



DRAFT REPORT

THE THIRTY-SIXTH MEETING OF THE ASIA/PACIFIC AIR NAVIGATION PLANNING AND IMPLEMENTATION REGIONAL GROUP (APANPIRG/36)

24 to 26 November 2025

Bangkok, Thailand

The views expressed in this Report should be taken as those of the APANPIRG and not of the Organization. This Report will be presented to the Air Navigation Commission/Council and any formal action taken will be published in due course as a supplement to the Report.

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

TABLE OF CONTENTS

PART I - HISTORY OF THE MEETING

	Page
1.1 Introduction	i-1
1.2 Attendance	i-1
1.3 Opening of the Meeting	i-1
1.4 Officers and Secretariat	i-1
1.5 Agenda of the Meeting	i-1
1.6 Working Arrangements, Language and Documentation	i-2
1.7 Conclusions and Decisions – Definition.	i-2
1.8 Terms of Reference of APANPIRG	i-3
1.9 Adoption of Draft Report	i-3
1.10 Closing of the Meeting	i-3
List of Conclusions	i-4
List of Decisions	i-5

PART II – REPORT ON AGENDA ITEMS

Agenda Item 1A	Progress Update on Beijing and Delhi Declaration Commitments	1A-1
Agenda Item 1B	Follow-up on the outcome of APANPIRG/35 Meeting	1B-1
1B.1	Review of the action taken by the ANC/Council on the Report of APANPIRG/35	1B-1
1B.2	Review status of implementation of APANPIRG/35 Conclusions and Decisions	1B-1
Agenda Item 1C	Update on 60 th APAC DGCA Conference Action Items on Air Navigation	1C-1
Agenda Item 1D	Aviation Safety and RASG–APAC activities.....	1D-1
Agenda Item 2	Global and Inter Regional Activities	2-1
	• Update on ICAO Assembly 42 on Air Navigation Matters	

Agenda Item 3	Performance Framework for Regional Air Navigation Planning and Implementation	
3.0	Regional and National Performance Framework	3.0-1
3.1	AOP	3.1-1
3.2	ATM	3.2-1
3.3	RASMAG	3.3-1
3.4	CNS	3.4-1
3.5	MET	3.5-1
3.6:	Other Air Navigation Matters.....	3.6-1
Agenda Item 4	Regional Air Navigation Deficiencies.....	4-1
Agenda Item 5	Future Work Programme	5-1
Agenda Item 6	Any Other Business	6-1

Appendices

Appendices A & B to the Report on Agenda Item 1B

Appendix A to the Report on Agenda Item 3.0

Appendices A to D to the Report on Agenda Item 3.1

Appendix A to the Report on Agenda Item 3.2

Appendix A to the Report on Agenda Item 3.3

Appendices A & B to the Report on Agenda Item 3.4

Appendices A to E to the Report on Agenda Item 4

Attachments to the Report

Attachment 1 – List of Participants

Attachment 2 – Opening Speech

Attachment 3 – List of Papers

Attachment 4 – Terms of Reference of APANPIRG

PART I – HISTORY OF THE MEETING

1.1 Introduction

1.1.1 The Thirty-Sixth Meeting of the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG/36) was held at the Kotaite Wing of the ICAO Asia and Pacific Regional Office Bangkok, Thailand from 24 to 26 November 2025.

1.2 Attendance

1.2.1 The Meeting was attended by **186** participants from **26** Member States, **2** Special Administrative Regions of China, and **6** International Organizations (CANSO, EASA, IATA, ICCAIA, ICAO and IFALPA).

1.2.2 A list of participants is provided at **Attachment 1** to the Report.

1.3 Opening of the Meeting

1.3.1 Mr. Tao Ma welcomed the participants from the Member States, International Organizations and delivered the welcome address to the delegates of APANPIRG/36. The full text of the address by the Regional Director is included as **Attachment 2** to this Report.

1.3.2 First Vice-Chairperson of APANPIRG, Ms. Theresa Levestam, Chief Executive of Civil Aviation Authority of Fiji and Second Vice-Chairperson of APANPIRG, Mr. Han Kok Juan, Director-General of Civil Aviation Authority of Singapore, welcomed the members and delivered the opening address.

1.4 Election of Chairperson and Vice-Chairperson

1.4.1 As Captain Tamayo has retired from the Civil Aviation Authority of the Philippines in February 2025, Mr. Ma Tao, the APANPIRG Secretary, invited the Meeting to provide a nomination to the position of the Chairperson.

1.4.2 The Head of Delegation from India Mr. Bharat Bhushan, Joint Director General, Directorate General of Civil Aviation proposed Ms. Theresa Levestam to be the Chairperson of APANPIRG. He provided a brief resume of Ms. Levestam. This was supported by the Head of Delegation from Lao PDR. The Meeting unanimously elected Ms. Theresa Levestam as the Chairperson of APANPIRG for a three-year term.

1.4.3 Subsequently, Mr. Han Kok Juan as Second Vice-Chairperson of APANPIRG would take up the position as the First Vice-Chairperson of APANPIRG.

1.4.4 For the vacancy of Second Vice-Chairperson, the Head of Delegation from Vanuatu, Ms. Grace Naparau, Director of Civil Aviation Authority of Vanuatu proposed Air Chief Marshal Manat Chavanaprayoon, Director General of the Civil Aviation Authority Thailand. This was supported by the Head of Delegation from Sri Lanka. The Meeting unanimously elected Air Chief Marshal Manat Chavanaprayoon as the Second Vice-Chairperson of APANPIRG for a three-year term.

1.5 Officers and Secretariat

1.5.1 Ms. Theresa Levestam, the Chairperson of APANPIRG presided over the Meeting.

1.5.2 Mr. Ma Tao, Regional Director, ICAO Asia/Pacific Office, was the Secretary of the Meeting.

1.5.3 The Meeting was assisted by Dr. Manjit Singh, Deputy Regional Director, ICAO APAC Office, Technical Officer from Air Navigation Bureau of ICAO Headquarters, and Regional Officers from ICAO APAC Office, Regional Sub-office, Beijing and PSIDS Liaison Office, Fiji.

1.6 Agenda of the Meeting

1.6.1 The Meeting adopted the following Agenda:

- | | |
|-----------------|---|
| Agenda Item 1A: | Progress Update on Beijing and Delhi Declaration Commitments |
| Agenda Item 1B: | Follow-up on the outcome of APANPIRG/35 Meeting |
| 1B.1: | Review of the action taken by the ANC/Council on the Report of APANPIRG/35 |
| 1B.2: | Review status of implementation of APANPIRG/35 Conclusions and Decisions |
| Agenda Item 1C: | Update on 60 th APAC DGCA Conference Action Items on Air Navigation |
| Agenda Item 1D: | Aviation Safety and RASG–APAC activities |
| Agenda Item 2: | Global and Inter Regional Activities <ul style="list-style-type: none"> • Update on ICAO Assembly 42 on Air Navigation Matters |
| Agenda Item 3: | Performance Framework for Regional Air Navigation Planning and Implementation |
| 3.0 | Regional and National Performance Framework |
| 3.1 | AOP |
| 3.2 | ATM |
| 3.3 | RASMAG |
| 3.4 | CNS |
| 3.5 | MET |
| 3.6 | Other Air Navigation Matters |
| Agenda Item 4: | Regional Air Navigation Deficiencies |
| Agenda Item 5: | Future Work Programme |
| Agenda Item 6: | Any Other Business |

1.7 Working Arrangements, Language and Documentation

1.7.1 The working language of the meeting was English inclusive of all documentation and this Report. Working Papers (WP), Information Papers (IP), Presentations (PPT) and Flimsy considered by the Meeting are listed in the **Attachment 3** to this Report and available at APAC website.

