO was highlighted. It was proposed that the SWG be established to review traceability between *Asia/Pacific Seamless ANS Plan* elements and *APAC ANP Volume III* objectives, reassess ASBU priorities and timelines, and recommend an appropriate transition approach.

3.1.3 ICAO, while supporting the establishment of a SWG, proposed a shift in its primary objective. Thailand sought clarification on the rationale to progress with the adoption of *APAC ANP Volume III* given the ongoing work by ICAO Headquarters (HQ) on a revised template for *ANP Volume III* and queried whether it would be appropriate to first review and update the *Asia/Pacific Seamless ANS Plan*. The Secretariat reminded the Meeting of the ***APANPIRG Conclusion 36/2***, which approved an action plan for updating *APAC ANP Volume III*. The Secretariat further noted that the revised template was unlikely to be available before 2028 and that the *APAC ANP Volume III* had therefore been updated by translating appropriate content from the *Asia/Pacific Seamless ANS Plan Version 4.0* and remapping the GANP ASBU elements in line with the GANP 8th Edition. The Secretariat clarified that elements of the *Asia/Pacific Seamless ANS Plan* would be reviewed by the proposed SWG and, where appropriate, mapped into *ANP Volume III*.

3.1.4 The Secretariat informed that developing and maintaining a static regional guidance document, such as the *Asia/Pacific Seamless ANS Plan*, was not considered a sustainable use of limited resources. The Secretariat further noted that APAC region remained the only ICAO region without a planning framework in the *ANP Volume III* and recommended that the proposed working group focus on review and updating the *APAC ANP Volume III*. The Secretariat also recommended that the proposed small working group be elevated to a proposed working group and operate as a standing group, with appropriate nominations from States/Administrations and International Organizations, comprising relevant experts in ATM, aerodromes, Communication, Navigation and Surveillance (CNS), and Meteorology (MET).

3.1.5 The Meeting, after discussion, adopted the following Draft Decision:

Draft Decision ATM/SG/14-1: Establish a Working Group to review and update the APAC Air Navigation Plan (ANP) Volume III

That, in order to support the continued improvement and maintenance of the *APAC ANP Volume III*, APANPIRG:

1. establish a Working Group, under the coordination of the ICAO APAC Office, to review and enhance the *APAC ANP Volume III*;
2. invite the interested States/Administrations and International Organizations to participate in the Working Group;
3. task the Working Group to:
    a) conduct a comprehensive review of the *APAC ANP Volume III* considering the *Asia/Pacific Seamless ANS Plan*;
    b) develop recommendations for future amendments to APAC ANP Volume III to ensure that regional priorities, implementation pathways, dependencies and performance expectations remain relevant and coherent; and

c) review the alignment between APAC regional priorities and ICAO global planning initiatives, including Global Air Navigation Plan (GANP), Minimum Implementation Path (MIP), and develop coordinated regional recommendations where appropriate; and

d) submit recommendations to ATM Sub-Group and APANPIRG for consideration.

3.1.6 The draft TOR of the proposed APAC ANP Volume III Review Working Group was provided in **Appendix C** to the Report, and would be further discussed at the Working Group's inaugural meeting.

APAC Regional Priorities and the Relationship with the ICAO MIP (WP/06)

3.1.7 Singapore presented information on the ICAO Minimum Implementation Path (MIP) and its alignment with the APAC regional priorities as reflected in the *Asia/Pacific Seamless ANS Plan*. The Meeting noted that the objective of the MIP was to establish a global baseline of minimum interoperable capabilities and associated implementation timelines supporting the future evolution of the air navigation system, with an initial target of achieving "Evolutionary Step 2" capabilities by 2035.

3.1.8 The Meeting was reminded of the categorization of implementation priorities under the *Asia/Pacific Seamless ANS Plan* and the current status of implementation within the region. It was noted that several critical Priority 1 elements in the *Asia/Pacific Seamless ANS Plan* were not currently included in the proposed MIP. These included key operational capabilities such as Airport Collaborative Decision-Making (A-CDM), Free Route Operations (FRO), PBN procedures, and safety nets, as well as foundational information-sharing and communication capabilities including meteorological products, Air Traffic Services Interfacility Data Communication (AIDC), and VDL Mode 0/A. Conversely, the Meeting noted that a number of capabilities included in the initial MIP proposal, such as FPL2012 filing services and SWIM data consumption and provision, were not identified as Priority 1 elements in the *Asia/Pacific Seamless ANS Plan*.

3.1.9 The Meeting further noted the importance of addressing implementation dependencies within the MIP framework. As an example, AIDC (FICE-B0/1) was identified as a prerequisite capability for the implementation of the candidate MIP element FICE-B3/2, despite not being included in the current MIP proposal. In this regard, the Meeting was invited to consider whether implementation dependencies should be explicitly incorporated into the MIP to provide a clear and comprehensive implementation pathway, or whether the MIP should focus solely on core target capabilities, leaving States to identify and implement any necessary enabling capabilities independently.

3.1.10 The Meeting was invited to review, consider and discuss the following issues:

a) to review the *Asia/Pacific Seamless ANS Plan* priorities to ensure that they continued to reflect current operational requirements and implementation realities;

b) to provide regional input on the capabilities considered essential for global interoperability and inclusion in the MIP;

c) to consider how implementation dependencies should be reflected in the final MIP framework and whether the MIP should serve as a complete implementation pathway or a high-level set of target capabilities; and

d) in view of the planned adoption of the MIP by the ICAO Assembly in 2028, the importance of active APAC participation in shaping the definition of future global minimum capabilities was emphasized.

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3.1.11 The Meeting, after discussion, in lieu of the proposed Draft Conclusion, agreed to include the following tasks as part of the draft TOR for the proposed APAC ANP Volume III Review Working Group:

a) conduct a comprehensive review of the *APAC ANP Volume III* considering the *Asia/Pacific Seamless ANS Plan*;

b) develop recommendations for future amendments to *APAC ANP Volume III* to ensure that regional priorities, implementation pathways, dependencies and performance expectations remain relevant and coherent; and

c) review the alignment between APAC regional priorities and ICAO global planning initiatives, including GANP, MIP, and develop coordinated regional recommendations where appropriate; and

d) submit recommendations to ATM Sub-Group and APANPIRG for consideration.

3.1.12 This approach ensured that the collective effort generated enduring value rather than a document that would have required constant updates.

Update of APAC ANP Volume III (WP/07)

3.1.13 The Secretariat presented the draft *APAC ANP Volume III*, which had incorporated the performance improvement expectations, related ASBU threads, elements, and priorities contained in the *Asia/Pacific Seamless ANS Plan*. The Meeting was provided with an overview of the development of *APAC ANP Volume III* and its relationship with the *Asia/Pacific Seamless ANS Plan*, and noted that maintaining two separate regional planning documents required significant resources. The Meeting further noted ongoing ICAO efforts to develop a globally harmonized template for *ANP Volume III* to support a standardized performance management framework across all ICAO regions and facilitate future approval by the ICAO Council. Pending the implementation of the global template, the ICAO APAC Office had undertaken actions to update *APAC ANP Volume III* to reflect the latest regional priorities and planning requirements.

3.1.14 The Meeting noted ***APANPIRG/36 Conclusion 36/2***, which agreed to the following action plan for updating the *APAC ANP Volume III*.

a) ICAO Secretariat to incorporate editorial amendments to Part 0 and Part I, with an expected completion date in Q1 2026;

b) ICAO Secretariat, in consultation with APANPIRG Subgroups and other contributory bodies, review and agree with the ASBU elements expected priority for implementation within the APAC Region, with an expected completion date in Q2 2026;

c) APANPIRG Subgroups review and endorse the ASBU elements expected priority for implementation within the APAC Region, with an expected completion date in Q3 2026; and

d) adoption of updated draft APAC ANP Volume III by APANPIRG/37, in Q4 2026.

3.1.15 The Meeting was informed that, following extensive internal consultations, the Secretariat had prepared a draft update of the *APAC ANP Volume III* incorporating updated regional priorities aligned with GANP 8th Edition. The draft was circulated to APAC States/Administrations for review, and comments received from Australia, China, Hong Kong China, Japan, Singapore, Sri Lanka, and the United States had been incorporated, as appropriate, into the revised draft presented to the Meeting.

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3.1.16 It was noted that the ASBU threads and elements contained in *Asia/Pacific Seamless ANS Plan Version 4.0* had been reviewed and updated in accordance with the ASBU nomenclature of the GANP 8th Edition. This review included the introduction of additional Block 3 elements, the deferment of certain elements to later blocks, and revisions to the maturity levels of several elements. Consequently, several ASBU elements previously categorized under Block 2 in the *Asia/Pacific Seamless ANS Plan Version 4.0* had been reclassified to Block 3 or Block 4 and were therefore not included in the implementation planning reflected in the updated *APAC ANP Volume III*. The Meeting also noted that the current version of *APAC ANP Volume III* had been expanded beyond its previous scope, which had only incorporated ASBU elements from Blocks 0 to 2.

3.1.17 **Table 3** provided the changes in the ASBU elements compared with the *Asia/Pacific Seamless ANS Plan Version 4.0*, resulting from updates to the GANP 8th Edition.

Table 3. Changes in ASBU Elements in GANP 8th Edition

ASBU Thread	Asia/Pacific Seamless ANS Plan Version 4.0	GANP 8th Edition	Priority in Asia/Pacific Seamless ANS Plan Version 4.0
ACDM	ACDM-B1/1 to B1/2	ACDM-B2/1 to B2/3	2
APTA	APTA-B1/1, B1/2, B1/4, B1/5	APTA-B2/5, B2/6, B2/7, B2/8	3
	APTA-B2/2	Removed	3
	APTA-B2/4	APTA-B3/3	3
CSEP	CSEP-B2/1 to B2/3	CSEP-B3/3, B3/4, B3/5	3
FRTO	FRTO-B1/6	FRTO-B2/5	2
	FRTO-B1/7	**Removed**	2
	FRTO-B2/1, B2/2	FRTO-B3/1, B3/2	3
NOPS	NOPS-B2/1, B2/2	NOPS-B3/4, B3/5	3
	NOPS-B2/4, B2/5	NOPS-B3/6, B3/7	3
	NOPS-B2/7, B2/8	NOPS-B4/1, B4/2	3
SURF	SURF-B1/5	SURF-B4/1	2
TBO	TBO-B0/1, B1/1, B2/2-B2/2	**Removed**	2
DAIM	DAIM-B1/2 to B1/5	DAIM-B2/6- B2/9	1
	DAIM-B1/6	DAIM-B3/1	1
	DAIM-B1/7	DAIM-B2/10	2
	DAIM-B2/2	DAIM-B3/2	3
	DAIM-B2/3	DAIM-B4/1	3
	DAIM-B2/4	DAIM-B3/3	3
	DAIM-B2/5	DAIM-B3/4	3
ASUR	ASUR-B2/2	ASUR-B3/2, ASUR-B3/3	3
COMI	COMI-B1/3	COMI-B3/5	2
	COMI-B2/1	COMI-B4/1	3
	COMI-B2/2	COMI-B3/6	3
COMS	COMS-B1/3	COMS-B3/3	2
NAVS	NAVS-B2/1	NAVS-B4/1	3

3.1.18 **Table 4** presented the ATM-related ASBU elements and their associated priorities. The Meeting emphasized the importance of periodically reviewing the ATM-related ASBU elements and priorities to ensure their continued relevance to regional operational needs and global planning developments. ATM/SG was encouraged to review these elements on a regular basis and, where necessary, process amendments in accordance with the established regional procedures.

Table 4. ATM-related ASBU Elements

Functional Category	ASBU Element in Asia/Pacific Seamless ANS Plan Version 4.0	Description	ASBU Element in GANP 8th Edition	Priority
Information	DAIM	Digital Aeronautical Information	DAIM-B1/1, DAIM-B2/6-B2/9,	1
		NOTAM Improvements	DAIM-B2/10	2
		AIS in SWIM Environment	DAIM-B2/1	3
Operational	ACDM	Airport CDM Information Sharing	ACDM-B0/1	1
		Airport CDM and ATFM integration	ACDM-B0/2	2
		Airport CDM Integration with ATM Network, AOP and APOC	ACDM-B2/1-B2/3	2
	CSEP	basic airborne situational awareness AIRB and VSA, and performance-based horizontal separations	CSEP-B1/1 to B1/4	2
	DATS	Digital Aerodrome Air Traffic Services	DATS-B1/1	3
	FRTO	Direct routing, airspace planning and FUA, flexible routings, and basic conflict detection and conformance monitoring	FRTO-B0/1 to B0/4	1
		Free Route Airspace, RNP routes, Advanced FUA and Airspace Management (ASM), Dynamic Sectorisation, Enhanced Conflict Detection Tools and Conformance Monitoring, and Multi-Sector Planner Function	FRTO-B1/1 to B1/5. FRTO-B2/5	2
		Integrated ATFM and ATC Planning, Dynamic Airspace Configuration, Cross-border FRA, Enhanced Conflict Resolution Tools	FRTO-B2/3-B2/4	3
	NOPS	Initial integration of ASM with ATFM, Collaborative Network Flight Updates, Basic Network Operation Planning and Initial Airport/ATFM slots, A-CDM Network Interface and Dynamic Slot Allocation	NOPS-B0/1 to B0/5	1

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Functional Category	ASBU Element in Asia/Pacific Seamless ANS Plan Version 4.0	Description	ASBU Element in GANP 8th Edition	Priority
		Short Term ATFM measures, Enhanced NOPS Planning, Enhanced integration of airport operations and NOPS planning, Enhanced Traffic Complexity Management, Full integration of ASM with ATFM, Initial Dynamic Airspace configurations, Enhanced ATFM slot swapping, Extended Arrival Management, ATFM Target Times and Collaborative Trajectory Options Programme	NOPS-B1/1 to NOPS-B1/10	2
		Collaborative Network Operation Planning	NOPS-B2/3	3
		ATFM for cross border FRA	NOPS-B2/6	3
	OPFL	ITP	OPFL-B0/1	3
		CDP	OPFL-B1/1	3
		Separation minima using ATS surveillance systems where VHF voice communications are not available	OPFL-B2/1	3
	RSEQ	Arrival and Departure Management	RSEQ-B0/1-B0/2	1
		Point Merge	RSEQ-B0/3	3
		Extended arrival metering	RSEQ-B1/1	2
		Integration of arrival and departure management	RSEQ-B2/1	3

3.1.19 The Meeting was informed about the *Asia/Pacific Trajectory-based Operations (TBO) Rooadmap* and the *Asia/Pacific Regional Flight and Flow Information for a Collaborative Environment Release 1 (FF-ICE/R1) Implementation Plan*. It was informed that these two regional guidance documents supplement the global concepts and focus on regional implementation aspects bridging the gap between ICAO's global guidance and the specific needs of APAC States/Administrations. The *APAC ANP Volume III* referenced these regional guidance documents while defining the regional priorities and associated timelines. The two documents would be made available on the ICAO APAC Office website.

3.1.20 It was informed that the Secretariat had presented the draft *APAC ANP Volume III* to the Thirtieth Meeting of the Communications, Navigation and Surveillance Sub-group (CNS SG/30, Bangkok, Thailand, 6 – 10 July 2026) of APANPIRG and Thirtieth Meeting of the Asia/Pacific Meteorology Sub-Group (MET SG/30, Bangkok, Thailand, 20 – 24 July 2026) of APANPIRG, and their respective feedback. The Meeting was also informed that the draft *APAC ANP Volume III* would be presented to AOP/SG at the Tenth Meeting of the Aerodromes Operations and Planning Sub-Group (AOP/SG/10, Bangkok, Thailand, 10 – 14 August 2026), for review and endorsement.

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3.1.21 The Meeting reviewed and discussed the draft *APAC ANP Volume III*, as provided in **ATM/SG/14 WP/07 Appendix A**, and noted that the document had been updated by translating appropriate content from the *APAC Seamless ANS Plan Version 4.0* and remapping the GANP ASBU elements in line with the GANP 8th Edition. Following the review, the Meeting endorsed the following Draft Conclusion:

Draft Conclusion ATM/SG/14-2: Adoption of Revised APAC Air Navigation Plan Volume III

That, in accordance with *APANPIRG Conclusion 36/2*, the revised *APAC Air Navigation Plan Volume III* provided in **Appendix D** to the Report be adopted, and published on the ICAO APAC Office ANP webpage.

ASEAN ANS Master Plan as a Regional Reference for Seamless ATM (WP/08)

3.1.22 Singapore, on behalf of ASEAN, presented the *ASEAN Air Navigation Services (ANS) Master Plan* as a regional reference framework for achieving seamless ATM across the APAC region.

3.1.23 Information was provided on the *ASEAN ANS Master Plan*, which serves as a roadmap for the harmonized modernization of ANS systems among ASEAN Member States. The *ASEAN ANS Master Plan* encompasses key regional initiatives, including ATFM, Aeronautical Information Management (AIM), Common Aeronautical Virtual Private Network (CRV), SWIM and FF-ICE. These initiatives support cross-border information exchange, common situational awareness, collaborative decision-making, and regional network operations. It was further noted that the fourth edition of the *ASEAN ANS Master Plan*, targeted for adoption by the end of 2026, would incorporate additional information-centric capabilities, including FF-ICE notification services and meteorological information exchange in a SWIM environment.

3.1.24 The relevance of the *ASEAN ANS Master Plan* to the ongoing development of the ICAO MIP and the review of the *Asia/Pacific Seamless ANS Plan* was emphasized. ASEAN Member States indicated their readiness to share the fourth edition of the *ASEAN ANS Master Plan*, once finalized, with the ICAO GANP Study Group, ICAO APAC Office, and APANPIRG to support regional and global harmonization efforts.

3.1.25 The Meeting commended the work undertaken by the ASEAN Member States in developing the *ASEAN ANS Master Plan* and welcomed ASEAN's offer to share the finalized Fourth Edition of the *ASEAN ANS Master Plan* for consideration as a reference in the ongoing review of the *APAC ANP Volume III*.

Regional Air Navigation Plan Update (WP/09)

3.1.26 The Secretariat presented an update on the progress of incorporating coordinate data for Flight Information Regions (FIRs) and Search and Rescue Regions (SRRs) in the *APAC ANP Volume I*. States should note that ICAO Doc 9673 did not provide a legal description of the FIRs in the first place, therefore, it was very important for States to understand that this process of checking, alignment and validation was crucial if they would like a formal basis for their FIRs.

3.1.27 The exercise to review the ANP with FIR and SSR coordinates should be based on ICAO historical records and not new proposals for changes. The Proposal for Amendments (PfA) process for FIRs and SRRs was the same process of approval in *ANP Volume I* (approval of the Council). Some States had submitted major amendments to their FIRs during the review process. These would only be considered if it was change that only affected the national airspace and not the neighbouring airspace or if all parties agreed with the change proposal before submission to ICAO.

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3.1.28 The Meeting noted that 30 FIRs and 15 SRRs PfAs were approved by the President of the Council and incorporated in the ATM Table I-1 of the *APAC ANP Volume I*, and that there were issues in some areas affecting the resolution of FIRs/SRRs affecting progress and urged States/Administrations to provide updates of any bilateral/trilateral discussion of unresolved FIR boundaries.

3.1.29 The Chairperson encouraged the concerned States to provide updates on any bilateral or multilateral discussions regarding unresolved FIR/SRR boundaries.

3.1.30 Pakistan informed the Meeting that it would continue coordinating with India to resolve the outstanding FIR boundary matters between the Lahore/Karachi FIRs and the Delhi FIR.

Agenda Item 4: Air Navigation Service Deficiencies

Update on the Airspace Classification of Macao, China (WP/10)

4.1 The Meeting noted that Macao China had made significant progress in addressing the ICAO Annex 11 airspace classification deficiency previously identified under APANPIRG. It was reported that the airspace supporting operations at Macau International Airport had been designated as an Aerodrome Traffic Zone (ATZ) and classified as Class C airspace, with the applicable standards and requirements established under Aeronautical Circular AC/ATS/003R05, as amended in May 2026. Macao, China further advised that the characteristics of the ATZ were being updated to ensure full compliance with the specifications of ICAO Annex 11, and that the corresponding Aeronautical Information Publication (AIP) amendment had been scheduled for publication on 20 August 2026. In view of the corrective actions undertaken to address the identified deficiency, Macao China proposed the removal of the associated deficiency from the APANPIRG Air Navigation Deficiencies List.

Corrective Actions Taken by Solomon Islands to Address Air Navigation Service Deficiency (WP/11)

4.2 The Meeting was informed that Solomon Islands had undertaken corrective actions to address the long-standing APANPIRG Air Navigation Deficiency related to airspace classification, which had remained unresolved since 7 July 1999. It was reported that, following the establishment of the Civil Aviation Authority of Solomon Islands (CAASI), the Government had worked with Airservices Australia to develop and implement Class A and Class G airspace classifications, supported by operational Letters of Agreement (LOA) governing airspace procedures.

4.3 Solomon Islands advised that sufficient evidence had been gathered through consultations with the ATS provider, Solomon Islands Airports Corporation Limited (SIACL), confirming that the airspace had been appropriately classified and published in the Solomon Islands AIP. Corrective actions included reviewing the identified deficiency, obtaining supporting documentation, requesting updates to AIP ENR 1.4, and submitting the evidence to ICAO APAC Office, for consideration. In view of the actions taken and the supporting evidence provided, Solomon Islands requested the removal of the associated ATM and Airspace Safety deficiency from the APANPIRG Air Navigation Deficiencies List.

Corrective Action Taken by India for Addressing ANS Deficiency Regarding "Designation of Restricted Areas Above the Land Areas or Territorial Waters of a State –

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Not Implemented" (WP/12)

4.4 The Meeting noted that India had completed all corrective actions to address the APANPIRG Air Navigation Deficiency raised in 2019, concerning the designation of Restricted Area VAR 44-A extending over the high seas. India reported that, through the application of the Flexible Use of Airspace (FUA) concept, VAR 44-A had been replaced with Temporary Reserved Areas (TRAs), i.e. TRA509A, TRA509B, and TRA509C, ensuring compliance with ICAO provisions while maintaining military operational requirements and preserving uninterrupted civil air traffic operations on ATS route N563, above FL270.

4.5 The revised airspace structure was developed through consultations with the Indian Navy and relevant aviation stakeholders, supported by a formal safety assessment, and subsequently approved by the Ministry of Civil Aviation of India and the regulator, the Director General of Civil Aviation (DGCA) India. The changes were promulgated through AIP Supplement No. 84/2026 and the original restricted area was permanently withdrawn effective 11 June 2026. As the non-compliant airspace configuration no longer existed, the Meeting was invited to consider recommending the removal of the related deficiency from the APANPIRG Air Navigation Deficiencies List.

ATM and Airspace Safety Deficiencies List (WP/13)

4.6 The Secretariat presented the list of APANPIRG Air Navigation Deficiencies in the ATM and Airspace Safety fields. The Meeting agreed to the following change proposals, which also included RASMAG/31 recommendations, as recorded in **Appendix E** to the Report, for consideration by APANPIRG/37:

a) removal of Deficiency on Aeronautical Information Services (AIS) Quality Management System (requirements of paragraph 3.6.1 of Annex 15 Quality Management System – not implemented): **Maldives**;

b) removal of Deficiency on Designation of Restricted Areas [requirements of Annex 2 (Definitions) to ensure that restricted areas are designated above the land areas or territorial waters of a State]: **India**;

c) removal of Deficiency on Airspace Classification (requirements of paragraph 2.6 of Annex 11): **Solomon Islands**, and **Macao China**, subject to the publication of the relevant AIP Amendment implementing the corrective action;

d) removal of Deficiency on Non-compliance with LTHM Requirement (remaining monitoring burden more than 30%): **Nepal**; and

d) add new Deficiency on Non-compliance with LTHM Requirement (remaining monitoring burden more than 30%): **Cook Islands**, **Pakistan** and **Vanuatu**.

4.7 The Chairperson congratulated the States/Administration that had successfully completed their corrective action plans (CAPs), thus qualifying for removal from the APANPIRG Air Navigation Deficiencies List.

4.8 With regard to the proposed addition of Pakistan in the APANPIRG Air Navigation Deficiencies in the ATM and Airspace Safety fields arising from LTHM Deficiencies (remaining monitoring burden of 32%, RASMAG/31), the Meeting noted the ongoing efforts undertaken by Pakistan to address the issue, with completion expected by September 2026. The Meeting appreciated the progress made and the update provided by Pakistan, and the Secretariat would coordinate with MAAR upon receipt of the supporting evidence from Pakistan.

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Agenda Item 5: ATM and CNS Systems Modernization

Outcomes from CNS SG/30 (WP/14)

5.1 The Meeting noted the information presented by the Secretariat on the outcomes of the Thirtieth Meeting of the Communications, Navigation and Surveillance Sub-group (CNS SG/30), with particular attention to matters requiring follow-up by the ATM/SG. The Meeting noted the progress made in regional initiatives supporting collaborative ATFM, SWIM, FF-ICE, TBO and ATM automation.

5.2 Regarding the *AFTN/AMHS-based Interface Control Document (ICD) for ATFM*, CNS SG/30 agreed that ownership should be shared between ATM/SG and CNS SG, recognising that the document contains both operational and technical content. It was further agreed that ATM/SG, with support from the ATFM & A–CDM/SG, should be responsible for the operational aspects of the ICD, while CNS SG, with support from the Aeronautical Communication Services Implementation Coordination Group (ACSICG), should be responsible for its technical and communications-related components. The proposed joint ownership arrangement and the latest amendments to the ICD were referred to ATM/SG/14 for consideration and endorsement.

5.3 The Meeting recognized the importance of maintaining a common ICD to support harmonized ATFM information exchange across the APAC region. The Meeting supported the joint ownership of the AFTN/AMHS-based ICD by ATM/SG and CNS SG to ensure its continued maintenance and coordinated development.

5.4 CNS SG/30 reviewed the draft *Asia/Pacific Regional Guidance Material for GNSS RFI and Associated Data Link Disruption Coordination and Reporting Procedures (Version 1.0)*. The draft was updated to incorporate comments and feedback received during CNS SG/30. Following its review, the CNS SG endorsed the revised *Asia/Pacific Regional Guidance Material for GNSS RFI and Associated Data Link Disruption Coordination and Reporting Procedures (Version 1.0)* and agreed that it should be submitted to ATM/SG/14 for further consideration and adoption.

5.5 With regard to SWIM implementation, the Meeting noted the progress made in developing regional implementation material to support cross-border ATM operations. This included the proposed adoption of *ATFM Flight Information Exchange Model (FIXM) Version 4.3* message templates as the regional standard for SWIM-enabled ATFM information exchange and the continued development of Version 2.0 of the *APAC Common SWIM Information Services*.

5.6 The Meeting recognized the importance of adopting standardized FIXM-based message data attributes and templates to support interoperable SWIM implementation in the APAC region. The Meeting noted that the adoption of a common regional standard would facilitate harmonized information exchange among States/Administrations and stakeholders.

5.7 CNS SG/30 also reviewed the future role of the APAC ATM Automation System Task Force and agreed that it should transition to the ATM Automation System Coordination Group. The proposed Coordination Group would provide a sustained regional mechanism to support harmonised implementation of ATM automation systems and associated initiatives, including AIDC, FF-ICE, SWIM, TBO and ATFM.

5.8 The Meeting noted the progress made in integrating the *Asia/Pacific Seamless ANS Plan* into the *APAC ANP Volume III* and the endorsement of the draft document by CNS SG/30 for further consideration by ATM/SG/14. The Meeting recognized that ATM/SG would continue to play an important role in reviewing ATM-related ASBU elements and maintaining *APAC ANP Volume III* in accordance with the established regional process.

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5.9 CNS SG/30 endorsed the draft *APAC ANP Volume III* for further consideration by ATM/SG/14 and requested that any subsequent amendments be clearly identified using track changes to facilitate future review.

5.10 The Secretariat further noted that, as the MIP remained under development, consideration of MIP-related ASBUs by CNS SG would commence only after the MIP had been finalized.

5.11 The Meeting welcomed the outcomes of CNS SG/30 and recognized the close coordination between ATM/SG and CNS SG in advancing regional ATM, CNS and SWIM initiatives. The Meeting noted that continued collaboration between the two Sub-Groups would be essential to support the harmonized implementation of regional air navigation initiatives.

Implementation of Established on RNP AR (EoR) Operations at Shenzhen Bao'an International Airport (WP/15)

5.12 China presented information on the implementation of EoR operations at Shenzhen Bao'an International Airport as a solution to airspace constraints affecting northbound operations. The Meeting noted that Shenzhen Airport, which operated three parallel runways, had been unable to conduct independent parallel approaches using conventional Instrument Landing System (ILS) procedures due to complex airspace limitations. China reported on the development of EoR operations, which combined RNP AR and ILS approaches to facilitate independent parallel arrivals, enhance runway utilization, and improve operational efficiency. It was further noted that the project had been supported by the regulatory framework established by the Civil Aviation Administration of China (CAAC) and had involved close collaboration among ANSPs, airport operator, airlines, and aircraft manufacturer.

5.13 The Meeting noted that extensive preparatory work, including procedure design, validation, approval, and operational planning, had been completed. China reported that, first dual-aircraft simultaneous EoR validation flight had been successfully conducted in April 2026, demonstrating the safety and operational feasibility of independent parallel approaches using RNP AR procedures. The anticipated benefits included increased arrival capacity, reduced flight times, lower fuel consumption and carbon emissions, decreased controller and pilot workload, and enhanced operational efficiency. The Meeting further noted that future activities would include trial operations, continued airline equipage and certification for RNP AR capability, ongoing training for controllers and pilots, and the potential expansion of EoR operations.

5.14 IFALPA noted that, while simultaneous RNP AR approaches had the potential to significantly enhance airport capacity, they also introduced additional operational risks compared to conventional simultaneous ILS approaches. Particular attention was drawn to risks related to path deviations, RF leg tracking accuracy, missed approach conflicts, and GNSS interference, as these factors could reduce separation margins and adversely affect operational safety. IFALPA further emphasized the need for appropriate safety assessments, robust contingency procedures, and comprehensive pilot training prior to implementation.

Progress of TBO Pathfinder Development in the Asia/Pacific Region (WP/16, SP/01)

5.15 The Meeting was informed on the progress of the APAC TBO Pathfinder Project, an initiative established under the APAC ANSP Committee (AAC) to support the implementation of TBO concept in the region. The update highlighted achievements completed during 2025, including the development of TBO communication materials, stakeholder engagement activities, the successful completion of an FF-ICE/R1 laboratory demonstration, and the development of the *APAC TBO Roadmap*, which had subsequently been endorsed for incorporation into the next revision of the *Asia/Pacific Seamless ANS Plan*. It was noted that the Pathfinder initiative continued to promote awareness and understanding of TBO, SWIM, and FF-ICE among ANSPs and other aviation stakeholders, while providing a framework for regional collaboration and capability development.

5.16 Progress achieved during 2026 was also noted, with particular focus on advancing FF-ICE/R2 and enhancing stakeholder participation, especially from airspace users. Activities included stakeholder engagement sessions, regional awareness webinars conducted by IATA, technical interchange meetings, and table-top exercises to refine operational concepts, technical architecture, and implementation processes.

5.17 Preparations were underway for an FF-ICE/R2 laboratory demonstration scheduled for March 2027, which would showcase strategic trajectory negotiation and collaborative decision-making capabilities within a mixed operational environment. Increased participation by airlines and other airspace users was recognized as critical to ensuring realistic scenario development and achieving meaningful outcomes. Ongoing work to develop methodologies for assessing TBO benefits was also highlighted, supporting future implementation planning and helping States and stakeholders progress toward the regional deployment targets for SWIM by 2030 and FF-ICE/R1 services by 2032.

5.18 The Meeting commended the support and active participation of Pathfinder Project members and highlighted that it was encouraging to observe the increasing involvement of airspace users. The Chairperson emphasized that such participation was critical to advancing the operational deployment of TBO and ensuring close alignment between Pathfinder activities and the regional implementation timelines for SWIM and FF-ICE. The Chairperson further encouraged continued stakeholder engagement and stressed the importance of maintaining regional readiness to support the successful implementation of TBO in the future.

Challenges and Opportunities in Managing Airspace Efficiency and Resilience in APAC Region (WP/17)

5.19 IATA presented the challenges and opportunities associated with airspace efficiency and resilience in the APAC region, highlighting the operational impacts of airspace disruptions, geopolitical conflicts, GNSS interference and increasing airspace complexity. The Meeting noted the importance of strengthened contingency planning, cross-border and cross-regional coordination, ATFM, FUA and civil-military cooperation to enhance airspace management. The Meeting also noted the need to address the growing integration of Unmanned Aircraft Systems (UAS) while ensuring the safety and efficiency of existing aviation operations.

5.20 To address these challenges, IATA presented the outcomes of a data-driven airspace efficiency study and a proposed framework for airspace efficiency management. The Meeting noted that the framework promote a structured, performance-based approach supported by governance, data analytics and digital technologies. The paper also highlighted the need for harmonized guidance, performance monitoring and digital tools to support airspace optimization, enhance operational resilience and enable safer and more efficient airspace operations across the APAC region..

5.21 IFALPA supported the proposed Airspace Efficiency Management System (AEMS) and emphasized the importance of demonstrating its operational benefits through quantitative evidence. IFALPA also highlighted the need to consider its operational impact on airlines and pilots, and stressed the importance of standardized procedures and enhanced cross-border information sharing to address emerging challenges, including GNSS interference and increasing UAS operations.

5.22 IFATCA commended IATA for presenting the working paper, particularly for highlighting the challenges arising from UAS and Advanced Air Mobility (AAM) operations. IFATCA informed the Meeting that it had conducted various studies and research on UAS and AAM operations and their impact on Air Traffic Control (ATC), and expressed its willingness to share the findings. IFATCA supported the view that stakeholders should work collaboratively to address these challenges and ensure the safety of all airspace users in the future.

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5.23 The Chairperson requested further clarification from IATA on how the proposed framework could be aligned and integrated with existing regional plans and performance management frameworks. In this regard, the Chairperson invited IATA to provide additional details, preferably at the next meeting or through an appropriate mechanism beforehand, to assist States/Administrations and international organizations in assessing the framework and facilitating further progress in its development and implementation.