1.8 Conclusions and Decisions - Definition

1.8.1 The APANPIRG records its actions in the form of Conclusions and Decisions with the following significance:

- 1) Conclusions deal with matters which, in accordance with the Group's Terms of Reference, require the attention of States or actions by ICAO in accordance with established procedures; and
- 2) Decisions deal with matters of concern only to the APANPIRG and its contributory bodies.

1.8.2 Lists of Conclusions and Decisions are given on pages i-4 to i-5.

1.9 Terms of Reference of APANPIRG

1.9.1 The revised Terms of Reference of APANPIRG approved by the President of the ICAO Council on 20 April 2020 is available in **Attachment 4**.

1.10 Adoption of Draft Report

1.10.1 On 26 November 2025, the Meeting reviewed and adopted the draft report.

1.11 Closing of the Meeting

1.11.1

1.11.2

— — — — —

List of Conclusions

- | | | |
|-------------------------|----------|---|
| Conclusion 36/1 | – | Coordination of Regulatory and Service Provider Personnel Support for ICAO PSIDS-Focused Activities |
| Conclusion 36/2 | – | Action plan for updating of APAC ANP Volume III |
| Conclusion 36/3 | – | Runway Surface Condition Assessment – Adoption of Technology |
| Conclusion 36/4 | – | Acknowledgement of Wildlife Strike as One of the High-Risk Category of Occurrences (HRCs) for Asia and Pacific Regions |
| Conclusion 36/5 | – | Corrigendum to the Asia/Pacific Seamless ANS Plan Version 4.0 |
| Conclusion 36/10 | – | Implementation of CRV for small Pacific Islands and small ANSPs in the region using CRV Solution, CRV SLA Package D+ |
| Conclusion 36/12 | – | Asia/Pacific Regional FIXM version 4.3 Extension |
| Conclusion 36/13 | – | Decision on CRV II contract Management Process |
| Conclusion 36/14 | – | Publishing MET Seminar Presentation Recordings |
| Conclusion 36/15 | – | Management of obsolete planning and implementation guidance documents on the ICAO APAC Office website |
| Conclusion 36/16 | – | IWXXM update notification process |
| Conclusion 36/17 | – | Sharing of Turbulence Reports with Meteorological Service Providers |
| Conclusion 36/18 | – | Enabling the use of QVA by airlines |
| Conclusion 36/19 | – | Update of information in APANPIRG Air Navigation Deficiencies Reporting Form |

List of Decisions

- | | |
|-----------------------|---|
| Decision 36/6 | – Update Air Traffic Management Sub-Group of APANPIRG (ATM/SG) Terms of Reference |
| Decision 36/7 | – Establishment of APAC Project 30/10 Task Force |
| Decision 36/8 | – Modification of Name of ATFM Steering Group (ATFM/SG) to ATFM and A-CDM Steering Group (ATFM & A-CDM/SG) |
| Decision 36/9 | – Update AAITF Terms of Reference (TOR) |
| Decision 36/11 | – Adoption of APAC Common SWIM Information Services, v1.0 |

— — — — —

Agenda Item 1A: Progress Update on Beijing and Delhi Declaration Commitments

Where does APAC Stand with the Delhi Declaration Commitments? (WP/02)

1A.1 The Meeting noted ICAO's updates on the Delhi Declaration Commitments proposing to review the current status of the APAC States' commitments in the field of Air Navigation Services, specifically Aeronautical Information Management (AIM), Efficient ATM separation minima, Performance Based Navigation (PBN), ground telecommunication infrastructure (CRV), SWIM implementation, civil military cooperation, surveillance capability (ADS-B), Air Traffic Flow Management (ATFM) / Collaborative Decision Making (CDM), ATM Contingency Planning, National Air Navigation Plan (NANP) and enhancement of Safety Risk Assessment capability.

1A.2 The Delhi Declaration was adopted in the second *Asia Pacific Ministerial Conference on Civil Aviation* (New Delhi, India, 11-12 September 2024). It recalled commitments from Beijing Declaration adopted in 2018 with additional commitments. The Delhi Declaration aimed to assist Civil Aviation Authorities in ensuring respective Ministers are fully informed about the current challenges and requirements related to human resources and funding to cope with the anticipated traffic growth.

1A.3 The Meeting was informed of the current implementation status of the States' commitments in the field of Air Navigation Services for the APAC Region. Improvements were noted but much more could be achieved.

1A.4 The Secretariat informed the Meeting about the upcoming Inter-Regional Workshop on Enhanced Civil-Military Cooperation in ATM and Flexible Use of Airspace scheduled for 19-23 January 2026 in the APAC Regional Office. A survey was launched to better understand the current situation in the APAC region and expectations from States.

1A.5 A new commitment on Efficient Air Traffic Control (ATC) Separation Minima was added in the Delhi Declaration compared to the Beijing Declaration. Following the AN-Conf/14 Recommendation 3.1/1: Project 30/10 – Optimized implementation of longitudinal separation minima, ATM/SG proposed to establish the APAC Project 30/10 Task Force.

1A.6 Regarding the ATM Contingency planning commitment, only 9 States were reported with robust implementation. The necessity to update the Asia/Pacific Region ATM Contingency Plan was emphasised. Some regional activities were conducted while the coordination with ICAO HQ was in progress towards the development of a comprehensive global contingency framework. Such framework would form the foundation to update the regional plan.

1A.7 States were invited to continue their efforts on complying with the Delhi Declaration Commitments in a timely manner. ICAO encouraged States to submit to the implementation status the Regional Office at their best ability for effective and accurate compliance monitoring.

— — — — —

Agenda Item 1B: Follow-up on the outcome of APANPIRG/35 Meeting

1B.1 Review of the action taken by the ANC/Council on the Report of APANPIRG/35

Air Navigation Commission review of APANPIRG/35 and RASG-APAC/14 Reports (WP/03)

1B.1 The Secretariat presented the actions taken by the Air Navigation Commission (ANC) on the report of APANPIRG/35 and RASG-APAC/14 meetings. The Meeting was also informed that the ANC had agreed on the consolidated annual report on the PIRGs and RASGs for 2024-2025, which included an overview of the APANPIRG/35 and RASG-APAC/14 outcomes.

1B.2 The Commission congratulated APANPIRG and RASG-APAC on their achievements and progress during the last cycle. The ANC acknowledged the key achievements and challenges, encouraged joint efforts by States and the regional office to address the identified challenges, and expressed appreciation for the region's collaborative efforts and the support provided by the ICAO APAC Regional Office.

1B.3 Regarding the Conclusion APANPIRG/35/2 Regional guidance for design and operations of altiports and Decision APANPIRG/35/6 Information Management Panel considers the adoption of SWIM discovery service (SDS) as a global standard for globally interoperable service discovery. which require action by Headquarters, the meeting noted that the Commission agreed to refer the material from the region to the Aerodrome Design and Operations Panel (ADOP) and the Information Management Panel (IMP) for information, considering that job cards already exist for both topics. It was emphasized that referring these materials to the panels for information would enable them to assess how the content could support ongoing work, while ensuring consistency across each panel's work programme.

1B.4 The Meeting noted the pertinent items of the Consolidated Report to Council on PIRGs and RASGs for 2024-2025, including the addition of a global challenge related to the ineffective safety reporting due to inadequate information sharing, and weaknesses in accurate and complete data.

1B.5 Regarding flight and flow – information for a collaborative environment (FF-ICE), the Commission recognized the need to closely monitor the progress of FF-ICE implementation across various regions, including those concerning system-wide information management (SWIM) as a prerequisite to FF-ICE. The Commission expressed concerns over disparate experiences reported across different regions, and the diverse ways of approaching the implementation. The Commission noted concerns regarding the transition between FPL2012 and FF-ICE, particularly mixed-mode operations, flight plan translations, and early implementation of FF-ICE in some regions and the impact on adjacent States. The Commission noted that these issues were being addressed by the relevant expert groups, and the planned transition date was to minimize the period of mixed mode. It was considered important that FF-ICE implementation be addressed as a cross-cutting matter, including planned investment in ATM systems.