Landing Information Delivery (LID) Service in China and Its Implications for FF-ICE/R2 Operational Scenario Research in APAC (WP/18)

5.24 The Meeting noted the information provided by China on the implementation of the LID service, which has been operational since 2024. The Meeting noted that the service uses existing ACARS data link capability to provide arrival information to flight crews prior to descent, with the objective of improving operational efficiency, reducing controller-pilot voice communications and enhancing situational awareness.

5.25 In the context of regional FF-ICE implementation, China presented LID as a practical application aligned with FF-ICE/R2 concepts, demonstrating information synchronization during the flight execution phase. The Meeting noted that the operational experience gained from LID could provide useful input to the ongoing development of FF-ICE/R2 operational scenarios and future TBO implementation in the APAC region.

5.26 The Meeting was apprised that matters relating to the relationship between the LID and the updating of trajectory information had been discussed by the ICAO Air Traffic Management Requirements and Performance Panel (ATMRPP). The Meeting noted that the transmission and exchange of LID information were not part of FF-ICE/R2, as FF-ICE/R2 primarily focused on trajectory negotiation while the aircraft was airborne, rather than solely on the sharing of information between ground-based and airborne systems.

Practices and Exploration of Runway Incursion Prevention by China ATMB (WP/19)

5.27 The Meeting noted the information presented by China on its systematic approach to runway incursion prevention, including measures relating to safety management, ATC procedures, infrastructure enhancement and technology application. These measures have been implemented to address the challenges associated with high-density operations and complex airport configurations.

5.28 Drawing on operational experience in East China, China highlighted the safety benefits achieved through a combination of procedural improvements, infrastructure enhancements and decision-support technologies, resulting in a reduction in runway incursion risk. These practices provide useful experience for States seeking to strengthen runway safety in accordance with regional safety objectives.

5.29 The Meeting recognized the value of sharing operational experience and best practices across the APAC region. It further noted that runway incursion prevention was primarily a flight safety matter, while elements relating to AeroMACS and other CNS technologies, as well as aerodrome infrastructure and equipment, fall within the respective responsibilities of AOP/SG and CNS SG. Accordingly, the Meeting recommended that China share the relevant aspects of its experience with the appropriate APANPIRG Sub-Groups for further consideration.

Raising Airlines' Awareness of SWIM, FF-ICE and TBO (IP/02)

5.30 The Meeting noted the information presented by IATA on activities to raise airline awareness of SWIM, FF-ICE and TBO. These activities included regional webinars, educational materials and stakeholder engagement to improve understanding of the concepts and support airline

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preparedness for future implementation. The Meeting recognized the importance of active participation by airspace users in regional SWIM, FF-ICE and TBO initiatives. It encouraged continued collaboration among airlines, ANSPs and other stakeholders to support harmonised implementation across the APAC region.

Preparing for Trajectory-Based Operations through CARATS, Data Analytics and Regional Cooperation (IP/03)

5.31 Japan provided information on the reorganization of Fukuoka FIR and described the experience in analyzing issues and improving operations using data. It provided an overview of the current initiatives, including the launch of SWIM operations, toward the future implementation of TBO. Guiding principles adopted for promotion of TBO implementation across APAC region was also presented.

Transition to a Single Flight Information Region (IP/04)

5.32 The Meeting was informed of Australia's plan to transition to a Single Flight Data Region Group (SFDRG) as part of the Civil Military Air Traffic Management System (CMATS) programme, which aimed to consolidate the management of Australian-administered airspace and pave the way for the future establishment of a single FIR, to be designated as Australia FIR (YAAA).

5.33 Australia presented a ten-stage airspace transition programme under which airspace would progressively migrate from the existing Brisbane (YBBB) and Melbourne (YMMM) flight data regions to the new YAAA flight data region, while the current FIRs structure would remain in place throughout the transition period. The Meeting noted that the transition was planned to commence in November 2027 and conclude in October 2028, with coordination arrangements to be established with neighbouring ANSPs before each implementation stage. The Meeting further noted that ATS provided by Australia within portions of the Nauru and Honiara FIRs would transition into CMATS without changes to their existing flight data region arrangements, and that the eventual creation of a single Australia FIR would occur following completion of the airspace transition programme, without altering current FIR boundaries with adjacent FIRs.

Visual Surveillance System for Maneuvering Area (IP/05)

5.34 Australia presented information on the implementation of the Visual Surveillance System for Maneuvering Area (VSS-M) project at Brisbane Airport as a long-term solution to line of sight obstructions caused by airport expansion and infrastructure development. The system was developed to provide high-resolution visual coverage of obscured manoeuvring areas, enhancing controller situational awareness through day/night, infrared, and pan-tilt-zoom capabilities. Comprehensive testing, validation, and human factors assessments demonstrated that the VSS-M met or exceeded the effectiveness of the conventional out-the-window view under various weather and lighting conditions, while supporting operational efficiency and reducing controller workload. The successful implementation of the system enabled Brisbane Tower to address line of sight limitations and maintain safe aerodrome control operations in accordance with the provisions described in *Procedures for Air Navigation – Air Traffic Management* (PANS-ATM, ICAO Doc 4444).

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Modernization of Indonesia's Air Traffic Management Automation System (IP/06)

5.35 Indonesia presented the ongoing modernization of its Air Traffic Management Automation System (ATMAS) and supporting air navigation systems to enhance operational efficiency, safety, interoperability and cross-border coordination within the Jakarta and Ujung Pandang FIRs. The Meeting noted the successful implementation of the new ATMAS at the Jakarta Air Traffic Service Center (JATSC), which entered operational service in June 2026 and included capabilities such as CPDLC, ADS-C, AIDC, and integrated arrival and departure management. The Meeting also noted progress in the implementation of a nationwide ATFM system, enhancement of the Aeronautical Message Handling System (AMHS), and the transition from AIS to AIM to support improved information exchange and future SWIM-enabled operations. Indonesia further informed the Meeting that AIDC implementation with adjacent FIRs was planned from 2027 to support seamless ATM across the APAC region.

Progress on the Enhancement of Air Traffic Services from Procedural to Surveillance-Based Service at Balikpapan APP and Medan APP (IP/07)

5.36 The Meeting was informed of Indonesia's ongoing ATM modernization programme to transition ATS from procedural to surveillance-based operations at Balikpapan APP and Medan APP. The programme includes the consolidation of ATS under the two APPs, supported by ATM automation, surveillance and communication infrastructure. Supporting operational preparations, including safety assessments, operational procedures and AIP amendments, were reported to be progressing as planned, with implementation targeted for January 2027.

Agenda Item 6: ATM Coordination and Implementation

6.0 Reports on Relevant ATM Coordination and Ad Hoc Group Meetings

Outcomes from SAIOSEACG/5 (WP/20)

6.0.1 The Secretariat presented the key outcomes of the Fifth Meeting of the South Asia and Indian Ocean and Southeast Asia ATM Coordination Group (SAIOSEACG/5, Bangkok, Thailand, 13 – 16 January 2026). Discussions covered regional ATM coordination, CNS/ATM implementation, ATS route development, safety monitoring, and APANPIRG Air Navigation Deficiencies. Progress was reported in reducing longitudinal separation minima across major ATS routes, including the successful application of 20 NM and 30 NM longitudinal separation on selected routes in the South China Sea and Bay of Bengal areas. Advancements in surveillance capabilities, particularly through wider Automatic Dependent Surveillance – Broadcast (ADS–B) implementation, and enhanced cross-border coordination were also highlighted. The outcomes reflected continued regional efforts to improve airspace capacity, operational efficiency, and safety, while supporting the objectives of the Project 30/10 initiative and the modernization of ATM operations across the region.

6.0.2 Significant attention was given to ongoing ATS route enhancement initiatives, including the implementation of reduced longitudinal separation on routes L642, M771, N571, N892, and L625, the development of parallel routes along ATS route A1. Positive results from these initiatives demonstrated improvements in capacity, flight flexibility, fuel efficiency, and regional coordination, while also identifying areas requiring further harmonization and technical coordination. Updates were also provided on ATM contingency planning, civil-military cooperation, Flexible Use of Airspace (FUA), and regional safety monitoring activities. Continued collaboration among States, ANSPs, airlines, and international organizations was encouraged to advance priority route enhancements, contingency preparedness, and future implementation of Free Route Airspace (FRA) and other performance-based airspace management concepts throughout the region.

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6.0.3 The Meeting was informed that the ICAO-IATA Free Route Airspace (FRA) Implementation Workshop was planned to be held in Beijing, China, from 17 to 18 November 2026, to promote the knowledge, technical capabilities, and operational readiness necessary to accelerate FRA implementation across the APAC region. Further information on the Workshop could be found on the ICAO APAC Office website: http://www.icao.int/APAC/meetings.

6.0.4 To assist States/Administrations in facilitating the allocation of resources for participation in future meetings, the Secretariat informed the Meeting that, the BOBTFRG/8 and the SCSTFRG/14 were scheduled to be held in January 2027, while the SAIOSEACG/6 was planned for March 2027. It was noted that these meetings would be convened in Bangkok, Thailand.

Progress of the APAC Project 30/10 Task Force (WP/21)

6.0.5 The Secretariat presented the progress of the APAC Project 30/10 Task Force (AP30-10/TF), including the outcomes from the Kick-off Meeting of the APAC Project 30/10 Task Force (Video Teleconference, 21 April 2026) and the First Meeting of the APAC Project 30/10 Task Force (AP30-10/TF/1, Tangerang, Indonesia, 16 – 18 June 2026).

6.0.6 It was noted that the global Project 30/10 initiative endorsed by the Fourteenth Air Navigation Conference (AN-Conf/14, Montreal, Canada, 26 August – 6 September 2024) through ***AN-Conf/14 Recommendation 3.1/1***, which aimed to optimize the implementation of longitudinal separation minima of 30 NM or less in oceanic and remote airspace and 10 NM or less in other airspace. At the AP30-10/TF/1, updates were provided by several States and international organizations on existing separation minima, implementation experiences, operational challenges, and enabling considerations and technologies. IATA presented airlines fleet equipage assessments, which indicated a generally high level of readiness among major air carriers to support reduced separation minima, while IFATCA emphasized the importance of addressing human performance, controller workload, training requirements, and safety considerations as part of implementation planning.

6.0.7 A regional baseline analysis conducted by the ICAO Secretariat reviewed 1,229 Transfer of Control (TOC) points across 34 FIRs within the APAC region. The analysis indicated that 341 TOC points, representing 27.7 per cent of the total, already met the Project 30/10 target, while the remaining continued to apply distance-based or time-based separation standards exceeding the Project 30/10 objectives. APAC States/Administrations were encouraged to target implementation by the end of 2028, subject to operational readiness and the availability of required technical and operational enablers. In this regard, States/Administrations were urged to strengthen staffing, training, cross-border coordination, and CNS/ATM modernization efforts to support harmonized implementation across the region and at inter-regional boundaries.

6.0.8 A breakout session was conducted to review existing ATC longitudinal separation minima at FIR boundaries and identify pathways towards achieving Project 30/10 objectives. Four geographically based working groups were established to focus on contiguous and adjacent airspace with significant traffic flows. The groups examined the separation minima currently applied at FIR boundaries, discussed implementation challenges, and identified opportunities for further harmonization. Outcomes of the discussions were presented by the respective rapporteurs, and agreement was reached to maintain the ATC separation minima data spreadsheets as living documents for continuous updating by States/Administrations. It was also agreed that the rapporteurs would be responsible for maintaining the data sets, while ICAO would explore the development of a regional dashboard to monitor implementation progress and separation minima across the region.

6.0.9 The Meeting further considered the draft TOR for the AP30-10/TF, which was presented to ATM/SG for adoption. ATM/SG/14 reviewed the draft TOR and agreed to the following Decision:

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Decision ATM/SG/14-3: APAC Project 30/10 Task Force (AP30-10/TF) Terms of Reference (TOR)

That, the AP30-10/TF TOR at **Appendix F** to the Report be adopted.

6.0.10 In response to an enquiry, the Secretariat clarified that the AP30-10/TF meetings were to be convened on a quarterly basis, with one in-person meeting planned each year. Regarding the maintenance of the ATC separation minima data spreadsheets by the rapporteurs, it was noted that, until a regional dashboard became available, each rapporteur was expected to provide updates during the quarterly meetings.

Progress Update of the ICAO Asia/Pacific Flight and Flow Information for a Collaborative Environment (FF-ICE) Ad Hoc Group (WP/22)

6.0.11 Singapore and Thailand presented progress by the APAC FF-ICE Ad Hoc Group, noting that, through workshops and meetings, the Group had developed the draft *Asia/Pacific Regional Flight and Flow Information for a Collaborative Environment Release 1 (FF-ICE/R1) Implementation Plan*, which set out operational and technical requirements for regional FF-ICE/R1 implementation and recommended harmonization areas.

6.0.12 The APAC FF-ICE Ad-hoc Group finalized the draft *Asia/Pacific Regional FF-ICE/R1 Implementation Plan* at its fourth meeting. The draft was reviewed by ATFM & A-CDM/SG/16 in April 2026 and SWIM TF/11 in May 2026, endorsed by CNS SG/30 in July 2026, and subsequently presented to ATM/SG/14 for further review. As the *Asia/Pacific Regional FF-ICE/R1 Implementation Plan* complements the *Manual on FF-ICE* (ICAO Doc 9965) *Volume II – Implementation Guidance*, it was proposed that the endorsement of APANPIRG/37 be made conditional upon the availability of ICAO Doc 9965 Volume II, which was expected in Q3 2026.

6.0.13 Following discussion, ATM/SG/14 agreed to the following Draft Conclusion, for APANPIRG/37 consideration:

Draft Conclusion ATM/SG/14-4: Approval of the Asia/Pacific Regional Flight and Flow Information for a Collaborative Environment Release 1 (FF-ICE/R1) Implementation Plan

That, the *Asia/Pacific Regional Flight and Flow Information for a Collaborative Environment Release 1 (FF-ICE/R1) Implementation Plan* provided in **Appendix G** to the Report be approved and be published on the ICAO APAC Office eDocuments webpage.

6.0.14 ATM/SG/14 was informed that, to ensure harmonized FF-ICE/R1 implementation in the APAC region, the APAC FF-ICE Ad-hoc Group had developed and agreed a regional implementation timeline, which had been reviewed by ATFM & A-CDM/SG/16 in April 2026 and SWIM TF/11 in May 2026, and endorsed by CNS SG/30 in July 2026. ATM/SG/14 reviewed the timeline and agreed to the following Draft Conclusion for APANPIRG/37 consideration:

Draft Conclusion ATM/SG/14-5: Adoption of Asia/Pacific Flight and Flow Information for a Collaborative Environment Release 1 (FF-ICE/R1) Implementation Timeline

That, the following FF-ICE/R1 implementation timeline be adopted for the APAC region:

a) 2030: commencement of technical tests and trials involving eAUs and cross-border eASP interactions;

b) 2031: begin operational tests to identify and resolve any issues; and

c) 2032: full operationalization of three FF-ICE/R1 services (Filing Service, Flight Data Request Service and Notification Service).

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6.0.15 As the APAC FF-ICE Ad-hoc Group had achieved its TOR-specified objectives, it proposed that the next phase focus on implementation issues, regional progress monitoring and support for States/Administrations in the transition to FF-ICE/R1. Accordingly, it recommended dissolving the APAC FF-ICE Ad-hoc Group and establishing the APAC FF-ICE Implementation Task Force to support and monitor FF-ICE/R1 implementation per the regional plan and timeline. ATM/SG/14 agreed the following Decision:

Decision ATM/SG/14-6: Establish Asia/Pacific Flight and Flow Information for a Collaborative Environment (FF-ICE) Implementation Task Force

That, the APAC FF-ICE Ad-hoc Group be dissolved, and the APAC FF-ICE Implementation Task Force be established to support the FF-ICE/R1 deployment in the APAC region. The APAC FF-ICE Implementation Task Force will:

a) monitor and drive FF-ICE/R1 implementation in the APAC region in accordance with the *Asia/Pacific Regional Flight and Flow Information for a Collaborative Environment Release 1 (FF-ICE/R1) Implementation Plan* and the regional implementation timeline;

b) provide a forum for States to raise and coordinate any operational and technical issues arising from FF-ICE/R1 deployment;

c) be responsible for the update and refinement of the *Asia/Pacific Regional Flight and Flow Information for a Collaborative Environment Release 1 (FF-ICE/R1) Implementation Plan*;

d) report the implementation progress of FF-ICE/R1 services across APAC States/Administrations; and

e) collaborate with relevant APANPIRG contributory bodies, including the ATFM & A-CDM Steering Group and the SWIM Task Force, as required.

6.0.16 The draft TOR of the APAC FF-ICE Implementation Task Force was provided in **ATM/SG/14 WP/22 Appendix B**, and would be further discussed at the Task Force's inaugural meeting.

6.0.17 In response to an enquiry regarding the establishment of the APAC FF-ICE Implementation Task Force, the Secretariat clarified that, given the planned full operationalization of the three FF-ICE/R1 mandatory services for APAC region (Filing Service, Flight Data Request Service, and Notification Service) by 2032, it was appropriate for the group to be established as a Task Force, as it was expected to complete its mandate within that timeframe. The Secretariat further noted that any requirement for an extension beyond 2032 would be considered and addressed accordingly.