1B.6 The Meeting noted that the Commission requested the Secretariat to explore ways to promote interregional understanding and cooperation, with a view towards harmonized and coordinated implementation among States and ICAO Regions. This includes facilitating experience-sharing among States and Regions, enabling those facing difficulties to benefit from others' experiences, to avoid common pitfalls and accelerate progress. The Commission agreed to recommend that the Council urge the planning and implementation groups to expedite their development of regional transition plans to FF-ICE and report on the progress achieved and identified challenges that may affect the ability to meet the planned date of 2034 for the transition from ICAO FPL 2012 to FF-ICE.

1B.7 The Commission was of the view that a more in-depth review of these previously reported challenges was necessary to better facilitate a review of the actions to better address the issues and improve tracking of the progress towards the resolution of these issues. This review should identify the underlying root causes and should be aligned with the 2026-2028 ICAO Business Plan and be prioritized, as necessary. The Commission considered that it was important to bring broader perspectives and solutions on these identified global issues, so that they could be better managed by ICAO, regional bodies and States.

1B.8 The Secretariat emphasized the importance of providing the root causes of regionally identified challenges in the next reporting cycle to assist in determining the best course of action to be taken by the ANC and Council.

1B.9 The Meeting noted that a new dashboard, which allows for the monitoring of the reported global challenges, level of participation in PIRGs and RASGs meetings and reflected the progress of common initiatives, was established on the ICAO Integrated Safety Trend Analysis and Reporting System (iSTARS).

1B.10 The Meeting reviewed the actions taken by the ANC on the Report of APANPIRG/35 and RASG-APAC/14 and provided feedback to the table of global challenges as reflected in **Appendix A** to the Report on Agenda Item 1B.

1B.11 In response to the Republic of Korea question regarding the global harmonization of the guidance for space object launch and re-entry coordination, the Secretariat informed that the work was in progress based on APAC and NACC regional guidance materials. In addition, the Meeting was also informed that the workshop or seminar on this subject would be planned in 2026.

1B.2 Review status of implementation of APANPIRG/35 Conclusions and Decisions

Status of Implementation of APANPIRG/35 Conclusions and Decisions (WP/04)

1B.12 The Meeting reviewed the actions taken by the Secretariat and the progress made on the APANPIRG/35 Conclusions and Decisions.

1B.13 The Meeting noted that actions on 11 Conclusions and 2 Decisions were completed.

1B.14 The updated status on implementation of APANPIRG/35 Conclusions and Decisions was provided in **Appendix B** to the Report on Agenda Item 1B.

Agenda Item 1C: Update on 60th APAC DGCA Conference Action Items on Air Navigation

60th APAC DGCA Conference Action Items on Air Navigation (WP/05)

1C.1 The 60th Conference of Directors General of Civil Aviation (DGCA/60), Asia and Pacific Regions, hosted by Japan Civil Aviation Bureau was held in Sendai, Japan from 28 July to 1 August 2025 with the theme “*The Sustainable Skies of the Asia-Pacific Region: Towards Increased Economic Prosperity and Social Well-being by Air Transport of People and Goods in the Region*”.

1C.2 The Conference formulated 60 Action Items in total, in which eight (8) of them were formulated under Agenda Item 4 - Air Navigation. In addition, five (5) Action Items formulated under other Agenda Items were considered relevant/impacting various aspects of Air Navigation. Action Items that were related to specific APANPIRG Sub-groups, i.e. AOP/SG, ATM/SG, CNS/SG, MET/SG and RASMAG would be discussed in respective Sub-group meetings to raise awareness and encourage States/Administrations to take action on.

1C.3 The Secretariat informed the Meeting that ICAO APAC Regional Office had issued State Letter on 5 August 2025, inviting States/Administrations to provide status of implementation to the Action Items endorsed by DGCA/60 before 31 August 2026.

1C.4 The Meeting noted that the DGCA/61 would be hosted by Malaysia in 2026 with the Theme Topic adopted by the 60th APAC DGCA Conference as “*Smart Skies: Emerging Technologies for Safe, Secure, Sustainable and Efficient Aviation*”.

1C.5 Japan supported the WP/05 and congratulated all States/Administration who participated in DGCA/60.

1C.6 Malaysia invited States/Administrations to participate in DGCA/61 to be held in Malaysia in 2026.

— — — — —

Agenda Item 1D: Aviation Safety and RASG–APAC activities

Progress Update of the RASG-APAC/14 Decisions and Conclusions (IP/02)

1D.1 IP/02 provided the updates on the Fourteenth Meeting of the Regional Aviation Safety Group – Asia and Pacific Regions (RASG-APAC). RASG-APAC/14 was held in Bangkok, Thailand on 28-29 December 2024. RASG-APAC/14 adopted ten (10) Decisions. The Report of the RASG-APAC/14 can be accessed through <https://www.icao.int/APAC/meetingdocs?fid=8816>.

— — — — —

Agenda Item 2: Global and Inter Regional Activities

• Update on ICAO Assembly 42 on Air Navigation Matters

Outcome of the 42nd ICAO Assembly (PPT/01)

2.1 The Meeting was presented with the outcomes of the 42nd Session of the ICAO Assembly (A42), held in Montréal, Canada, 23 September to 3 October 2025.

2.2 The Meeting was informed of the endorsement of the 2026-2028 edition of the Global Aviation Safety Plan (GASP) and the eighth edition of the Global Air Navigation Plan (GANP) by the Assembly, as the global strategic directions for safety and the evolution of the air navigation system, respectively. It noted the need for ICAO provide the necessary support to Member States to develop and implement national aviation safety plans (NASP), in line with the latest edition of the GASP. The Meeting noted that the Assembly agreed with the proposal to extend the duration of the GANP update cycle to six years and focus on supporting States in implementing the GANP and developing national air navigation plans (NANP).

2.3 The Meeting was briefed on discussion related to raising the age limit for pilots and noted that the Assembly committed to continue actively studying the effects of advancing age on flight safety and agreed that any decision to raise the pilot age limit to 67 years old should be based on a thorough analysis of relevant data to be collected, and considerations of safety only.

2.4 The Meeting took note of the discussions around air traffic management (ATM), including: the need for a global and comprehensive cross-regional airspace optimization strategy over the high seas to enhance safety, capacity and efficiency; the need for a more dynamic, a cost-effective and adaptable approach to ATM modernization and the prospects of service-oriented architecture (SOA) accelerating innovation in ATM service provision; the need for a harmonized and consistent global implementation of the flight and flow – information for a collaborative environment (FF-ICE) services; data link connectivity issues affecting the reliability of the 23 NM lateral separation Standard; and the feasibility study of establishing an ICAO air navigation efficiency programme. The Meeting was informed that, as an outcome of these discussions, the Assembly encouraged States and air navigation services providers (ANSPs) to engage in cross-regional collaboration and active data sharing. The Meeting took note of the Assembly's outcome, encouraging the establishment of joint cross-regional task forces under the planning and implementation regional groups (PIRGs) framework to expedite and facilitate the implementation of airspace optimization projects such as free route airspace (FRA), direct routing and Project 30/10. The Meeting also noted that, while acknowledging the concerns raised and challenges associated with the potential establishment of a global audit programme of air navigation efficiency, the Assembly reiterated the need for a programme to support States, upon request, in assessing the efficiency and performance of their air navigation systems.

2.5 The Meeting was informed of discussions on the safe integration of space transport operations (STO) in airspace and took note of the updating of the Memorandum of Understanding between the United Nations Office of Outer Space Affairs (UN OOSA) and ICAO to reflect new areas of joint cooperation, particularly in coordinating on the airspace integration of space operations, and noted initiatives taken by UN OOSA. On the topic of the challenges that space debris presents to aviation, the Meeting took note of the call for Member States to share their experiences and best practices related to space debris re-entry.

2.6 The Meeting took note of the discussions around the topic of aerodromes, including: the need for total airport management (TAM); provisions for quality management of sustainable aviation fuel (SAF); enhanced oversight, guidance and technical support in the aerodrome emergency planning domain; standardized technical specification and guidance for avian radars at aerodromes; the

implementation of new obstacle limitation surface (OLS) provisions; the disruptions and damage caused by natural disasters to aeronautical infrastructure; and the challenges related to aerodrome certification. The Meeting noted that there was no agreement during the Assembly on the development of Standards and Recommended Practices (SARPs) related to quality management of SAF or those related to the resilience of aeronautical infrastructure, but rather that these issue be referred to relevant expert groups for further consideration.

2.7 With regards to the topics of meteorology and system-wide information management (SWIM), the Meeting was informed of discussions on the significant challenges for aviation caused by the increasing occurrence of hazardous meteorological events (HMEs) and the global need for the mitigation of safety risks posed by the HMEs. The Meeting took note of the challenges noted in the Assembly related to SWIM implementation, and the need for ICAO to develop a strategy to support the implementation of SWIM at regional and national levels while facilitating a harmonized approach to implementing SWIM across all ICAO regions.

2.8 Concerning the topics on communications, navigation, and surveillance (CNS), the Assembly recognized that several agenda items for the upcoming International Telecommunication Union World Radiocommunication Conference in 2027 (ITU WRC-27) have implications for aviation and might degrade aircraft safety. States were urged to support the ICAO frequency spectrum strategy, and actively engage with their national radio regulatory authorities, participate in WRC-27 preparatory activities within the ITU Radiocommunication Sector (ITU-R) as well as regional WRC preparatory activities, and the WRC in 2027. Considering the discussion, Assembly Resolution A41-7 was revised.

2.9 A proposal was made for the need for provisions and guidance material to harmonize building restrictions in areas surrounding CNS facilities and ensure a balance between land use in the vicinity of CNS facilities, aviation safety, economic growth, and environmental protection. Noting that the requested actions are not on the Organization's work programme, it was agreed that the matter be referred to the Council for further consideration, subject to re-prioritization of activities funded through the 2026-2028 Budget and extra budgetary contributions.

2.10 The vulnerabilities of ADS-B to cyberattacks, interference, and unauthorized disclosure were highlighted. The need for a comprehensive security strategy combining multi-sensor surveillance, integrity controls, AI-based anomaly detection, redundancy, privacy frameworks and training was proposed. The matter was referred to relevant expert groups for further consideration and States were urged to support harmonized solutions that safeguard ADS-B information while maintaining its operational benefits.

2.11 The need for provisions and guidance material to harmonize building restrictions in areas surrounding CNS facilities, and ensure a balance between land use in the vicinity of CNS facilities, aviation safety, economic growth and environmental protection was addressed. Noting that the requested actions are not on the Organization's work programme, it was agreed that the matter be referred to the Council for further consideration, subject to re-prioritization of activities funded through the 2026-2028 Budget and extra budgetary contributions.

2.12 The Meeting noted discussions on global navigation satellite system (GNSS) radio frequency interference (RFI) and its significant impact on aviation safety, security, and efficiency. With the endorsement of amendments to relevant Assembly resolutions on this subject, it was noted that the Assembly requested States' active engagement to ensure that resilient CNS capabilities remain available to maintain aviation safety.

2.13 With regards to the implementation and evolution of the ICAO Continuous Monitoring Approach (CMA) audit programmes, the Meeting noted the discussions at A42 which concluded that

ICAO's safety oversight and aviation security audit programmes should be further enhanced to better suit the needs of all Member States.

2.14 The Meeting was briefed on the discussions around the issue of conflict zones and took note of the adoption of a Resolution on Addressing risks to civil aviation arising from conflict zones, which, inter alia, calls for the development of a dedicated ICAO work programme on conflict zones to help States and operators mitigate risks and better manage airspace closure and reopening.

2.15 The Meeting was also briefed on other A42 outcomes, including those related to challenges in search and rescue; remotely piloted aircraft systems (RPAS), unmanned aircraft systems (UAS) and advanced air mobility (AAM), and the expedited development and implementation of measures to facilitate legally compliant and safe UAS operations over the high seas; and the revision of the resolution on Halon replacement, urging Member States to continue the development of alternative solutions for aircraft fire extinguishers, while considering the need for a revised cut-off date on the use of Halon.

2.16 The Meeting took note of other issues of interest discussed during the Assembly, including: accident investigation; fatigue management; regional cooperation mechanisms; innovation in aviation; crisis management; and SARPs efficiency.

Global Development related to Air Navigation (PPT/02)

2.17 The Meeting was informed of the main outcome of the 14th Air Navigation Conference (AN-Conf/14) held in Montreal, Canada, from 26 August to 6 September 2024, in particular, the actions in the Recommendations addressed specifically to PIRGs and RASGs. The Meeting considered the outcome of AN-Conf/14 under the relevant agenda item and took necessary actions.

2.18 The Meeting received an overview of the ICAO provisions that became applicable in 2024 and those in the pipeline for 2025 to 2030. The Meeting requested that the APANPIRG subsidiary bodies and States take necessary measures to implement the applicable and upcoming ICAO provisions and report challenges faced to the ICAO Headquarters.

2.19 The Meeting was apprised of the latest developments concerning crisis and contingency management, air traffic flow management (ATFM), FF-ICE, Project 30/10, and GNSS RFI. The Meeting agreed to discuss the necessary measures for implementing Project 30/10, ATFM, SWIM, and FF-ICE under the relevant agenda items and to request the sub-groups to report any perceived challenges that may delay implementation. The Meeting agreed to develop and implement the APAC Regional ATM Contingency Management Framework, in line with the global initiative, and encouraged States to participate in the ICAO APAC/EUR Civil-Military Cooperation Workshop, to be held in Bangkok, Thailand, from 19 to 23 January 2026.

Enhancing GNSS Resilience: Operational and Technical Collaboration against RFI (WP/06)

2.20 The paper introduced initiatives being taken by Japan to address GNSS RFI, including the RFI detection system and a reporting mechanism, a prototype GNSS jamming/spoofing detection tool, information sharing through NOTAM and the implementation of a minimum operational network as a backup. Japan shared that the MON (minimum operation network) using conventional navaids is one of the important methods to mitigate GNSS RFI. GNSS RFI is expected to continue increasing in the APAC region. It was suggested that it is important for States to implement mechanisms for the detection and mitigation of GNSS RFI and to enhance cooperation and coordination with other States in order to maintain and improve a safe and sustainable aviation network in the APAC region.

2.21 It was informed that the First Meeting of the Procedures for GNSS and Data Link Disruption Ad Hoc Group was held on 1st October 2025, and the ToR was finalised. This Ad Hoc Group ToR included discussion of operational GNSS RFI mitigation measures. In addition, technical considerations addressed by the CNS SG were kept outside the scope of this ToR.

2.22 APAC States/Administrations were encouraged to support the implementation of GNSS RFI detection and mitigation systems and to strengthen cooperation with other regions. It was also requested to lead the expedited discussion of GNSS RFI technical aspects within the CNS SG framework, in parallel with ongoing operational deliberations in the Procedures for GNSS and Data Link Disruption Ad Hoc Group meeting and to foster close coordination between these bodies. States/Administrations were also encouraged to actively participate in both the operational and technical discussions, including sharing GNSS RFI experiences and mitigation best practices with other States.