Progress of the Procedures for GNSS and Data Link Disruption Ad Hoc Group and Proposed Adoption of the Regional Guidance Document (WP/23)

6.0.18 Singapore, on behalf of the Procedures for GNSS and Data Link Disruption Ad Hoc Group, provided an update on the Ad Hoc Group’s work. It was recalled that the Ad Hoc Group’s key deliverable was to develop harmonized regional procedures for reporting, coordination and information sharing. It was reported that, based on shared information on current reporting and coordination processes, the Ad Hoc Group had consolidated best practices and lessons learned to develop draft guidance material with structured procedures encompassing detection, validation, reporting, coordination, mitigation, and post-event review.

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6.0.19 The Meeting noted that the draft *Asia/Pacific Regional Guidance Material for GNSS RFI and Associated Data Link Disruption Coordination and Reporting Procedures (Version 1.0)* established harmonized regional procedures for the detection, reporting, investigation and coordinated management of GNSS RFI and associated data link disruptions, and had clearly defined the roles and responsibilities of key stakeholders. By enabling timely information sharing and consistent operational responses across the region, the framework enhanced regional situational awareness, supported mitigation of safety risks, and strengthened overall system resilience.

6.0.20 The Meeting reviewed and updated the draft *Asia/Pacific Regional Guidance Material for GNSS RFI and Associated Data Link Disruption Coordination and Reporting Procedures (Version 1.0)* and subsequently adopted the following Conclusion:

> **Conclusion ATM/SG/14-7: Adoption of APAC Regional Guidance Material for GNSS RFI and Associated Data Link Disruption Coordination and Reporting Procedures**
>
> That, in accordance with Decision ATM/SG/12-8, the *Asia/Pacific Regional Guidance Material for GNSS Radio Frequency Interference (RFI) and Associated Data Link Disruption Coordination and Reporting Procedures (Version 1.0)* provided in **Appendix H** to the Report be approved, and published on the ICAO APAC Office eDocuments webpage.

6.0.21 Following the adoption of the regional guidance material, the Ad Hoc Group had fulfilled its assigned tasks and completed its primary deliverable. Ongoing monitoring, analysis of GNSS RFI events, identification of trends and hotspots, and future maintenance of the guidance material can be undertaken through existing regional mechanisms. The Meeting agreed to the following Decision:

> **Decision ATM/SG/14-8: Dissolution of the Procedures for GNSS and Data Link Disruption Ad Hoc Group**
>
> That, having completed the work assigned under ***Decision ATM/SG/12-8***, including the development of the *Asia/Pacific Regional Guidance for GNSS Radio Frequency Interference (RFI) and Associated Data Link Disruption Coordination and Reporting Procedures (Version 1.0)*, the Procedures for GNSS and Data Link Disruption Ad Hoc Group be dissolved.

6.0.22 The Meeting was further informed that, due to the meeting sequence, the regional guidance material adopted by ATM/SG would be presented to the Tenth Meeting of the Aerodromes Operations and Planning Sub-Group (AOP/SG/10, Bangkok, Thailand, 10 – 14 August 2026) for endorsement. Should AOP/SG propose any substantial amendments, the Secretariat would liaise with the ATM/SG Chairperson.

6.0.23 Upon publication of the regional guidance material on the ICAO APAC Office eDocuments webpage, States/Administrations and stakeholders were encouraged to apply the guidance material, as appropriate, to support harmonized reporting, coordination and information sharing relating to GNSS RFI and associated data link disruption events.

6.0.24 IATA supported the regional guidance document and recognized it as a positive step towards harmonized regional reporting of GNSS RFI occurrences, while emphasizing the importance of minimizing duplicate reporting requirements for flight crews.

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Progress of the APAC Data Analytics Group (WP/24)

6.0.25 Singapore presented the progress made by the APAC Data Analytics Group (DAG). Building on the analysis of performance data for year 2024 conducted in 2025, DAG members have expanded the analysis to include full-year data for 2024 and 2025, enabling a year-on-year comparison of performance. The analysis focused on 11 Key Performance Indicators (KPIs), aligned up to stage two of the APANPIRG-endorsed *APAC Air Traffic Management Performance Measurement Framework (ATM/PMF)*, as listed in **Table 5**. A comprehensive data collection guide detailing definitions and calculation methodologies for each KPI is provided in **ATM/SG/14 WP/24 Appendix B** to ensure consistency and reproducibility across member States.

Table 5. 11 KPIs reported by APAC DAG

KPA	KPI	Variant	GANP KPI Code	ATM/PMF KPIs
Capacity	Airport peak capacity	Departure	KPI09-D	Stage 1
		Arrival	KPI09-A	Stage 1
Capacity	Airport peak throughput	Departure	KPI10-1D	Stage 1
		Arrival	KPI10-1A	Stage 1
Capacity	Airport throughput efficiency	Departure	KPI11-D	Stage 2
		Arrival	KPI11-A	Stage 2
Efficiency	Additional taxi-out time	Advanced	KPI02-2	Stage 1
Efficiency	Additional taxi-in time	Advanced	KPI13-2	Stage 1
Efficiency	Additional time in terminal airspace	Basic, Advanced; 40NM, 100NM	KPI08	Stage 2
Predictability	Departure punctuality	± 15 mins	KPI01-2A	Stage 1
Predictability	Arrival punctuality	± 15 mins	KPI14-2A	Stage 1

6.0.26 The analysis revealed regional patterns and interdependencies across KPIs. Most airports operated below declared capacity but maintained high throughput efficiency, indicating demand-limited operations. Departure punctuality consistently exceeded arrival punctuality, additional taxi-out times were generally longer than taxi-in, and year-on-year results showed improved departure punctuality while arrival punctuality and additional taxi-time trends were mixed, with increased additional time in terminal airspace at most airports warranting further monitoring.

6.0.27 The performance review highlighted the need to interpret KPI outcomes within each airport's operational context (traffic mix, runway/gate configuration, airspace design, etc.). The APAC DAG committed to further study of additional data and measurement challenges to inform future KPIs review, and encouraged States to collect six key timestamps (scheduled departure, off-block, take-off, landing, in-block, scheduled arrival) to enable measurement of the eight Stage 1 KPIs.

6.0.28 ATM/SG/14 was informed that the APAC DAG had developed a *Regional Data Management Guidance Document*, based on an AAC survey of data-sharing use cases and challenges. The draft *Regional Data Management Guidance Document* comprised three key pillars and, while intended primarily for APAC DAG data sharing, other APAC groups were encouraged to adapt it for their own use cases:

a) align with existing policy and legal requirements: data management principles set out within the guidance document builds upon existing policy and legal foundations and function as a complementary extension guide to data management;

b) good data management principles: prescribes data management principles across the data lifecycle and good data practices for different data roles and responsibilities for cross-border data sharing use cases; and

c) recommended interoperability measures: recommended common data standards and formats, along with best practices to ensure data quality.

6.0.29 Noting that the *Regional Data Management Guidance Document* intended primarily for DAG data sharing, ATM/SG/14 agreed to the following Conclusion:

Conclusion ATM/SG/14-9: Regional Data Management Guidance Document

That, the *Regional Data Management Guidance Document* at **Appendix I** to the Report be adopted as a guiding reference for data management, sharing, and use of operational and performance data across APAC DAG member States.

6.0.30 The Chairperson commended the achievements of the APAC DAG and recognized the value of its data-sharing initiatives in supporting future activities. The importance of a trusted and harmonized approach to data management and sharing was emphasized, and the endorsement of the *Regional Data Management Guidance Document* was welcomed.

6.0.31 The Meeting encouraged greater participation by States/Administrations in the APAC DAG, including those not yet ready to share data, noting that engagement in discussions and the sharing of operational challenges would contribute to the further enhancement of the guidance document and the development of consistent reporting metrics.

Proposal for Updating the Asia/Pacific Regional Guidance for Space Object Launch and Re-entry Activities Coordination (WP/25)

6.0.32 The Secretariat presented the outcomes of the Workshop on APAC Region ATM Contingency Framework (RACF), held in Tokyo, Japan, from 13 to 17 July 2026. The Workshop had two primary objectives: to review and finalize the draft APAC RACF, which had been initially developed by AAC Workstream 3 and subsequently refined through a series of regional workshops and reviews; and to advance regional coordination on Space Object Launch and Re-entry Activities in response to discussions and actions arising from ATM/SG/13, particularly ***ATM/SG Task List Action Item 13/8***.

6.0.33 This paper provided the outcomes of the Workshop sessions on Space Object Launch and Re-entry Activities Coordination, which included presentations by Japan, the Republic of Korea, and the United States on recent experiences and developments in coordinating space object launch and re-entry activities. The workshop participants subsequently engaged in breakout group discussions to review the existing *Asia/Pacific Regional Guidance for Space Object Launch and Re-entry Activities Coordination*, identify areas for improvement, and develop recommendations for amendment. Based on the outcomes of these discussions, ICAO prepared draft Version 2.0 of the *Asia/Pacific Regional Guidance for Space Object Launch and Re-entry Activities Coordination*, incorporating enhancements aimed at strengthening regional coordination, improving information-sharing arrangements, clarifying stakeholder responsibilities, and supporting the safe and efficient integration of space object launch and re-entry activities within the airspace system.

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6.0.34 The Meeting further noted that the proposed revisions introduced a new chapter on stakeholders' responsibilities, expanded the responsibilities of Launching States, Launching State ATS Authorities, and Affected ATS Authorities, and enhanced requirements for the maintenance of regional points of contact, incorporation of safety buffer zones, timely dissemination of operational information, post-activity analysis, and feedback mechanisms. The revised guidance also clarified coordination timelines, requiring initial coordination at least 10 days, preferably 14 days, prior to a tentative launch or re-entry activity, tactical updates three days prior to the start of the tentative launch window, and final confirmation not less than 24 hours before the activity.

6.0.35 Recognizing the increasing frequency and complexity of space object activities in the APAC region, the Meeting supported the adoption of the revised guidance material and encouraged States/Administrations to align their national procedures with the updated regional framework to further enhance aviation safety and operational efficiency. ATM/SG/14 agreed to the following Conclusion:

Conclusion ATM/SG/14-10: Revised Asia/Pacific Regional Guidance for Space Object Launch and Re-entry Activities Coordination

That,

1. the revised *Asia/Pacific Regional Guidance for Space Object Launch and Re-entry Activities Coordination* at **Appendix J** to the Report be adopted, and uploaded to the ICAO APAC Office eDocuments webpage to replace the existing version; and
2. States are urged to update national procedures to align with the revised *Asia/Pacific Regional Guidance for Space Object Launch and Re-entry Activities Coordination*.

6.0.36 In response to an enquiry, the Secretariat informed the Meeting that the Space Transport Operations Task Force (STOTF) was developing global guidance material for the safe integration of space transport operations within airspace and that its work was expected to be completed by June 2027. The Meeting was further informed that, upon the availability of the global guidance material, the *Asia/Pacific Regional Guidance for Space Object Launch and Re-entry Activities Coordination* would be reviewed and revised as necessary to ensure alignment with the global guidance, or withdrawn if deemed no longer required.

Progress on Action Item 13/10 of the ATMSG Task List (IP/08)

6.0.37 The Meeting noted the joint information presented by China and the Republic of Korea on the progress of ***ATM/SG Task List Action Item 13/10*** concerning the implementation of Phase 2 of the agreed arrangements for ATS route A593. The Meeting noted that consultations had continued following ATM/SG/13, covering Phase 2 implementation, the establishment of a joint safety oversight mechanism and other safety-related matters concerning the relevant airspace.

6.0.38 The Meeting further noted that, due to scheduling constraints, the two States had been unable to convene a bilateral meeting and finalise a joint working paper before ATM/SG/14. China and the Republic of Korea reaffirmed their commitment to continue constructive discussions and agreed to report further progress at APANPIRG/37 or a subsequent ATM/SG meeting.

6.0.39 The Meeting encouraged both States to continue their bilateral coordination to advance the implementation of Phase II. The Meeting also invited the two States to submit a joint WP to ATM/SG/15 in 2027 on the progress achieved.

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APAC ANSP Committee (AAC): Update on Progress and Next Steps (IP/09)

6.0.40 The Meeting was informed of the achievements of the AAC during the 2023–2026 period and noted its proposed extension for 2027–2028. The AAC reported significant progress across its key workstreams, including the development of regional CNS/ATM architecture and training programmes, the advancement of ATFM and TBO, the development of the initial draft *APAC Region ATM Contingency Framework (RACF)*, and the preparation of guidance material FRO. The Meeting further noted that the proposed extension would focus on supporting the implementation of ICAO MIP, enhancing common situational awareness and Collaborative Decision-Making (CDM), promoting seamless air navigation services, and strengthening regional ATM contingency preparedness to address increasing air traffic demand and improve interoperability across the APAC region.

Agenda Item 6: ATM Coordination and Implementation

6.1 A-CDM and ATFM

Outcomes from ATFM & A-CDM/SG/16 (WP/26)

6.1.1 This paper provided the outcomes of the Sixteenth Meeting of the Air Traffic Flow Management and Airport Collaborative Decision-Making Steering Group (ATFM & ACDM/SG/16, Bangkok, Thailand, 6 – 10 April 2026) and sub-regional cross border ATFM programs. The meeting included a joint plenary session with the Fifteenth Meeting of Meteorological Requirements Working Group (MET/R WG/15).

6.1.2 A brief highlight of the discussions held during the ATFM & ACDM/SG/16 and the joint plenary session with the MET/R WG/15, were as follows:

a) the meeting noted updates on the proposed new ICAO provisions on ATFM, including amendments to ICAO Annex 11, PANS-ATM and updates to the *Manual on Collaborative ATFM* (ICAO Doc 9971);

b) ICAO provided a summary of the ATFM implementation status of APAC Administrations, reported against the performance objectives of the *Regional Framework for Collaborative ATFM*. Annual implementation status reports for 2026 were received from 22 APAC Administrations. The meeting was informed that based on reports received, Australia, China, Hong Kong China, Singapore, Thailand and United States were assessed as having “Robust” implementation;

c) the paper noted the progress updates of sub-regional ATFM implementation such as BOBCAT, NARAHG and AMNAC; and

d) the paper provided highlights of MET/ATM Joint Plenary Session and discussions thereon.

6.1.3 The Meeting was apprised of the draft *Regional Guidance Document for Airport and Airspace Capacity Assessment*, developed by ATFM/SG. The Meeting noted that the guidance document provided a brief description of airport capacity assessment processes along with airspace capacity assessment processes, including practical examples and appendices illustrating models that could support States/Administrations in evaluating capacity and the document aimed to assist ATM planners in developing plans to improve capacity in order to meet current and future system demand across the APAC region. The ATM/SG/14 reviewed the draft guidance document, and adopted the following Conclusion:

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Conclusion ATM/SG/14-11: Adoption of Asia/Pacific Regional Guidance for Assessment of Airport Capacity and Airspace Capacity

That, the *Asia/Pacific Regional Guidance for Assessment of Airport and Airspace Capacity* at **Appendix K** to the Report be adopted and uploaded to the ICAO APAC Office eDocuments webpage, for guidance and reference, by APAC States/Administrations in conducting airport and airspace capacity assessments in accordance with the provision of the *Regional Framework for Collaborative ATFM*.

6.1.4 The Meeting was informed that the update process of *AFTN/AMHS-based Interface Control Document (ICD) for ATFM* had been taken up by ICAO Secretariat with the ICD expected to be presented to ACSICG/13 (April 2026) and proposed to CNS SG/30 (July 2026) for endorsement and noted the proposal for using REGUL and REGCAUSE as part of AMNAC ICD in the interim. The Meeting was informed that after discussions in ACSICG/13 and CNS/SG/30 meetings, the ICD was adopted by CNS SG/30 while proposing joint ownership of the document with ATM/SG. ATM/SG/14 endorsed ***Draft Conclusion CNS SG/30/02 (ACSICG/13/02) – AFTN/AMHS-based Interface Control Document for ATFM (ICD) be jointly owned by ATM SG and CNS SG***.

6.1.5 ATM/SG/14 subsequently adopted the following Conclusion:

Conclusion ATM/SG/14-12: Uploading the Revised AFTN/AMHS-based Interface Control Document

That, the *AFTN/AMHS-based Interface Control Document for ATFM (ICD)* used by APAC States/Administrations to implement cross-border ATFM communications to be uploaded to the ICAO APAC Office eDocuments webpage, for guidance and reference, by APAC States/Administrations.

6.1.6 The Meeting was presented with a summary of *Regional Monitoring and Reporting Scheme for the Asia/Pacific A-CDM Implementation*. The Meeting noted that annual implementation reports for 2026 were received from 21 APAC States/Administrations covering 87 airports in the region. The Meeting was informed that more than 85 per cent (67) of reported high-density international aerodromes indicated A-CDM in Operation and Monitoring Phase and the rest of the reported high-density international aerodromes indicated either A-CDM in Implementation Phase or Initiation Phase to implement A-CDM.

6.1.7 The paper presented information on identification, mapping, and development of ATFM FIXM message data attributes and associated message templates based on FIXM version 4.3, to support cross-border ATFM operations, A-CDM, ATFM/A-CDM integration, and traffic synchronization in a SWIM environment in the Asia/Pacific region. It was informed that ATFM & ACDM/SG agreed to the adoption of the identified ATFM FIXM messages data attributes, mapping, and associated message templates, based on FIXM version 4.3, as regional standard templates effective Q1 2027. The Meeting noted that subsequently, the updates were presented to SWIM TF/11 meeting and CNS SG/30 for consideration and CNS SG/30 had endorsed the Draft Conclusion for adoption by APANPIRG/37.