Proposed Focus Area to Mitigate GNSS Radio Frequency Interference for the Ais Pacific Region (WP/20)

2.23 Singapore recalled pertinent proposals and recommendations from the 42nd ICAO Assembly (A42) related to GNSS RFI, and the ICAO Asia Pacific Radio Navigation Symposium. It highlighted the following areas to focus regional efforts in mitigating GNSS RFI for the CNS SG and SEI WG to explore further:

- a) Harmonised notification of GNSS RFI events to operators – e.g., through development of common reporting procedures and templates;
- b) Notification of GNSS RFI events encountered by flight crew to ATC – e.g., through collaborating with airline associations and organisations to establish reporting workflows on GNSS degradation or suspected interference;
- c) Optimised navigation and communication network planning and coverage – e.g., through a regional planning framework for States and ANSPs that considers the continuing need for ground-based navigation aids, especially in the critical areas (such as terminal airspace), for greater resilience against GNSS RFI;
- d) Clear regional guidance on GNSS RFI – e.g., through new GNSS RFI-related elements in the APAC Seamless ANS Plan across both operation and technology functions; and
- e) Capable and ready operational personnel – e.g., through the Cooperative Development of Operational Safety and Continuing Airworthiness Programme – Southeast Asia (COSCAP-SEA) to determine regional training needs and solutions.

2.24 It was also requested that the coordination group led by the CNS SG and SEI WG, in consultation with the relevant contributory bodies under PIRG and RASG, coordinate action to collectively tackle GNSS RFI risks in this region and present joint updates to APANPIRG and RASG-APAC in 2026.

2.25 ICAO Secretariat informed that for points (a) and (b), necessary action is being taken by the Procedures for GNSS and Data Link Disruption Ad Hoc Group. For point (c), the Meeting acknowledged the significance of optimized navigation and communication network planning and coverage and encouraged States/Administrations to take the necessary action. It was noted that APAC Seamless ANS Plan v4.0 incorporates necessary modules/ASBUs related to mitigating the GNSS RFI issue.

2.26 COSCAP-SEA Chief Technical Advisor (CTA)/Program Coordinator (PC) could not join the meeting but shared feedback on the proposal shared in point (e). The Meeting noted that the proposal on capable and ready operational personnel may resonate with Strategic Priority 3 of

COSCAP- SEA, which focuses on anticipating and addressing emerging risks. It was noted that while GNSS RFI has not been incorporated into the current annual work plan, COSCAP-SEA would explore opportunities to advance this agenda, subject to endorsement by the steering committee.

2.27 CANSO recognised the importance of maintaining a minimum operational network of conventional NAV AIDS in supporting the mitigation of GNSS RFI and introduced the Guidelines for Implementing a Minimum Operational Network (MON) published by CANSO. It encouraged the CNS SG and SEI WG to collaborate on exploring the possibility of developing a regional, minimal operational network for the APAC region.

2.28 The Republic of Korea supplemented the need for continuing safety by taking necessary action to mitigate GNSS RFI risks and reiterated the need for training of pilots and other aviation stakeholders to manage this risk. It was also suggested that, to enhance regional capacity in managing and responding to GNSS RFI risks, a contingency procedure could be developed and incorporated into the regional contingency plan. Furthermore, the ROK encouraged Member States to actively participate in both operational and technical discussions, including the sharing of their experiences, such as GNSS RFI events and best practices for mitigation measures, with other Member States.

2.29 Hong Kong China shared the need for mitigating strategies for airborne equipment and suggested that coordination with aircraft avionics suppliers and aircraft manufacturers should be conducted while conducting future coordination between CNS SG and SEI WG.

2.30 The Meeting agreed that there is no need for a coordination group. The SRWG and Procedures for GNSS and Data Link Disruption Ad Hoc Group meetings are addressing associated technical and operational matters, respectively. An analysis of the need for a coordination group will be conducted through close collaboration between the CNS SG and the SEI WG.

2.31 The Chairperson highlighted the urgent and growing challenge of GNSS RFI in the Asia/Pacific region, as discussed in both WP/06 and WP/20. Recognising the significant operational and safety risks posed by GNSS jamming and spoofing, the Chairperson encouraged States/Administrations to actively share their current practices, experiences, and mitigation measures, including detection, reporting, and operational responses, through established regional mechanisms. By promoting collective learning and open exchange of information, the Chairperson emphasized that the region could strengthen its resilience and ensure a coordinated, robust response to GNSS interference, safeguarding the safety and efficiency of civil aviation across Asia and the Pacific.

Collaboration between CNS SG and EI WG (WP/21)

2.32 The Meeting was informed about the discussion made during the Twelfth PIRG & RASG Regional Coordination Meeting on 27 November 2024, at the ICAO APAC Office, focused on coordinating efforts between APANPIRG and RASG-APAC. One of the key topics was data sharing to address GNSS RFI risks. It was noted that APANPIRG had worked to mitigate GNSS RFI, with recent efforts by the Spectrum Review Working Group (SRWG) and CNS SG focusing on understanding and collecting data on the issue. Despite establishing an Ad Hoc Group to address GNSS and data link disruptions and urging states to report occurrences, progress had been hindered by a lack of detailed incident reports from APAC States, complicating efforts to identify GNSS RFI as the root cause of disruptions.

2.33 The Meeting was informed that to enhance operational safety against CFIT and MAC risks from spoofing and jamming, APRAST's SEI WG proposed to collaborate closely with the CNS SG. The APRAST's CFIT Task Force would identify geographic areas of concern, analyse contributing factors related to operational safety in the APAC region, and prioritize threats to develop targeted safety

enhancement initiatives and advisories. Additionally, the SEI WG aimed to understand OEM guidance and existing efforts on managing GNSS interference, while maintaining close coordination with CNS SG and other safety teams globally.

2.34 ICAO Secretariat supported the need for collaboration and agreed to share the proposed collaboration provided in the paper in the SRWG/10 and CNS SG/30 planned in 2026. The progress on the proposed collaboration and its associated outcomes would be presented at the APANPIRG/37 in 2026.

Trajectory Based Operations (TBO): Exploring the European Experience and Potential Synergies for Asia Pacific (WP/07)

2.35 APANPIRG/36 received an update on Europe's approach to TBO, presented as a central element of ATM modernization under the SESAR programme and the Single European Sky (SES) frameworks. The strategy, which aimed to achieve a Digital European Sky by 2045, focuses on digital innovation, environmental performance and operational efficiency, supported by several key technological pillars.

2.36 The Meeting noted the extensive research and development undertaken through SESAR since 2008, which had already delivered measurable gains in sector capacity and controller workload. EUROCONTROL, acting as Network Manager, deployed initial FF-ICE/R1 services in 2024, making Europe the first region worldwide to implement this capability. A dedicated TBO roadmap had been incorporated into the 2025 European ATM Master Plan, outlining a phased implementation and introducing three broad stakeholder groupings – Network TBO, ATC TBO and Regional TBO – to better organize research and deployment activities.

2.37 It was highlighted that TBO was highly relevant for the APAC region, given the rapid growth in air traffic. TBO offered opportunities to optimize capacity, enhance safety, reduce delays and lower fuel consumption through more precise flight planning, while advanced data-sharing frameworks would enable more effective management of decentralized information flows in line with ICAO's global plans.

2.38 The European Union reiterated its willingness to support the region, including through technical and regulatory cooperation and by sharing insights from the European TBO roadmap. It also encouraged bilateral and multilateral exchanges between APAC and European partners, including through technical workshops under APANPIRG contributory bodies.

2.39 ICAO expressed its appreciation for the continued support from EASA and the European Union, noting the value of these contributions as the region advances toward TBO implementation. ICAO looked forward to further cooperation and to the exchange of experience to support a harmonized and effective regional rollout of TBO.

2.40 Singapore expressed its gratitude and welcomed EASA for presenting the working paper, and looked forward to potential opportunities for knowledge exchange.

2.41 The Chairperson thanked EASA for sharing the European experience and approach to TBO, and encouraged the APAC region to draw on European best practices and expertise in progressing its own TBO activities.