Enhancing Regional ATFM Coordination through Regional Collaborative Operational

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Mechanism (RECOM) (IP/10)

6.1.8 China presented information on the Regional Collaborative Operational Mechanism (RECOM), a voluntary initiative aimed at enhancing coordination and information exchange among existing sub-regional ATFM collaborative mechanisms in the APAC region. The Meeting noted the operational rationale, structural concept, implementation experience, and coordination arrangements associated with the initiative, as well as its potential contribution to strengthening regional collaboration and supporting the harmonization of cross-border ATFM operations. The Meeting further noted that, in response to the increasing number of ATFM-related coordination meetings across the region, RECOM had been initiated to promote interaction and information sharing through an open, inclusive, and operationally focused coordination framework. Information was also provided on the Asia/Pacific Traffic Flow Coordination Call (APAC TFCC) mechanism for regional coordination.

Agenda Item 6: ATM Coordination and Implementation

6.2 ATC Separation

Operational Implementation and Experience of 20 NM Longitudinal Separation on ATS Routes L642 and M771 (WP/27)

6.2.1 The Meeting noted the successful implementation of a 20 NM longitudinal separation minimum on ATS routes L642 and M771 following a two-year trial jointly conducted by the Ho Chi Minh, Hong Kong, and Sanya Area Control Centres (ACCs). The Meeting further noted that the revised LOA were signed on 20 May 2026, formally establishing the 20 NM longitudinal separation minimum as the default transfer standard for the two ATS routes. As of 30 June 2026, approximately 5,900 flights had benefited from the initiative.

6.2.2 The Meeting further noted that the implementation had improved flight level utilization, traffic management flexibility and cross-FIR operational harmonization, while reducing coordination workload and enhancing the efficiency of cross-border operations. The Meeting also recognized the importance of continued performance monitoring and the sharing of implementation experience to support similar initiatives across the APAC region.

6.2.3 The Meeting noted IATA's comments on the operational and environmental benefits of reducing longitudinal separation minima, including improved access to preferred flight levels, reduced fuel consumption and lower carbon emissions. Viet Nam expressed its support for the implementation and reaffirmed its commitment to continuing coordination with China on the implementation of AIDC to further improve regional air traffic management.

6.2.4 The Chairperson congratulated the participating States/Administrations on the successful transition from trial to routine implementation and encouraged States to continue efforts to reduce longitudinal separation minima, where operationally appropriate, in support of the objectives of Project 30/10.

Separation between Taxiing Aircraft and Vehicle During Low Visibility Operations (WP/28, SP09)

6.2.5 Pakistan presented information on the application of separation between taxiing aircraft and vehicles during Low Visibility Operations (LVO). The Meeting noted that ICAO provisions require States and ATS authorities to prescribe appropriate separation minima based on local operational conditions and available surveillance and control aids, recognizing that fixed numerical minima may

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not be suitable for all aerodromes. The Meeting further noted that the relevant ICAO SARPs and guidance were contained in several ICAO documents.

6.2.6 The Meeting noted that safe operations during LVO were generally achieved through a combination of operational procedures, surveillance systems, movement guidance, vehicle controls and training, rather than prescribed distance-based separation standards. The Meeting also noted Pakistan's proposal for ICAO to review the relevant provisions and develop consolidated guidance to support the harmonized implementation of aircraft-to-vehicle separation requirements during LVO.

6.2.7 The Secretariat thanked Pakistan for the work undertaken in examining the application of ICAO Annex 11, paragraph 3.8.2(b), with the objective of enhancing clarity and consistency in the implementation of the provision. However, it was noted that the paper did not clearly identify the specific aspect of the existing provision that was considered unclear, nor did it provide evidence of inconsistent interpretation or application in practice. Furthermore, the absence of proposed amendment text or alternative wording made it difficult to fully assess the nature of the issue and the actions required to address it.

6.2.8 It was also observed that the paper concluded that numerical or distance-based minima may not be practicable and that safety is assured through procedures tailored to the layout, visual aids and facilities of each aerodrome. This was considered consistent with the current intent of paragraph 3.8.2(b), which allowed the appropriate ATS authority to establish suitable arrangements based on local operational circumstances and the aids available.

6.2.9 Accordingly, it was considered that additional evidence, a more clearly defined problem statement, and greater detail regarding the proposed solution would be beneficial before any amendments to ICAO Annex 11, paragraph 3.8.2(b), or the development of new consolidated guidance material, were considered. In this regard, Pakistan supported the Secretariat's proposal for the matter to be further addressed offline.

Agenda Item 6: ATM Coordination and Implementation

6.3 ATM Contingency Planning

Regional ATM Contingency Planning and Contingency Operations Update (WP/29)

6.3.1 The Meeting noted the update provided by the Secretariat on regional ATM contingency planning, including the reported implementation status of the performance expectations of the *Asia/Pacific Region ATM Contingency Plan* and recent ATM contingency operations in the region. The importance of maintaining national ATM contingency plans and regularly reporting implementation status in accordance with the regional monitoring arrangements was recalled.

6.3.2 **Figure 1** illustrated the reported implementation status of the Asia/Pacific Region ATM Contingency Plan, updated to reflect the implementation status information submitted by Viet Nam in June 2026. While continued progress by a number of States was noted, concern was expressed that several States had not submitted implementation status reports. States were encouraged to submit their annual reports in a timely manner to support regional monitoring and implementation.

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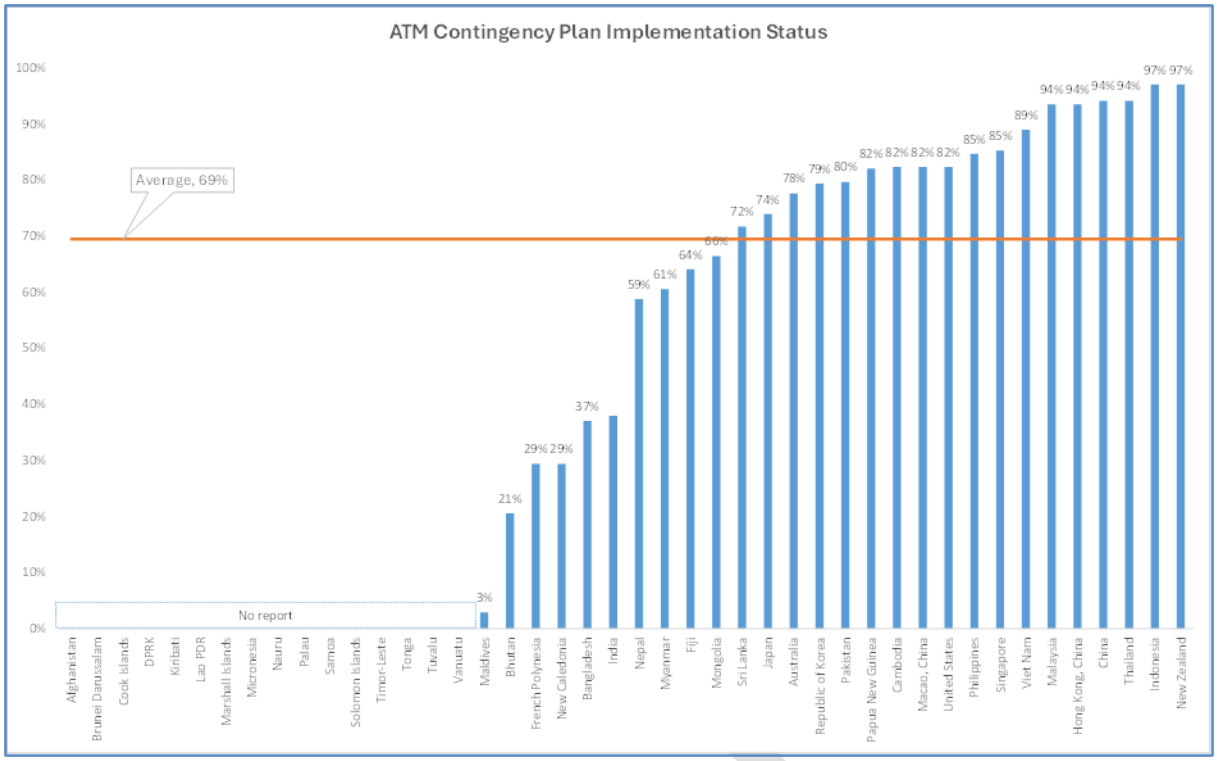

Figure 1. Regional ATM Contingency Plan Overall Implementation Status (31 July 2026)

6.3.3 The Meeting also noted the continuing Kabul FIR contingency operations, including the ongoing application of the Kabul FIR Contingency Arrangements and BOBCAT ATFM procedures in support of the contingency arrangements.

6.3.4 The Meeting recognized the importance of maintaining effective ATM contingency arrangements to ensure the safe and orderly provision of air traffic services during disruptions. Pakistan expressed appreciation for the Secretariat's support and indicated that further discussion on increasing traffic demand in the Afghanistan contingency airspace would be addressed under the relevant agenda item.

6.3.5 The Meeting noted IATA's suggestion to further strengthen cross-border contingency planning and cooperation among States to enhance regional operational resilience during major disruptions. Mongolia informed the Meeting of the update to its national ATM contingency plan and its intention to enhance bilateral contingency arrangements with neighbouring States. China confirmed its willingness to discuss ATM contingency planning with Mongolia through existing bilateral coordination mechanisms.

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BOBCAT ATFM Operational Updates (IP/11)

6.3.6 Thailand presented updates on the operational performance of the Bay of Bengal Cooperative ATFM (BOBCAT) system following its reactivation on 4 September 2025 under the current Kabul FIR ATM Contingency Arrangements. The post-operations analysis covering the period from 4 September 2025 to 30 June 2026 indicated that BOBCAT managed a total of 18,601 flights, averaging 62 flights per night, with traffic demand increasing significantly following regional airspace restrictions associated with developments in the Middle East. The Meeting noted that the average ATFM delay during the period was 4.1 minutes per flight and that the implementation of BOBCAT contributed to an estimated saving of approximately 8,353 tonnes of fuel and a reduction of about 26,394 tonnes of CO_2 emissions. The analysis also demonstrated that approximately 89 per cent of flights achieved their allocated or higher flight levels when entering Kabul FIR, indicating the continued effectiveness of BOBCAT in balancing traffic demand with available airspace capacity.

6.3.7 The Meeting further noted the results of assessments on CTOT compliance, flight level achievement, CTO window compliance, and the impact of increasing traffic demand arising from regional airspace closures. It was observed that rising traffic levels had resulted in increased ATFM delays and a gradual reduction in the percentage of aircraft achieving their preferred flight levels, although overall operational performance remained stable and effective. The Meeting was reminded of the importance of timely transmission of ATS movement messages and adherence to CTOT and CTO requirements to improve operational efficiency and flight level allocation outcomes. The Meeting also noted that BOBCAT continued to provide a valuable mechanism for managing peak nighttime traffic through Kabul FIR under contingency conditions, and that post-operational monitoring and analysis would continue with the support of participating States to further enhance operational performance and regional coordination.

Collaborative ATM Contingency Response to Volcanic Eruption Events: Indonesia's Experience (WP/30)

6.3.8 Indonesia presented its experience in managing the impact of volcanic eruption events on aviation operations through a collaborative ATM contingency framework. Recognizing Indonesia’s exposure to frequent volcanic activity, a comprehensive regulatory framework had been established to support the safe management of volcanic ash hazards, complemented by the Integrated Web-based Aeronautical Information System Handling (I-WISH) platform to facilitate collaborative decision-making and information sharing. The presentation outlined the roles and responsibilities of key stakeholders, the activation mechanisms of the I-WISH platform, and the procedures applied for early detection, impact assessment, operational coordination, and information dissemination during volcanic eruption events. It was further highlighted that the framework integrated information from multiple sources, including Volcano Observatory Notices for Aviation (VONA), SIGMETs, ASHTAMs, NOTAMs, meteorological reports, pilot reports, and volcanic ash forecasts, thereby enabling timely decision-making and coordinated operational responses to safeguard flight operations.

6.3.9 Indonesia further described its operational arrangements for managing volcanic ash disruptions through the Indonesia Network Management Center (INMC), supported by ATFM tools, contingency route planning, teleconferences, and close coordination among aviation authorities, meteorological agencies, airports, airlines, and neighbouring stakeholders. The eruption of Mount Kelud in February 2014 was presented as a case study demonstrating the significant operational impact that volcanic ash events could have on the air transport system. Lessons learned from recent volcanic eruptions highlighted the importance of rapid information exchange, collaborative decision-making, dynamic rerouting, coordinated air traffic flow management measures, and regional cooperation. It was emphasized that continued collaboration among States, ANSPs, volcanic ash advisory centres, meteorological organizations, airports, and airlines remained essential to strengthening operational resilience and mitigating the effects of volcanic ash events across the region.

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6.3.10 The Meeting recognized the importance of timely information sharing on volcanic ash events to support collaborative decision-making among stakeholders. The Meeting also encouraged States/Administrations to share their operational experience and lessons learned to support regional preparedness and enhance the management of volcanic ash events.

Proposal for the Adoption of the Asia/Pacific Regional ATM Contingency Framework (RACF) (WP/31)

6.3.11 The Meeting considered the outcomes of the ICAO APAC Region ATM Contingency Framework (RACF) Workshop held in Tokyo, Japan, from 13 to 17 July 2026. The Meeting recognized the significant contribution of the AAC Workstream 3 in developing the initial RACF, which was subsequently refined through a series of inter-regional workshops and ICAO Secretariat coordination. It was noted that the proposed *Asia/Pacific Region ATM Contingency Framework* (APAC RACF) would replace the current *Asia/Pacific Region ATM Contingency Plan Version 3.0* and strengthen regional contingency planning, preparedness, response, recovery and post-assessment.

6.3.12 The principal features of the proposed APAC RACF were presented, including common contingency planning principles, standardized contingency terminology, contingency procedures and arrangements, defined governance arrangements, a contingency management cycle, and guidance for national contingency planning. The Meeting also noted that the APAC RACF supports harmonized contingency management and inter-regional coordination while maintaining consistency with the provisions of ICAO Annex 11.

6.3.13 Recognizing that further work would be required following adoption of the RACF, particularly on the development of standardized Contingency Procedures and Arrangements (CPAs), the regional contingency risk register and future amendments to the Framework, the Meeting agreed to establish the Asia/Pacific Region ATM Contingency Framework (RACF) Task Force through the following Decision:

Decision ATM/SG/14-13: Establishment of the Asia/Pacific Region ATM Contingency Framework (RACF) Task Force

That, in order to support the implementation and continuous development of the *Asia/Pacific Region ATM Contingency Framework (RACF)*, the ATM Sub-Group establishes the Asia/Pacific Region ATM Contingency Framework (RACF) Task Force with the following initial terms of reference:

a) develop standardized regional Contingency Procedures and Arrangements (CPAs);

b) develop, maintain and periodically review the Asia/Pacific regional contingency risk register;

c) review lessons learned from contingency events and propose amendments to the RACF, as appropriate;

d) support harmonization of the RACF with corresponding frameworks developed by other ICAO regions; and

e) report progress and recommendations to future meetings of the ATM Sub-Group.

6.3.14 In response to an enquiry, the Secretariat clarified that further work was required to develop the *APAC Region ATM Contingency Monitoring Mechanism*, which could be based on the *Regional ATM Contingency Plan Monitoring and Reporting Form*. In this regard, it was proposed that this matter be included within the scope of the Task Force's tasks and responsibilities.

6.3.15 The Meeting further agreed to recommend that APANPIRG adopt the *Asia/Pacific Region ATM Contingency Framework (Version 1.0)*, replacing the current *Asia/Pacific Region ATM Contingency Plan Version 3.0*, and encouraged States/Administrations to review and update their

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national ATM contingency plans accordingly. The Meeting also requested the Secretariat to continue coordinating with ICAO HQ and other ICAO Regional Offices to maintain harmonization of regional ATM contingency frameworks.

Draft Conclusion ATM/SG/14-14: Adoption of the Asia/Pacific Region ATM Contingency Framework (RACF)

That,

1. the *Asia/Pacific Region ATM Contingency Framework (RACF)*, as contained in **Appendix L** to the Report, be recommended to APANPIRG for adoption as the regional framework for ATM contingency planning and management; and
2. upon adoption by APANPIRG, the *Asia/Pacific Region ATM Contingency Framework (RACF)* replace *the Asia/Pacific Region ATM Contingency Plan Version 3.0 (August 2019)*.

1.1.1. The Meeting noted that, following adoption of the *Asia/Pacific Region ATM Contingency Framework (RACF)*, AAC Workstream 3 (WS3) would transition from framework development to implementation support. In coordination with the ICAO APAC Office, AAC WS3 agreed to lead the development and facilitation of regional ATM contingency Table-Top Exercises (TTXs), support validation of contingency arrangements, capture operational lessons learned, and provide implementation feedback to support the continuous improvement of the APAC RACF.