PSIDS Regional Activities 2025-26 (WP/17)

2.42 The Secretariat informed the Meeting of the work of the Pacific Small Island Developing States (PSIDS) Liaison Office, and the support provided by partner States, acknowledging

that the transition of PSIDS Liaison Officers maintained the focus for PSIDS activities. The Meeting was informed of proposed technical assistance and meetings targeting the PSIDS in 2026, and the Meeting was also referred to **Appendix A** to the Report on Agenda Item 2 for illustration of the PSIDS Strategic Aviation Network website.

2.43 The Meeting was informed on the progress of the Implementation Support Roadmap (ISR), and the Secretariat expressed that the roadmap was critical to articulate activities and priorities for assistance by ICAO and donors to deliver on the 2019 PSIDS Study recommendations. The Meeting was informed of work in progress by the PSIDS Liaison Office to develop a platform for assistance donors for the objective of coordinating and collaborating on assistance activities targeted for PSIDS, addressing the 2019 PSIDS Study recommendation AD/Rec/1. The Meeting was informed that the platform was envisaged to be developed by Q1 2026, and through the following Conclusion adopted by the Meeting urged assistance donors to utilize the platform:

Conclusion APANPIRG/36-1: Coordination of Regulatory and Service Provider Personnel Support for ICAO PSIDS-Focused Activities	
What: That, noting Pacific Small Island Developing States' (PSIDS') continue to receive regulatory and technical training, on-the-job training, and appropriately qualified experts to support ICAO-coordinated activities and projects, States and Organizations are urged to provide/update support and activities on a centralized website hosted by ICAO to collate, coordinate and collaborate on assistance being provided to PSIDS by partner States or Organizations.	Expected impact: <input checked="" type="checkbox"/> Political / Global <input checked="" type="checkbox"/> Inter-regional <input checked="" type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical
Why: <ul style="list-style-type: none"> To provide visibility for planning and allocation of assistance delivery by partner States and Organizations in relation to PSIDS Study/Roadmap recommendations; and Enable effective monitoring of progress against recommendations; and Avoid duplication, deconflict of assistance and support and identify gaps in assistance for PSIDS. 	Follow-up: <input checked="" type="checkbox"/> Required from States
When: 26-Nov-2025	Status: Adopted by PIRG
Who: <input type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input checked="" type="checkbox"/> ICAO HQ <input type="checkbox"/> Other:	

2.44 The Meeting was reminded of the action from WP23 of APANPIRG/35 for ongoing financial support to enable delivery of assistance activities, including the SAR Project Phases 2 & 3 which remain outstanding.

2.45 Samoa and Fiji expressed their appreciation of ongoing support for PSIDS, and importance of coordinated assistance for the region.

2.46 The Chairperson acknowledged the ongoing commitment of the PSIDS Liaison Office and the generous support of partner States, which remain vital to strengthening aviation safety and capacity in the Pacific. The Chairperson welcomed the development of an Implementation Support Roadmap and the upcoming ICAO SharePoint platform, noting these initiatives would improve

coordination, enhance transparency, and ensure that assistance was well-targeted to the evolving needs of Pacific Small Island Developing States. The Chairperson encouraged all partners to continue their financial and in-kind contributions and to actively engage with the new centralized platform to maximise the impact of regional support efforts.

Updates on APANPIRG/35 & RASG-APAC/14 Midyear Review and Thirteenth PIRG & RASG Regional Coordination Meeting (IP/03)

2.47 The Meeting was informed of the outcomes of the APANPIRG/35 & RASG-APAC/14 Midyear Review and Thirteenth PIRG & RASG Regional Coordination Meeting held on 28 August 2025 at in Bangkok, Thailand in hybrid format.

2.48 The coordination meeting was attended by the APANPIRG Vice-Chairpersons, RASG-APAC Chairperson and Vice Chairperson, Chairpersons/Co-Chairpersons of APANPIRG's and RASG-APAC Contributory Bodies and the Secretariat.

Shaping the Future of Airspace – Airspace Asia Pacific 2025 (IP/05)

2.49 The paper highlighted the significance and features of the CANSO Airspace Asia Pacific 2025, which would be held in Hong Kong, China, from 9 to 11 December 2025. This brand new event, organized by CANSO, aimed to engage a regional audience with objectives similar to those of the annual Airspace World event in Europe. It served as a premier platform for discussing future technologies in air traffic management, unmanned traffic management, digitalization, and airspace modernization.

2.50 Leveraging the opportunity of hosting the event, the CANSO APAC Conference 2025 would be held back-to-back on 8 December 2025 at the same venue. The theme for the CANSO APAC Conference 2025 focused on the integration of meteorology and aviation, addressing the anticipated impacts of climate change-related weather unpredictability on aviation. The conference was relevant to meteorological service providers and the aviation community in the region. APAC States and Administrations were encouraged to support and promote participation in the event, sharing information with interested organizations, companies, and academic institutions to enhance attendance.

— — — — —

Agenda Item 3: Performance Framework for Regional Air Navigation Planning and Implementation

3.0 Regional and National Performance Framework

Update of APAC Air Navigation Plan Volume III (WP/08)

3.0.1 The Secretariat presented a roadmap for updating the APAC Air Navigation Plan (ANP) Volume III. The APAC ANP Volume III was intended to incorporate regional planning objectives, priorities and targets, implementation monitoring and reporting, and other regional guidance materials. The structure of the ANP Volume III consists of:

- a) Part 0 – Introduction;
- b) Part I – General Planning Aspects (GEN); and
- c) Part II – Air Navigation System Implementation.

3.0.2 The management and amendment of the ANP Volume III would be under the responsibility of the PIRGs. Nevertheless, the amendment of Part 0 and Part I of APAC ANP Volume III should go through an inter-regional coordination mechanism, and Part II would require approval by regional agreement (i.e. APANPIRG).

3.0.3 The APAC ANP Volume III Part II was developed to include the regional priorities elements from the *Asia/Pacific Seamless ANS Plan*. Since 2017, *Asia/Pacific Seamless ANS Plan* was regularly updated to reflect the updates in Global Air Navigation Plan (GANP). The most recent *Asia/Pacific Seamless ANS Plan Version 4.0* was endorsed by APANPIRG/35, in 2024.

3.0.4 The Secretariat clarified that most sections of the *Asia/Pacific Seamless ANS Plan* and APAC ANP Volume III complemented each other. It was noted that updating regional strategic documents necessitated substantial efforts and resources, which needed to be minimized to ensure the efficient utilization of limited resources. Considering these factors, the updating of APAC ANP Volume III would eventually lead to the discontinuation of the *Asia/Pacific Seamless ANS Plan*.

3.0.5 The Meeting noted that ICAO APAC Office had undertaken actions to update the APAC ANP Volume III to incorporate the most recent regional priorities. Acknowledging that the GANP 8th Edition would be released in due course and that regional priorities would need to be reviewed and revised accordingly, the Secretariat anticipated that the update of the APAC ANP Volume III should be completed in 2026.

3.0.6 Singapore noted the timely paper and call to action that followed up on the outcomes of the 42nd ICAO Assembly, as well as the efforts made in coordinating with ICAO Headquarters to update Part 0 and Part 1 of ANP Volume III. Singapore also recalled that the 42nd Assembly had discussed the “minimum implementation path” for the ANS systems of the GANP and proposed for regional priorities to be shared with ICAO Headquarters to support the global harmonization effort in due course.

3.0.7 The Meeting noted that the *APAC Seamless ANS Plan* had been an important planning document for the APAC Region, supporting States in focusing on key areas for the implementation of regional ANS priorities and in enhancing airspace capacity and efficiency. The Meeting further noted that promoting the *APAC Seamless ANS Plan* to APAC ANP Volume III would ensure harmonized implementation of the ASBU elements of the GANP together with the tailored regional priorities of the APAC Region.

3.0.8 APANPIRG/36 reviewed the action plan for updating the APAC ANP Volume III and agreed to the following Conclusion:

Conclusion APANPIRG/36-2: Action plan for updating of APAC ANP Volume III			
What: That, aligned with the 8th Edition of GANP — subject to its availability by early 2026 for reference, given its significant updates to the ASBU framework — the following action plan is adopted for the revision of the APAC ANP Volume III:		Expected impact:	
a) ICAO Secretariat to incorporate editorial amendments to Part 0 and Part I, with an expected completion date in Q1 2026;		<input checked="" type="checkbox"/> Political / Global	
		<input type="checkbox"/> Inter-regional	
		<input type="checkbox"/> Economic	
		<input type="checkbox"/> Environmental	
		<input checked="" type="checkbox"/> Ops/Technical	
b) ICAO Secretariat, in consultation with APANPIRG Sub Groups 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 Sub Groups 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.			
Why: To update the APAC ANP Volume III, including ASBU elements expected priority for implementation within the APAC Region, based on the 8th Edition of GANP.		Follow-up:	<input checked="" type="checkbox"/> Required from States
When:	26-Nov-25	Status:	Adopted by PIRG
Who:		<input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other:	

3.0.9 The Meeting was informed that the development and subsequent updates of the APAC ANP Volume III Part II would be included in the work programme of the respective APANPIRG contributory bodies, with future revisions of APAC ANP Volume III aligned with the GANP update cycle.

3.0.10 Additionally, the Meeting was also informed that the APAC Seamless ANS reporting tool was being updated to reflect the changes in the *Asia/Pacific Seamless ANS Plan Version 4.0* and expected to be available by early 2026. The Meeting noted that following the update of the APAC ANP Volume III (expected in late 2026), the APAC Seamless ANS Reporting Tool would also be revised accordingly to enable APAC States/Administrations to report on the implementation status of the respective regional priorities.

— — — — —

Agenda Item 3: Performance Framework for Regional Air Navigation Planning and Implementation

3.1 AOP

Report on the Ninth Meeting of AOP Sub-group (WP/09)

History of the Meeting

3.1.1 The Ninth Meeting of the Aerodrome Operations and Planning Sub-Group (AOP/SG/9) was held in Bangkok, Thailand, from 30 June to 04 July 2025.

3.1.2 Based on the outcomes of discussions on various Agenda Items, the Meeting adopted 8 (Eight) Conclusions that were of a purely technical or operational nature. In addition, AOP/SG/9 formulated 2 (Two) Draft Conclusions for consideration by APANPIRG/36. The full report of AOP/SG/9 was available at the following URL: <https://www.icao.int/APAC/meetingdocs?fid=554>

Amendment of Asia/Pacific Air Navigation Plan (ANP) Volume I, Table AOP I-1 and ANP Volume II, Table AOP II-1

3.1.3 APANPIRG/36 noted that **355** out of **384** aerodromes used for international operations in Asia and Pacific Regions had been listed in Asia/Pacific Region ANP Volume I as of 25 June 2025 (286 in 2024).

3.1.4 APANPIRG/36 urged States to initiate and send proposals to the ICAO APAC Office for amendment to APAC ANP Volume I, Table AOP I-1 and ANP Volume II, Table AOP II-1, particularly by States/Administrations identified in **Appendix A** to the Report on Agenda Item 3.1.

Report on the Sixth Meeting of the Asia/Pacific Aerodrome Design and Operations Task Force (AP-ADO/TF/6)

Outcomes of the Workshop on Transposition of Annex 14 SARPs into National Aerodrome Standards

3.1.5 APANPIRG/36 noted that the Workshop on Transposition of Annex 14 SARPs into National Aerodrome Standards was conducted on 17 February 2025 in Langkawi, Malaysia in conjunction with the AP-ADO/TF/6 Meeting.

3.1.6 APANPIRG/36 also noted that AOP/SG/9 had adopted the following Conclusion formulated by AP-ADO/TF/6:

Conclusion AOP/SG/9 - 1 (Draft Conclusion AP-ADO/TF/6 – 1): Workshop on Transposition of Annex 14 SARPs into National Aerodrome Standards

That, key takeaways of the Workshop on Transposition of Annex 14, Volume I, SARPs into National Aerodrome Standards be circulated to Asia/Pacific States/Administrations for information and published on the APAC Website at eDocuments Webpage.

3.1.7 APANPIRG/36 noted that ICAO APAC Regional Office had circulated the State Letter Ref.: T 11/5.13.2 – AP118/25 (AGA) dated 16 September 2025 regarding the key takeaways of the Workshop, which was also available at APAC eDocuments Webpage under AGA Heading <https://www.icao.int/APAC/apac-electronic-documents#tabs-2>.

Clarification of Clause Interpretations in ICAO Annex 14 Volume I

3.1.8 APANPIRG/36 noted that the AP-ADO/TF/6 had discussed the “Form and Proportions of Numbers and Letters for Runway Designation Marking” (*ICAO Annex 14 Volume I*, Clause 5.2.2.6), which lacked clear guidance on gap dimensions for combinations of the number "1" with other numbers wider than 3.0 meters, as well as for combinations where the numbers are 3.0 meters or wider. AP-ADO/TF/6 had suggested ICAO provide visual guidance for both cases and standardise the gap dimension to 2.2 meters for the second case.

3.1.9 APANPIRG/36 further noted that AOP/SG/9 had adopted the following Conclusion formulated by AP-ADO/TF/6:

Conclusion AOP/SG/9 – 2 (Draft Conclusion AP-ADO/TF/6 – 2): Clarification of Clause Interpretations in ICAO Annex 14 Volume I

That, AP-ADO/TF/6 – WP/08 be forwarded to ICAO Air Navigation Bureau for its review of specification 5.2.2.6 (Figure 5 -3) and consideration of the recommendation as proposed in the WP/08.

Tolerance in Aerodrome Physical Characteristics and Addressing Inconsistencies in ICAO Annex 14 Volume I

3.1.10 APANPIRG/36 noted that the AP-ADO/TF/6 had discussed Malaysia’s proposal to address the acceptable tolerances in the visual aids of aerodromes (Markings, Runway and Taxiway Edge Lights and Wind Direction Indicator’s Circular Band), with the goal of enhancing operational efficiency without compromising safety or performance standards, taking references from *ICAO Annex 14, Volume I SARPs*, FAA and UK CAA Standards. APANPIRG/36 also noted that AOP/SG/9 had adopted the following Conclusion formulated by AP-ADO/TF/6:

Conclusion AOP/SG/9 – 3 (Draft Conclusion AP-ADO/TF/6 – 3): Tolerance on marking of wind direction indicator’s circular band, and runway and taxiway edge lights

That, AP-ADO/TF/6 – WP/09 be forwarded to ICAO Air Navigation Bureau for its review and consideration of the tolerance in the design and implementation of the marking of wind direction indicator’s circular band, and runway and taxiway edge lights.

Potential Misinterpretation on the Terms “Defined Runway and Taxiway Pavement Edges to the Near Side of Sign”

3.1.11 APANPIRG/36 noted that the AP-ADO/TF/6 had discussed the potential misinterpretation of the term "from the defined runway and taxiway pavement edges to the near side of sign" in *ICAO Annex 14 Volume I, Table 5-5*. The ambiguity in defining the reference point for sign placement had led to inconsistencies among airport designers, aerodrome operators, and regulatory bodies, potentially affecting safety and compliance. To address this, the AP-ADO/TF/6 had proposed ICAO to provide clearer guidance, including graphical illustrations, to ensure uniform understanding and compliance across airports. APANPIRG/36 further noted that AOP/SG/9 had adopted the following Conclusion formulated by AP-ADO/TF/6:

Conclusion AOP/SG/9 – 4 (Draft Conclusion AP-ADO/TF/6 – 4): Provision of Graphical Illustrations for the Placement of Signs in ICAO Design Manual (Doc 9157), Part 4 Visual Aids

That, AP-ADO/TF/6 – WP/10 be forwarded to ICAO Air Navigation Bureau for inclusion of the Graphical illustrations of the placement of the signs in ICAO Design Manual (Doc 9157), Part 4 Visual Aids.