Multi-stakeholder Table-top Exercise on Air Traffic Management Contingency Plans Operations in the Kota Kinabalu Flight Information Region (KK FIR) (IP/18)

6.3.16 The Meeting was informed of Malaysia's experience in conducting a multi-stakeholder TTX to assess the effectiveness of its ATM contingency arrangements for the Kota Kinabalu Flight Information Region (KK FIR). The exercise involved key stakeholders, including the Civil Aviation Authority of Malaysia (CAAM), the Royal Malaysian Air Force (RMAF), Malaysia Meteorological Department, technical service providers, and operational partners, and simulated three contingency scenarios: volcanic ash activity, a TRA for military operations, and ATM facility malfunction with partial loss of building capability.

6.3.17 The exercise successfully validated existing contingency plans, demonstrated the resilience of ATM services, and confirmed the effectiveness of communication, coordination, and decision-making processes during operational disruptions. Key lessons identified included the importance of timely information sharing, strong civil-military coordination, clearly defined communication channels, and regular multi-agency validation exercises. Malaysia also reported the development of an ATM Contingency TTX Handbook to support future preparedness activities and indicated its intention to incorporate lessons learned into future contingency plan enhancements and expand similar exercises to other flight information regions where appropriate.

Agenda Item 6: ATM Coordination and Implementation

6.4 ATS Route Development

Guidance Material for the Implementation of FRTO in the Asia/Pacific Region (WP/32)

6.4.1 IATA presented a summary of the work undertaken by AAC Workstream 4 in developing the *Guidance Material for the Implementation of Free Route Trajectory Operations (FRTO) in the Asia-Pacific Region*. The guidance material was developed based on lessons learned from the South-East Asia–Oceania (SEA-O) FRTO Trial conducted between August 2024 and October 2025, involving

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multiple States, Air Navigation Service Providers (ANSPs), and airline operators. The trial demonstrated operational, environmental, and economic benefits through enhanced flight planning flexibility, reduced fuel consumption, lower emissions, and improved cross-border collaboration. The document consolidated regional experiences, lessons learned, and best practices to support States, ANSPs, and airspace users in the safe, structured, and harmonized implementation of FRTO initiatives.

6.4.2 The guidance material provided a comprehensive roadmap for FRTO implementation, encompassing stakeholder engagement, regulatory alignment, airspace design, safety risk management, technology requirements, operational trials, performance monitoring, and regional harmonization. The guidance emphasized the importance of a phased implementation approach, progressing from direct routing and user-preferred routes (UPRs) to Free Route Airspace (FRA), and ultimately to large-scale cross-border FRA, while maintaining robust safety oversight and continuous performance evaluation. Through case studies and implementation experiences from APAC States, the guidance material highlighted practical lessons learned and reinforced the importance of collaboration among regulators, ANSPs, airlines, and military stakeholders.

6.4.3 It was highlighted that the guidance material had undergone several iterations and reviews by key AAC Workstream 4 members, participants of the SEA-O FRTO Trial, and the AAC prior to its endorsement. The document was subsequently submitted to the Sixth Meeting of the APAC ANSP Committee (AAC/6, Da Nang, Viet Nam, 6 July 2026), where it received endorsement from the Committee members. The *Guidance Material for the Implementation of FRTO in the Asia-Pacific Region (Version 1.0)*, as provided in **ATM/SG/14 WP/32 Appendix A**, was made available on the AAC section of the ICAO APAC Office website. States/Administrations were encouraged to utilize the guidance material as a reference to support future FRTO initiatives and advance the objectives of the ICAO GANP and the *Asia/Pacific Seamless ANS Plan*.

6.4.4 Indonesia reaffirmed its commitment to supporting the continued implementation of FRTO in the APAC region and encouraged the continued sharing of operational results and implementation experience, including operational efficiency and environmental benefits, to facilitate wider implementation across the APAC region.

Proposal for Advancing Regional Collaboration and Accelerating Parallel Route A1 Implementation (WP/33)

6.4.5 China and Hong Kong China presented a proposal to advance regional collaboration and accelerate the implementation of parallel route to ATS route A1, highlighting the increasing operational significance of the route linking Southeast Asia and Northeast Asia. Rapid traffic recovery and sustained growth had increased demand on the route and further intensified challenges related to airspace capacity, controller workload, flight level allocation, and air traffic management. Particular attention was drawn to the operational complexities arising from the current bi-directional route structure, including flight conflicts associated with terminal operations in the Sanya and Da Nang areas, as well as traffic surges caused by weather-related rerouting during major tropical cyclone events. These developments underscored the need for enhanced route efficiency, operational resilience, and regional coordination to support future traffic growth.

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6.4.6 Progress achieved under the South China Sea Traffic Flow Review Group (SCSTFRG) was also highlighted, including consensus among the concerned States/Administrations on the establishment of parallel unidirectional routes as a regional priority. Agreement had been reached on key technical elements, including the allocation of the northern route for westbound traffic and the southern route for eastbound traffic, while discussions on remaining technical parameters continued among the relevant parties. Ongoing coordination between the Civil Aviation Administration of China, the Civil Aviation Department of Hong Kong, China, and the Viet Nam Air Traffic Management Corporation was noted, together with the need for strengthened cross-FIR communication and collaboration. Continued engagement with ANSPs, airlines, IATA, and other operational stakeholders was encouraged to facilitate implementation, optimize operational arrangements, and enhance the safety, efficiency, and resilience of the regional air navigation system.

6.4.7 IFALPA supported the establishment of a parallel ATS route to A1 and emphasized that implementation should be supported by appropriate safety assessments and close coordination among the States concerned.

Establishment of a Parallel ATS Route to A1 ATS Route (Flimsy/01)

6.4.8 The Meeting considered the proposal presented by Viet Nam on the establishment of a parallel ATS route to A1. The Meeting noted the operational importance of ATS route A1 in supporting traffic between Northeast Asia and Southeast Asia and the continuing increase in traffic demand in the region. The Meeting further noted that the establishment of a parallel route was intended to enhance flight safety, increase airspace capacity, improve air traffic flow and provide operational benefits to airspace users.

6.4.9 The Meeting recalled that the development of a parallel ATS route had been discussed at successive meetings of the SCSTFRG and the SAIOSEACG since 2023. The Meeting noted that the relevant States had reached a common understanding on the route concept and that SCSTFRG had encouraged the timely implementation of the agreed arrangements with a view to commencing trial operations in 2027.

6.4.10 Viet Nam informed the Meeting that it had been progressing the implementation of a uni-directional RNAV 2 parallel ATS route connecting to the existing ITBAM waypoint at the Sanya FIR boundary, consistent with the proposals discussed by the relevant coordination groups. The Meeting noted that Viet Nam had reported its implementation progress to SCSTFRG/13.

6.4.11 The Meeting noted the views expressed by the States/Administrations concerned regarding the proposed establishment of a parallel ATS route to A1, including their continued support for the initiative and the need to resolve the remaining technical issues through further coordination.

6.4.12 The Chairperson encouraged the States/Administrations concerned to continue discussions through the appropriate coordination mechanisms to resolve the remaining issues and report progress at a future meeting, as appropriate.

Outcome of Data-Driven Airspace Efficiency Study on ATS Route Proposals at Europe-Asia Interface (WP/34, SP/03)

6.4.13 IATA presented the outcomes of its Data-Driven Airspace Efficiency Study, conducted in collaboration with airlines, ANSPs, and other industry stakeholders to address airspace efficiency challenges at the Europe–Asia interface arising from geopolitical conflicts, airspace restrictions, and shifting traffic flows. The study focused on key FIRs including Almaty, Lanzhou, Urumqi, and Ulaanbaatar, where increasing traffic demand and airspace constraints had affected operational performance. The Meeting noted that the study applied a comprehensive data-driven and performance-based methodology, including analysis of historical flight and NOTAM data, statistical modelling,

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stakeholder consultations, technical site visits, and multi-dimensional performance assessments. An industry validation workshop involving representatives from States, ANSPs, airlines, and international organizations was also conducted, resulting in broad endorsement of the study methodology and findings.

6.4.14 The Meeting further noted that simulations covering 68,256 flights demonstrated significant potential benefits from the proposed ATS route optimizations through the Urumqi and Ulaanbaatar FIRs. Analysis indicated that 14.4 per cent of flights had been affected by NOTAM-related airspace restrictions, resulting in substantial delays, while the proposed alternative routes could potentially reduce annual flight time by approximately 4,968 hours, fuel consumption by 33,530 tonnes, CO_2 emissions by 105,623 tonnes, route charges by approximately USD 2.04 million, and delay time by 13,084 hours. The Meeting was informed of the strategic value of the proposed ATS routes in enhancing regional airspace resilience and operational efficiency and noted IATA's recommendations for strengthened cross-border and civil-military cooperation, the adoption of data-driven decision-making approaches, and the progressive development of digital and technology-enabled airspace management solutions.

6.4.15 The Meeting noted Mongolia's support for the initiative and its willingness to cooperate with IATA and the States concerned. China acknowledged the value of the study and indicated its willingness to continue dialogue with IATA while noting that some proposals might had limited feasibility in the short term due to broader airspace considerations. The Meeting emphasized the importance of strengthening cross-border collaboration and data exchange to enhance common situational awareness during periods of restricted airspace availability.

6.4.16 The Secretariat informed the Meeting that the ATS route proposals provided in the paper had been incorporated into the draft *Asia/Pacific Region ATS Route Catalogue (Version 26)*, which would be reviewed under **ATM/SG/14 WP/35**.

Asia/Pacific Region ATS Route Catalogue (WP/35)

6.4.17 The Secretariat provided the latest updates to the *Asia/Pacific Region ATS Route Catalogue*, which had been under continuous review since 2004 and had helped track current and future regional air traffic needs. The most recent update (Version 25.2) incorporated feedback and coordination outcomes from BOBTFRG/7 and SAIOSEACG/5, and was intended to improve operational efficiency, environmental performance, and cross-regional connectivity.

6.4.18 The following updates were discussed:

a) route proposals presented by IATA in **ATM/SG/14 WP/34** had been incorporated as IATA 03 and IATA 04;

b) SCS 19: the PfA on the establishment of ATS route M757 had been approved (State Letter T3/2.6, T3/3.1-AP019/26 (ATM) dated 3 February 2026 referred). Malaysia and Thailand were requested to confirm whether the implementation of the ATS route had been promulgated in their respective AIPs. Following publication, SCS 19 would be removed;

c) feedback received from Japan on FE0008 / RDGE 15.003 / APAC RUS 5, FE0021 / RDGE 13.028 / APAC RUS 4, and FE0056 / RDGE 20.017 had been incorporated;

d) WPC 01: Philippines commented that the route proposal was not feasible for implementation due to safety concerns and proposed for removal; and

e) Thailand updated the route descriptions for BOB 03 as follows: Route 1: BKK (1353.61N 10035.78E) – **GUSOP** – New POXEM – PTN (1648.78N 9446.78E); and Route 2: BKK (1353.61N 10035.78E) – **IKIGO** – DAMIM – PUMEK (1528.64N

9748.61E) – BGO (1719.11N 9631.20E). Implementation was expected in September 2027.

6.4.19 The Meeting reviewed and agreed to the updated *Asia/Pacific Region ATS Route Catalogue (Version 26)*, as provided in **Appendix M** to the Report, which would be published on the ICAO APAC Office eDocuments webpage.

Establishment of ATS Route L770 (IP/12)

6.4.20 The Meeting noted the planned implementation of the new unidirectional ATS route L770, based on the RNAV 2 navigation specification, which had been jointly developed by China, Lao PDR and Thailand, to enhance connectivity between the Bangkok and Kunming FIRs and accommodate the increasing regional air traffic demand. The initiative had progressed through a series of coordination meetings and technical workshops since 2024, and it was reported that ATS route L770 would reduce flight distances by approximately 27.5 to 35.2 NM, thereby enhancing operational efficiency. The Meeting further noted that the required approvals had been obtained from the relevant authorities, operational coordination arrangements had been updated, and the route had been scheduled for implementation on 3 September 2026. In addition, the Meeting noted that the establishment of ATS route L770 represented the first phase in the development of a unidirectional parallel route structure intended to supplement ATS route A581.

6.4.21 The Meeting noted China's update on the coordinated implementation of new ATS route entry and exit points at the China–Lao PDR interface, with implementation planned before the end of 2026.

Progress Update on Direct Route Operations (DRO) Implementation Initiative in Malaysia (IP/19)

6.4.22 Malaysia presented its progress in implementing DRO within the Kuala Lumpur FIR (KL FIR) and KK FIR, as part of its broader FRTO initiative aimed at improving airspace efficiency, operational performance, and environmental sustainability. Malaysia reported that the phased implementation, which commenced in 2025, successfully introduced direct routing opportunities following comprehensive safety assessments, stakeholder consultation, and operational evaluations. Further enhancements were implemented in 2026, including five additional direct routes within the KL FIR that reduced flight distances and supported more efficient flight trajectories. The initiative demonstrated effective collaboration among operational, planning, and aeronautical information management functions, while maintaining required safety and operational oversight. Malaysia also highlighted ongoing efforts to identify further route optimization opportunities through engagement with airspace users and neighbouring ANSPs, including the potential development of cross-boundary direct routing concepts, as part of its long-term vision for progressive implementation of FRTO across KL FIR and KK FIR.

Agenda Item 6: ATM Coordination and Implementation

6.5 Civil-Military ATM Cooperation

Outcomes of the Inter-Regional Workshop on Civil-Military Cooperation in ATM and Flexible Use of Airspace (WP/36)

6.5.1 The Secretariat presented the outcomes of the ICAO Inter-Regional Workshop on Enhanced Civil-Military Cooperation in Air Traffic Management (CMAC) and Flexible Use of Airspace (FUA) Implementation, held in Bangkok, Thailand, from 19 to 23 January 2026. The

Workshop brought together over 110 participants from civil aviation authorities, ANSPs, military organizations, international organizations and industry stakeholders from the APAC and European (EUR) regions. Participants exchanged implementation experiences, discussed challenges and best practices, visited the joint civil-military Airspace Management Cell (AMC) of AEROTHAI, and took part in practical exercises on airspace management and civil-military coordination. The Workshop highlighted the importance of CMAC and FUA as key enablers of airspace capacity, operational efficiency, safety and environmental sustainability.

6.5.2 The Meeting noted the Workshop recommendations aimed at advancing FUA implementation in the APAC region, including the development of regional templates for Airspace Use Plans (AUPs) and Updated Airspace Use Plans (UUPs), enhancement of procedures for airspace-use information exchange, promotion of machine-readable information formats, and the establishment of key performance indicators to assess FUA effectiveness. The Meeting further discussed on the proposal to establish an APAC Flexible Use of Airspace Task Force to develop regional guidance material and support harmonized implementation across the region, and agreed on the following Decision:

Decision ATM/SG/14-15: Establish APAC Flexible Use of Airspace Task Force

That, the APAC Flexible Use of Airspace Task Force be established to develop regional guidance material that include but not limited to, the following tasks:

a) develop a regional template for airspace use plan (AUP) and updated airspace use plan (UUP) for FUA operations;

b) review and update the APAC document on NOTAM Templates for FUA in accordance with the relevant ICAO provisions and the guidance;

c) develop procedures to support efficient and effective promulgation of airspace use information, including machine readable output format; and

d) review and/or develop regional KPIs to measure FUA effectiveness.

6.5.3 In response to an enquiry, the Secretariat commented that matters relating to the use of military and/or joint civil-military aerodromes as alternate aerodromes were not currently included in the draft TOR of the APAC Flexible Use of Airspace Task Force. It was noted that the draft TOR (**ATM/SG/14 WP/36 Appendix B**) would be further discussed and finalized during the inaugural meeting of the Task Force.

6.5.4 In addition, the Meeting noted the recommendation of the Workshop to withdraw outdated regional guidance materials on CMAC/FUA, recognizing that the *Manual on Civil-Military Cooperation in Air Traffic Management* (ICAO Doc 10088) had provided comprehensive and globally applicable guidance on CMAC, and agreed on the following Conclusion:

Conclusion ATM/SG/14-16: Withdraw Outdated Materials on CMAC/FUA from the ICAO APAC Office eDocuments Webpage

That, the following documents be withdrawn from the ICAO APAC Office eDocuments webpage:

a) APAC Flexible Use of Airspace (FUA) Manual Template; and

b) Interim Guidance Material on Civil/Military Cooperation in Air Traffic Management.

6.5.5 The Meeting invited the States/Administrations to take appropriate actions in accordance with the Recommendations from the ICAO Inter-Regional Workshop on CMAC/FUA (**ATM/SG/14 WP/36 Appendix A**).

Survey Outcome on Civil-Military Cooperation in ATM and Flexible Use of Airspace

Implementation in APAC Region (WP/37, SP/04)

6.5.6 The Meeting noted the results of an ICAO APAC Survey on Civil-Military Cooperation in Air Traffic Management (CMAC) and Flexible Use of Airspace (FUA) which was circulated via a State Letter [RSO – AP104/25 (RSO)] in September 2025. 22 States/Administrations had completed the Survey and provided a single response respectively to the ICAO APAC Office before 31 March 2026. Participating organizations of each States/Administrations include Civil Aviation Authorities (CAAs) and/or ANSPs.

6.5.7 Key findings indicated that implementation maturity varies significantly among responded States/Administrations. While three States had fully implemented all ten CMAC/FUA elements identified by APANPIRG, most respondents were at varying stages of development. Approximately half of the respondents had established high-level civil-military coordination bodies, and Special Use Airspace (SUA) management is the most widely implemented element. FUA implementation was progressing, with 12 States/Administrations reported implementation and six more under development, although fully mature, all-phased FUA remains limited.

6.5.8 The Survey highlighted growing recognition of the importance of civil-military data sharing and ATM system integration, with 14 respondents reported data sharing interoperability between civil and military systems. However, gaps remained in areas such as the establishment of joint civil-military Airspace Management Cell (AMC), common civil-military training, performance monitoring of FUA operations, integration with initiatives such as ATFM, FRA, and UAS/RPAS operations, as well as the establishment of comprehensive regulatory frameworks.

6.5.9 The principal challenges identified were limited financial, technical and human resources, technological differences between civil and military systems, national security concerns, insufficient regulatory frameworks, and limited technical guidance. Nevertheless, respondents reported significant benefits from CMAC/FUA implementation, particularly in terms of safety, capacity enhancement, operational efficiency, contingency response, and fuel/emissions reduction.

6.5.10 Respondents emphasized the value of strong institutional arrangements, regular civil-military coordination mechanisms, and joint training programmes. Priority areas for future development include strengthening strategic coordination frameworks, expanding FUA implementation, and enhancing civil-military data sharing and system integration. Respondents also requested ICAO support through regional guidance material, technical guidance, workshops, training programmes, and assistance in developing national strategies.

6.5.11 The Meeting emphasized the need for States/Administrations continue establishing high-level civil-military coordination mechanisms, implement phased FUA and three-level ASM concepts, strengthen post-operational assessment processes, enhance joint civil-military training or workshop as a low-cost, high-trust building measure, further the civil-military data sharing interoperability and ATM system integration, and share best practices.

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Agenda Item 7: AOP, AIM, MET, SAR

Outcomes from MET SG/28 Relevant to ATM/SG (WP/38)

7.1 The Secretariat presented the outcomes of the Thirtieth Meeting of the Asia/Pacific Meteorology Sub-Group (MET SG/30, Bangkok, Thailand, 20 – 24 July 2026) that were relevant to the work programme of the ATM/SG. It was noted that MET SG/30 had reviewed progress in aeronautical meteorological service implementation, with particular emphasis on meteorological support for ATM operations, SWIM-enabled services, ICAO Meteorological Information Exchange Model (IWXXM) implementation, Air Navigation Deficiency management, aviation hazard information, and *APAC ANP Volume III* development. The Meeting further noted the continued efforts to strengthen operational integration between meteorological and ATM stakeholders through collaborative initiatives and future MET/ATM engagement activities.

7.2 The Meeting noted that MET SG/30 had approved updates to the *APAC Regional Guidance for Tailored Meteorological Information and Services to Support ATM Operations* and had adopted ***Decision MET SG/30-08*** to support the continuous improvement of meteorological services used in ATM decision-making. The Meeting also noted ongoing regional challenges associated with the implementation of the IWXXM, including version compatibility, dissemination capabilities, and supporting communication infrastructure. In this regard, MET SG/30 had formulated draft conclusions to promote harmonized IWXXM implementation and strengthen regional and global meteorological information exchange in support of ATM modernization and SWIM initiatives.

7.3 With respect to Air Navigation Deficiencies, the Meeting noted that MET SG/30 had reviewed a number of outstanding MET deficiencies affecting the region and had adopted conclusions concerning the provision of IWXXM SIGMETs, meteorological advisories, and METAR/TAF information. The Meeting further noted concerns regarding differing interpretations of APANPIRG Air Navigation Deficiency identification and management procedures and that ***Action Item MET SG/30-02*** had been established to seek clarification and promote consistent application across APANPIRG contributory bodies. The outcomes were recognized as having direct relevance to ATM-related deficiency monitoring, assessment, and resolution activities.

7.4 The Meeting also noted the discussions on volcanic activity information dissemination and the continued development of the APAC ANP Volume III. In particular, MET SG/30 had identified the need for further consideration of Volcano Observatory Notice for Aviation (VONA) dissemination arrangements and had requested coordination with ATM/SG due to the operational implications ATM. The Meeting further noted feedback from MET SG/30 regarding the need for clearer identification of MET-related implementation expectations, priorities, targets, and indicators within *APAC ANP Volume III*, recognizing the importance of these elements in supporting regional implementation planning, performance monitoring, and future air navigation improvements.

Provision of NOTAM for Volcanic Activity (WP/39)

7.5 New Zealand presented the provision of NOTAM for volcanic activity, including developments following MET SG/30 regarding the reporting of volcanic activity in Tonga. The Meeting noted the establishment of national coordination arrangements to support the dissemination of VONA and the issuance of NOTAM to improve awareness of volcanic hazards.

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7.6 The Meeting further noted recent developments within the ICAO Meteorology Panel concerning the provision of information on significant pre-eruptive volcanic activity. It was explained that a VONA with an aviation colour code of yellow or higher may constitute an operationally significant change in volcanic activity, and that updated guidance in the *Handbook on the International Airways Volcano Watch* (ICAO Doc 9766) to published later this year, recommended that NOTAM issued for pre-eruptive volcanic activity within an FIR should normally specify an upper limit of UNL, unless otherwise advised by the relevant State Volcano Observatory.

7.7 Recognizing the importance of ensuring consistent notification of pre-eruptive volcanic activity to support flight planning and operational safety, the Meeting agreed that the harmonization of NOTAM practices and associated text within the APAC region should be further considered in coordination with the appropriate AIM, MET and ATM experts.

7.8 The Meeting agreed that this matter would be further discussed at the Twenty-Second Meeting of the AIS – AIM Implementation Task Force (AAITF/22) in 2027.

Facilitating Industry Shift to Data-driven Turbulence Mitigation (SP/05)

7.9 The Meeting noted the presentation by IATA on facilitating the industry's transition to data-driven turbulence mitigation. The presentation highlighted the increasing safety and operational impacts of turbulence and described the limitations of traditional turbulence reporting methods, including subjective pilot reports and forecast-based information. The Meeting noted that advances in aircraft technology now enable the objective measurement of turbulence using Eddy Dissipation Rate (EDR) data.

7.10 The Meeting was informed of IATA's Turbulence Aware programme, a global platform for the real-time sharing of anonymized EDR turbulence data. The programme enables participating airlines to share objective turbulence information while retaining ownership of their data and supports integration with flight planning, Electronic Flight Bag (EFB), ATM and meteorological systems to enhance operational situational awareness.

7.11 Continued growth of the Turbulence Aware programme was noted, with increasing numbers of participating aircraft, airlines and turbulence reports. Potential operational benefits identified included improved flight planning and turbulence avoidance, enhanced air traffic flow management, support for meteorological research and SIGMET validation, and improved safety through the availability of objective, real-time turbulence information.

7.12 The Secretariat informed the Meeting that PIRG & RASG Regional Coordination Meeting twice annually to discuss subjects of common interest. The Secretariat further informed the Meeting that turbulence encounters had been added to the common subjects in the previous year, with RASG-APAC serving as the lead and the ATM and MET sections coordinating the matter on behalf of APANPIRG. The Secretariat also indicated its intention to include the outcomes of the coordination meetings in future ATM/SG reports.

AIS – AIM Implementation Task Force (AAITF/21) Outcomes (WP/40)

7.13 The Meeting noted the outcomes of the Twenty-First Meeting of the AIS – AIM Implementation Task Force (AAITF/21) relevant to ATM operations. The Meeting recognized that the work of AAITF continues to support the implementation of digital AIM capabilities, the improvement of aeronautical information quality, the resolution of duplicated Five-Letter Name Codes (5LNC), the development of SWIM-enabled information services, and the implementation of FF-ICE and TBO.

7.14 The Meeting reviewed the regional implementation status of Phase III of the *Asia/Pacific Regional Plan for Collaborative AIM*, as illustrated in **Figure 2**, and noted that implementation

remained at an early stage. Recognizing the need to align the regional plan with evolving ICAO digital AIM provisions and the migration of regional planning material to the *APAC ANP Volume III*, the Meeting supported ***Conclusion AAITF/21-2***, which revised the implementation timeline for Phase III to 20 November 2031.

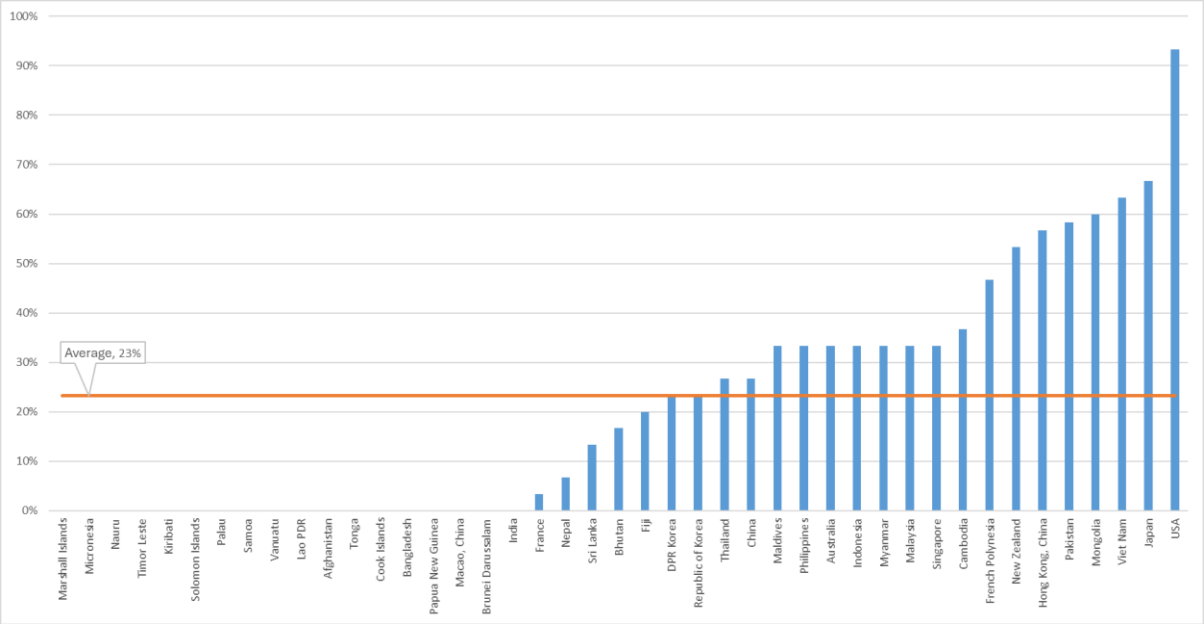

Figure 2. Regional Phase III Implementation Progress

7.15 The Meeting also reviewed the regional analysis of NOTAM, as illustrated in **Figure 3**. While noting improvements in reducing the number of old NOTAM, concern was expressed over the continued proliferation of active NOTAM and the use of long-duration or repeatedly replaced NOTAM in circumstances where the information should have been incorporated into the AIP or an AIP Supplement. The Meeting recognized that improvements in NOTAM quality would enhance flight planning, controller situational awareness and operational decision-making, and noted the importance of maintaining current AIS points of contact to support the timely dissemination of aeronautical information during contingency situations.

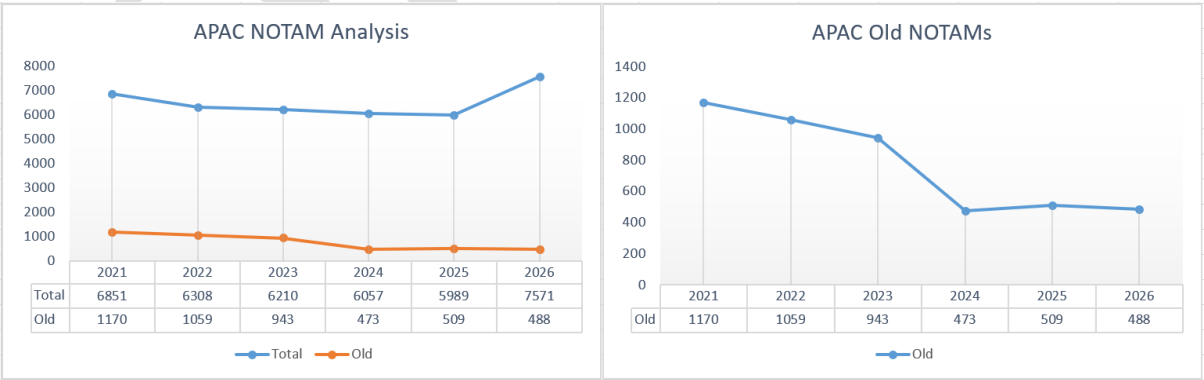

Figure 3. Regional NOTAM Analysis

7.16 Progress of the APAC 5LNC Ad Hoc Group in addressing the shortage and duplication of waypoint identifiers, including the utilization of Five-Alpha Numeric Name Codes (5ANNC), continued ICARD coordination and the resolution of duplicated 5LNCs, was noted. The Meeting also recognized that duplicated waypoint identifiers could adversely affect CPDLC route uplink, flight management systems and future FF-ICE and TBO operations, and supported ***Conclusion AAITF/21-1***, encouraging States/Administrations to consider the use of 5ANNC and share implementation

experience and best practices.

7.17 The Meeting was reminded of the outcome of AAITF/19 (Bangkok, Thailand, 10–14 June 2024), which agreed that States should plan well in advance when submitting 5LNC requests through ICARD. States were requested to limit submissions to a maximum of 10 5LNC requests per week. Where more than 40 requests were expected to be submitted over any four consecutive weeks, States were requested to notify ICAO by email at least two weeks in advance. AAITF/19 also recommended that States allow a minimum processing period of 30 working days.

7.18 Continuing developments relating to digital AIM, SWIM-enabled aeronautical information services and *APAC Common SWIM Information Services* were also noted. National implementation initiatives and the work of the APAC 5LNC Ad Hoc Group were recognized as important steps towards supporting machine-readable aeronautical information, system-wide information management, FF-ICE and future trajectory-based operations.

7.19 The Meeting noted Japan's update on the implementation of Information Services, which commenced on 4 March 2026, and its emphasis on the importance of establishing effective national governance arrangements, engaging AIS units and stakeholders at an early stage, and preparing for the regional transition to AIXM 5.1.1. Japan also highlighted the need to strengthen data migration and GIS capabilities, develop clear operational concepts and service descriptions, and ensure that future services meet diverse user requirements through both web-based interfaces and API services.

7.20 The Meeting also noted Pakistan's update on its implementation of the 5LNC replacement programme, under which more than 150 duplicated 5LNCs had been replaced, resulting in no duplicated 5LNCs within Pakistan. Pakistan expressed reservations regarding the potential future use of five-letter alphanumeric codes for ATC purposes, noting the need for further study to ensure compliance with ICAO requirements for unique 5LNCs.

7.21 China and Pakistan highlighted that ICAO Annex 11 and the *Procedures for Air Navigation – Aircraft Operations* (PANS-OPS, ICAO Doc 8168) currently specified the use of 5ANNC in support of RNAV SIDs, STARs, and instrument approach procedures, but not for en-route phases. It was therefore suggested that the ICAO ATM Operations Panel (ATMOPSP) be consulted regarding the proposal to utilize 5ANNC for the en-route phase, taking into consideration compliance with, and any potential amendments to, ICAO Annex 11 and PANS-OPS.

7.22 The Meeting acknowledged that the availability of unique 5LNCs continues to present a challenge and recognized the need to consider future approaches to address the limited availability of 5LNCs.

Challenges of 5LNC Utilization and Suggestions to ICARD (WP/41)

7.23 The Meeting considered a paper presented by China on the challenges associated with the utilisation of 5LNCs and suggestions for improvements to the ICAO ICARD. The paper highlighted the increasing demand for 5LNCs, resulting in growing difficulties in obtaining suitable new name-codes, longer processing times for ICARD applications and challenges associated with sound-like proximity checks.

7.24 It was also noted that certain sound-like combinations, such as AGTAP, AGTOB and AGTEL, had been approved by ICARD despite operational concerns identified during controller simulations. In addition, the paper referred to the implementation status of ***Conclusion ATM/SG/13-8***, noting that unallocated identifiers beginning with the letter "X" remained available for selection in ICARD.

7.25 Several improvements were presented, including enhancements to ICARD functionality

and sound-like screening algorithms, a review of approval procedures and timelines, accelerated implementation of ***Conclusion ATM/SG/13-8***, and further consideration of the wider use of 5ANNCs. In response, the Secretariat informed the Meeting that these matters had already been discussed by the APAC 5LNC Ad Hoc Group under the AAITF. With regard to ICARD applications, the Secretariat recalled that the AAITF had agreed that, where practicable, large numbers of 5LNC requests should be submitted in phases rather than as a single batch to facilitate more efficient processing. The Secretariat also advised that, owing to the increasing number of applications and the limited human resources available for ICARD processing, longer processing times might occasionally be unavoidable.

7.26 Regarding ICARD-related issues, the Secretariat recalled that the APAC 5LNC Ad Hoc Group continued to consider matters related to the further development of ICARD. The Meeting was further informed that representatives of the Ad Hoc Group had been nominated to participate in ICAO HQ-led discussions on ICARD to ensure that the operational experience and regional requirements of the APAC Region are appropriately reflected in future global developments.

7.27 The Meeting acknowledged China's willingness to join the APAC 5LNC Ad Hoc Group for further discussions on ICARD-related matters. The Meeting noted that China's participation would facilitate the exchange of views and contribute to the Group's ongoing work.

Progress on Aerodrome-related Information Services for the APAC Common SWIM Aeronautical Information Services (WP/42)

7.28 The Meeting considered a paper presented by the Secretariat on the progress of the APAC Common SWIM Aeronautical Information Services relating to the Aerodrome Feature Service and the Runway Surface Condition Report Service. The Meeting noted that the APAC Common SWIM Aeronautical Information Services Ad Hoc Group had developed the initial set of regional information services, which had been endorsed by APANPIRG/36, and had subsequently conducted further reviews with aerodrome subject matter experts (SMEs) to ensure that operational aerodrome requirements were appropriately reflected.

7.29 The Ad Hoc Group had agreed to proposed amendments to the Aerodrome Feature Service, including revisions to the service description and clarification of the information to be exchanged. The revised proposal was confirmed to remain consistent with the APAC Common SWIM Aeronautical Information Services framework and to support harmonised implementation using the Aeronautical Information Exchange Model (AIXM).

7.30 The Group had also undertaken extensive discussions on the proposed Runway Surface Condition Report Service, including the service description, terminology relating to runway condition codes, the relationship with the ICAO Global Reporting Format (GRF) and SNOWTAM, the inclusion of runway condition reports and pilot reports of runway braking action, and consistency with the provisions of ICAO Annex 14. As a result, the service description had been revised to directly reference the GRF, and the information to be exchanged had been simplified by identifying the Runway Condition Code (RWYCC) as the primary information element.

7.31 The Meeting recognised that the proposed amendments would support the harmonised digital exchange of aerodrome information within the SWIM environment and facilitate the regional implementation of SWIM-enabled ATM capabilities, including FF-ICE, Digital NOTAM and TBO. The Meeting agreed to the proposed amendments and supported their submission to the AOP/SG for endorsement, followed by consideration by SWIM TF at its next available opportunity.

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Asia/Pacific Search and Rescue Update (WP/43)

7.32 The Eleventh Meeting of the Asia/Pacific Search and Rescue Workgroup (APSAR/WG/11) was held in Bangkok, Thailand from 5 to 8 May 2026. A SAR Workshop was held in conjunction with APSAR/WG/11 on 5 May 2026. Topics covered included an overview of System-Wide Information Management (SWIM) and SWIM information services; the Global Aeronautical Distress and Safety System (GADSS) concept; Autonomous Distress Tracking (ADT) provisions and aircraft equipage; and an introduction to the Location of an Aircraft in Distress Repository (LADR) and the OPS Control Directory, including a demonstration for registering and accessing information.

7.33 APSAR/WG/11 noted that, based on analysis of 16 USOAP SAR-related PQs in April 2026, the overall EI for SAR had slightly increased to 59 per cent compared with 55 per cent in the previous year. The PQ analysis identified persistent weaknesses in key SAR areas, notably SAR coordination agreements; implementation of training plans for SAR inspectors; effective regulatory surveillance oversight of SAR; detailed SAR operational plans; and verification that SAR operational personnel received regular training, including participation in SAR exercises.

7.34 **Figure 4** illustrated the *Asia/Pacific SAR Plan* implementation status as of 13 July 2026, based on the annual *Regional SAR Plan Monitoring and Reporting Form*, and noted that the majority of States/Administrations had achieved compliance of 70% or higher.

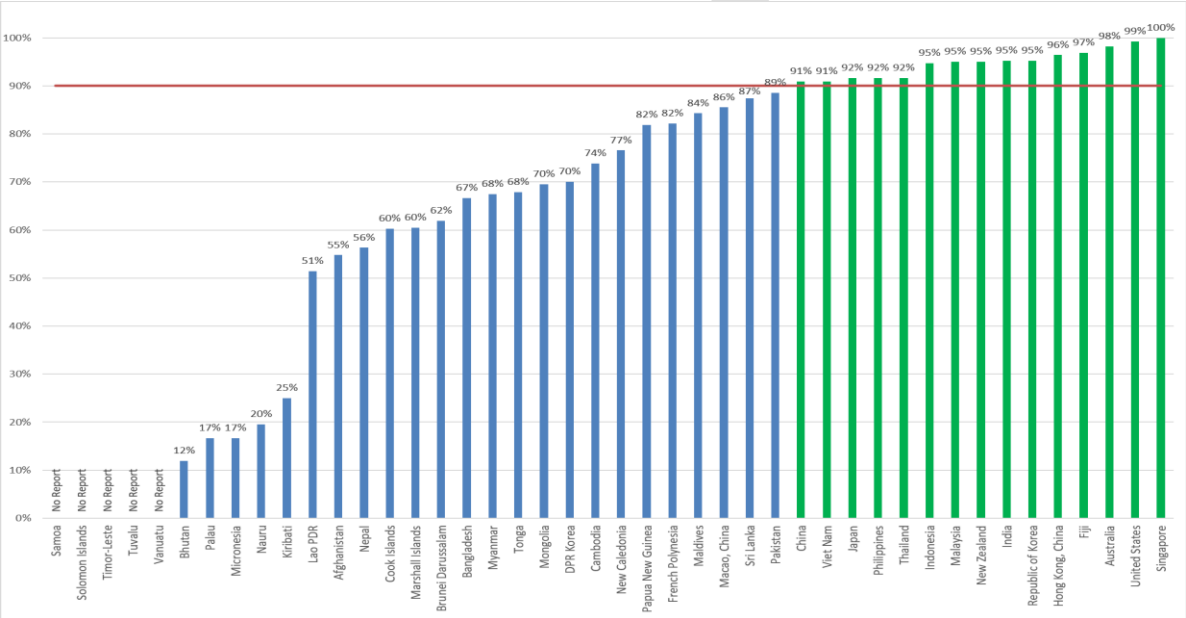

Figure 4. Asia/Pacific SAR Plan Implementation Status, as of 13 July 2026

7.35 Following ***Conclusion ATM/SG/13-10***, only 12 Administrations had submitted annual updates on SAR Rescue Unit (SRU) capabilities to the ICAO APAC Office by 28 February for units approved to operate in neighbouring Search and Rescue Regions (SRRs). APSAR/WG/11 noted that submission of SRU capability information had been voluntary and did not constitute a commitment to provide SAR assistance. States/Administrations were requested to notify the ICAO APAC Office if submission had not been feasible due to sensitivity, and to indicate "Not Applicable (NA)" in the annual *Regional SAR Plan Monitoring and Reporting Form* where appropriate. The submitted SRU capability information had been posted on the ICAO APAC Office eDocuments webpage.

7.36 ***APSAR/WG Task List Action Item 10/2***, which had called on APAC Administrations to intensify efforts for ADT implementation, prompted the ICAO APAC Office to conduct a 2026 follow-up survey to assess anticipated improvements. Only 17 Administrations responded, and the results showed measurable progress across all four categories (States, aircraft operators, SAR service providers and ANSPs) with overall positive responses rising from 48 per cent to 61 per cent, but limited participation and low levels of procedure promulgation and training completion underscored the need for sustained, accelerated regulatory, procedural and training actions to achieve full ADT implementation.

Agenda Item 8: Any Other Business

National Air Navigation Plan (NANP) Implementation (Flimsy/02)

8.1 The Secretariat introduced the planned implementation support initiatives for the period 2026–2028 to assist States in developing, updating and implementing National Air Navigation Plans (NANPs) aligned with the GANP and the Regional Air Navigation Plan (RANP). The Meeting noted that the initiatives, subject to the availability of resources, were expected to be coordinated between ICAO HQ and the Regional Offices and delivered through regional workshops, technical guidance and targeted assistance to strengthen States' capacity to implement GANP-aligned NANPs.

8.2 The Meeting noted that NANPs provided a coordinated national framework for the implementation of air navigation improvements, taking into account the GANP, the applicable RANP and national priorities, and that they supported the translation of regional priorities into nationally coordinated implementation programmes. The Secretariat encouraged States to review the status of their NANPs and identify areas where implementation assistance might be required to facilitate the planning of future support activities. The Secretariat advised that further details would be communicated once the implementation support arrangements had been finalised.

ATM Points of Contact (WP/44)

8.3 The ATM Points of Contact List was circulated to all registered ATM/SG/14 participants, for review and update.

Asia/Pacific Regional Points of Contact List for Space Object Launch and Re-entry Activities Coordination (WP/45)

8.4 The *Asia/Pacific Regional Points of Contact List for Space Object Launch and Re-entry Activities Coordination* was circulated to all registered ATM/SG/14 participants, for review and update.

Enhancement of Inter-Regional Coordination (WP/46)

8.5 The Secretariat presented recent developments relating to Project 30/10 implementation at the interface between the APAC and Middle East (MID) regions. The Meeting recalled that AN-Conf/14 had endorsed ***AN-Conf/14 Recommendation 3.1/1 – Project 30/10: Optimized implementation of longitudinal separation minima***, which promoted the harmonized implementation of reduced longitudinal separation minima. In this regard, the Meeting recognized that successful implementation would require effective coordination among adjacent FIRs and ICAO regions. The Meeting further noted the establishment of the APAC Project 30/10 Task Force (AP30-10/TF) and emphasized the importance of inter-regional collaboration in areas such as the application of separation minima, alignment of implementation timelines, communications, navigation and surveillance capabilities, AIDC implementation, coordination procedures, safety assessments, and implementation monitoring.

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8.6 The Meeting also noted the outcomes of recent Special Air Traffic Management Coordination Meeting involving States from the APAC and MID regions, including discussions on operational and technical issues affecting major traffic flows and interface optimization between the two regions. The Meeting further noted Middle East Air Navigation Planning and Implementation Regional Group (MIDANPIRG)'s proposal to establish an APAC–MID Interface Task Force to support Project 30/10 implementation and enhance transparency and coordination. While recognizing the benefits of strengthened inter-regional cooperation, the Meeting considered that further consideration should be given to identifying the most effective and proportionate coordination mechanism, taking into account existing regional arrangements, resource implications, and the effectiveness of established bilateral, multilateral, and special coordination meeting frameworks.

8.7 IFALPA supported enhanced inter-regional coordination through practical operational cooperation rather than additional administrative structures, emphasizing harmonized ATS procedures, enhanced AIDC implementation, joint safety assessments and coordinated contingency planning to support the harmonized implementation of Project 30/10.

8.8 The Meeting recognized the importance of cross-border and inter-regional coordination in harmonizing implementation initiatives, including the application of longitudinal separation minima. The Meeting further noted that the AP30-10/TF's objectives and tasks included promoting and coordinating seamless regional and inter-regional operations, with the objective of supporting the implementation of Project 30/10 by the end of 2028. To avoid duplication of effort, the Meeting considered that implementation and coordination activities should continue to be progressed through existing Special ATM Coordination Meetings (SCMs), bilateral and multilateral coordination mechanisms, and the AP30-10/TF, as appropriate. The Meeting further considered that the establishment of the proposed new Task Force could be considered at a later stage, if necessary, taking into account the progress of implementation and the effectiveness of the existing coordination mechanisms.

Advanced RNP Navigation Specification Inconsistency in ICAO Documents PANS-OPS (Doc 8168) and PBN Manual (Doc 9613) (IP/13)

8.9 Pakistan presented information on identified inconsistencies between the updated Advanced RNP (A-RNP) navigation specification contained in the *Performance-based Navigation (PBN) Manual* (ICAO Doc 9613, 5th Edition) and the provisions currently reflected in *Procedures for Air Navigation Services – Aircraft Operations* (PANS-OPS, ICAO Doc 8168) Volumes I and II. It was highlighted that, although the Advanced RNP framework had been revised to align with updated standards, including the removal of final approach applicability and scalable RNP requirements, the corresponding design criteria and operational references in PANS-OPS had not yet been updated accordingly. The Meeting noted that these inconsistencies could potentially lead to misinterpretation or inappropriate application of the navigation specification, with associated safety and efficiency implications. The Meeting further noted Pakistan's intention to raise the matter at the Thirteenth Meeting of the Performance-based Navigation Implementation Coordination Group (PBNICG/13, Bangkok, Thailand, 14 – 16 October 2026), for further consideration and discussion by the relevant ICAO forum.

Analysis of Fatigue-Related Voice and Video Characteristics between High-Altitude Aerodrome and Low-Altitude Aerodrome Air Traffic Controllers (IP/14)

8.10 he Meeting noted the information presented by China on the comparative analysis of fatigue-related voice and video characteristics of controllers operating at high-altitude and low-altitude aerodromes. The study found that controllers at high-altitude aerodromes exhibited more pronounced fatigue-related voice and facial characteristics, with the high-altitude environment contributing to accelerated fatigue accumulation. The Meeting also noted China's ongoing efforts to enhance fatigue detection through multimodal audio-video analysis and the development of integrated fatigue

monitoring and early warning systems to support controller fatigue risk management.

Key Takeaways from 2025 ATMB & IATA Workshop on APAC ATCO Competency Enhancement and Collaborative Development (IP/15)

8.11 The Meeting was presented the outcomes of the APAC ATCO Competency Enhancement and Collaborative Development Workshop, held in Xi'an, China, in November 2025. The workshop brought together representatives from States, ANSPs, airlines and international organizations to discuss controller competency, operational safety and efficiency, emerging technologies and collaborative operations. The Meeting noted the importance of strengthening cross-border information sharing through regional ATFM collaboration, enhancing operational competencies, and leveraging innovative technologies such as Competency-based Training and Assessment (CBTA), Fatigue Risk Management Systems (FRMS), TBO, FF-ICE and datalink services to improve ATM performance. The Meeting further noted that ATMB and IATA were developing a programme of activities for 2026 and 2027 to support continued regional collaboration and capability development.

Work of ICAO LPRI TF Based on the Results of the IATA Survey on Language Issues in ATC Communication (IP/16)

8.12 The Meeting noted the information presented by IATA on the work of the ICAO Language Proficiency Requirements Implementation Task Force (LPRI TF) Subgroup 2, based on the IATA Survey on Language Issues in ATC Communication. The survey identified communication challenges, including local accents, non-standard phraseology, use of languages other than English, and excessive speech tempo, which increased pilot workload and operational risk. The Meeting further noted that the LPRI TF had developed recommendations to improve communication effectiveness and aviation safety through enhanced standardization, training, oversight and international collaboration.

AAM 2026 (IP/17)

8.13 The Meeting noted the information provided by the Secretariat regarding the Second ICAO Advanced Air Mobility Symposium (AAM 2026), to be held in Bangkok, Thailand, from 1 to 3 December 2026 under the theme “From Vision to Implementation: Enabling the AAM Ecosystem.” The Meeting noted that the symposium would focus on the safe and interoperable implementation of AAM, including regulatory, operational, technological and infrastructure aspects, with particular emphasis on integration into the existing aviation system. The Meeting further noted that the event would promote collaboration and the exchange of implementation experience among States, international organizations, industry and academia.

Outcomes of Gender Equality Indicator Survey (SP/06)

8.14 The Secretariat presented the outcomes of the first *APAC Gender Equality Indicators Survey*, which was conducted to assess the implementation of gender equality indicators across the region in support of ICAO Assembly Resolution A41-26 and the Delhi Ministerial Declaration. The survey received responses from 16 States/Administrations and indicated positive progress in establishing safe and inclusive working environments, supported by workplace protection policies and training programmes. However, the results also highlighted limited adoption of measurable gender equality targets and the continued underrepresentation of women in leadership and decision-making positions. The presentation emphasized the need to move from policy commitments to measurable outcomes through the establishment of national targets, integration of gender equality initiatives into aviation strategies and workforce frameworks, and the strengthening of leadership development opportunities for women, with continued support and monitoring by the ICAO APAC Office.

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Outcomes of the ICAO Global Artificial Intelligence Survey (SP/07)

8.15 The Secretariat presented the outcomes of the *ICAO Global Artificial Intelligence (AI) Survey*, which was conducted in collaboration with ICAO HQ to assess the current status of AI adoption and the development of AI governance frameworks within the aviation sector. The survey findings indicated that, of the 81 responding States/Administrations globally, 29 had established AI governance frameworks and only three reported extensive AI use, while among the 19 APAC respondents, only three had governance frameworks and none reported extensive AI adoption. The presentation further noted that data analysis and decision support and airport operations were the most common areas of AI application, while key challenges included the lack of international standards, limited expertise and skilled personnel, data privacy and security concerns, and safety assurance and certification issues. The survey outcomes highlighted the need for ICAO guidance on global AI principles, safety assurance, and certification frameworks, and informed ongoing discussions on future ICAO initiatives, including further study of AI governance and the possible establishment of a dedicated task force to develop high-level deliverables.

Agenda Item 9: ATM/SG Task List Update

APANPIRG ATM Sub-Group Terms of Reference and Task List (WP/47)

9.1 The Secretariat presented the ATM/SG TOR for review by the Meeting.

9.2 The ATM/SG Task List as updated by the Meeting was provided in **Appendix N** to the Report.

Agenda Item 10: Date and Venue for Next Meeting

ATM/SG/15

10.1 The Fifteenth Meeting of the Air Traffic Management Sub-Group (ATM/SG/15) of APANPIRG would be tentatively held in August 2027, in Bangkok, Thailand.

Closing of the Meeting

11.1 In closing the Meeting, the Chairperson thanked and congratulated the efforts made by the participants for their contributions to the Meeting.

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