Review Options of Standardizing the Approach Lighting Circuit Design against the Switch Over Time Requirements to Ensure the Operational Requirements are met with respect to Precision Approach CAT II/III Operations

3.1.12 APANPIRG/36 noted that the AP-ADO/TF/6 had discussed the existing switch over time requirements for the approach lighting system for precision approach CAT II/III as per *Annex 14, Volume I, Table 8-1*. The present concern of dividing the approach lighting system into two parts, as inner approach (first 300 m) and outer approach (from 300 – 900 m), while the interleaving circuits for the inner/outer approach areas combined control the entire section. Hence, separate switchover times for the inner and outer approach was not practically possible was fundamentally agreed by the Task Force Meeting.

3.1.13 APANPIRG/36 also noted that AOP/SG/9 had adopted the following Conclusion formulated by AP-ADO/TF/6:

Conclusion AOP/SG/9 – 5 (Draft Conclusion AP-ADO/TF/6 – 5): Review of Switch-over Time Requirements for Outer Part (from 300 – 900 m) of the CAT II/III Approach Lighting System

That, AP-ADO/TF/6 – WP/13 be forwarded to ICAO Air Navigation Bureau for review of switch-over time requirements for outer part (from 300 – 900 m) of the CAT II/III Approach Lighting System by Visual Aids Working Group.

3.1.14 APANPIRG/36 noted that ICAO APAC Regional Office had sent an IOM Ref.: T 11/5.13.2 – AP-AGA0050/25 dated 15 September 2025, along with the AP-ADO/TF/6 – **WP/08, WP/09, WP/10 & WP/13** to the Air Navigation Bureau for further deliberation at the ADOP Visual Aids Working Group.

Guidance Material on the Transposition of Annex 14 SARPs

3.1.15 APANPIRG/36 noted that the AOP/SG/9 had reviewed the ‘Draft Guidance on Transposition of ICAO Annex 14 SARPs into National Standards’ developed by the AP-ADO/TF. The guidance document was structured into 7 Chapters and 1 Appendix covering general information, proposals for new SARPs, industry engagement, adoption of SARPs, regulatory development, and notification procedures. It was developed for reference to APAC States, and they could adapt it with proper customization if they have yet to develop one for them.

3.1.16 APANPIRG/36 noted that AOP/SG/9 had adopted the following Conclusion formulated by AP-ADO/TF/6:

Conclusion AOP/SG/9 – 6 (Draft Conclusion AP-ADO/TF/6 – 6): Guidance on Transposition of Annex 14 SARPs into National Standards

That,

- a) the Guidance Material on Transposition of Annex 14 SARPs into National Standards (Appendix A2 to the Report of AOP/SG/9) be adopted and published on the ICAO APAC website; and*
- b) APAC States and industry be invited to provide feedback after its publication on ICAO APAC Website.*

3.1.17 APANPIRG/36 also noted that ICAO APAC Office had circulated the State Letter Ref.: T 11/5.13.2 – AP119/25 (AGA) dated 16 September 2025 regarding the ‘Guidance on Transposition of Annex 14 SARPs into National Standards’ which was also available at APAC eDocuments Webpage under AGA Heading <https://www.icao.int/APAC/apac-electronic-documents#tabs-2>.

3.1.18 APANPIRG/36 further noted that the AP-ADO/TF/6 had agreed to develop the regional guidance documents on the following areas:

- a) Measurable conspicuity standards for runway and taxiway markings to provide aerodrome operators and regulators with clear, objective criteria for evaluating marking effectiveness (Malaysia to lead the task with the support from India, Thailand, Vietnam and ACI);
- b) Assessment and mitigation of glare and glint from solar panels installed at or in the vicinity of the aerodrome (Malaysia to lead the task with the support from India, Philippines and Sri Lanka);
- c) Interrelationship between *ICAO Annex 10 Volume I, ICAO Annex 14 volume I and Aerodrome Design Manual (DOC. 9157) Part 6* for visual and non-visual aids installation on runway and taxiway strips and RESA (Nepal to lead the task with the support from Fiji, India and China); and
- d) Circumstances/situations where the phrase “as far as practicable and/or wherever practicable” would be needed for flexibility of the implementation of SARPs based on experiences and best practices of APAC States from different geographical regions (Nepal to lead the task with the support from Australia, Malaysia, Wellington International Airport (New Zealand) and Pakistan).

Report on the Seventh Meeting of the Asia/Pacific Aerodrome Assistance Working Group (AP-AA/WG/7)

3.1.19 APANPIRG/36 noted that AOP/SG/9 had reviewed the Report of the Seventh Meeting of the Asia/Pacific Aerodrome Assistance Working Group (AP-AA/WG/7, Bangkok, Thailand, from 27 to 30 May 2025). The full report of the Meeting had been posted on the ICAO APAC Office website and could be accessed at <https://www.icao.int/APAC/meetingdocs?fid=573>.

Runway Surface Condition Reporting – Adoption of Technology

3.1.20 APANPIRG/36 noted that AP-AA/WG/7 had discussed the regulatory challenges faced by New Zealand in adopting technology solutions to assist in the assessment of runway surface conditions as part of the GRF implementation.

3.1.21 Although technology solutions could provide an equal of better safety performance outcome in certain complex operational or environmental conditions, the definition of a “WET runway” currently, by inference, indicates that such runway condition assessments must be based upon “visual” observation which might not be able to be achieved practically or effectively in a timely manner for rain related events. Allowing States to consider technology solutions as an acceptable alternative means of compliance would assist in enhancing safety and providing greater opportunity for the adoption of GRF.

3.1.22 APANPIRG/36 adopted the following Conclusion formulated by AP-AA/WG/7 and endorsed by AOP/SG/9:

Conclusion APANPIRG/36/3: Runway Surface Condition Assessment – Adoption of Technology		
What:	Restricting assessment of runway surface conditions to visual means only, especially for DRY or WET conditions restricts the introduction of technology and automation to assist airport operators to meet the performance and safety outcomes desired. ICAO is requested to facilitate States to consider the use of technology and automation methods as an alternative acceptable means of compliance, to assist aerodrome operators in the assessment of runway surface conditions.	Expected impact: <input checked="" type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input checked="" type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical
Why:	Technology and automation can equally meet the performance and safety outcomes desired in assessing runway surface conditions for reporting in global reporting format	Follow-up: <input type="checkbox"/> Required from States
When:	26-Nov-25	Status: Adopted by PIRG
Who:	<input type="checkbox"/> Sub groups <input type="checkbox"/> APAC States <input type="checkbox"/> ICAO APAC RO <input checked="" type="checkbox"/> ICAO HQ <input type="checkbox"/> Other: XXXX	

3.1.23 APANPIRG/36 further noted that the use of technology and automation methods as an alternative acceptable means of compliance for the assessment of runway surface conditions could possibly be mentioned in ‘ICAO Circular 355 - Assessment, Measurement and Reporting of Runway Surface Conditions’.

Guideline for Runway Classification

3.1.24 APANPIRG/36 noted that the AOP/SG/9 had reviewed the guidelines developed by AP-AA/WG for classification of runways using *Annex 14, Volume I*, other relevant Annexes and manuals. While *Annex 14, Volume I* defined non-instrument and instrument runways, the definitions being vague and interpreted differently by States — some classifying runways based on installed equipment, others on actual operational use. This inconsistency might lead to varied applications of aerodrome standards, affecting runway design elements such as runway strip dimensions, Obstacle Limitation Surfaces (OLS), and visual aids. It might impact other Annexes, including *Annex 4 (Charts)*, *Annex 6 (Aircraft Operations)*, *Annex 10 (Aeronautical Telecommunications)* and *Annex 19 (Safety Management)*.

3.1.25 The standardised guidelines would promote global harmonisation, enhance safety, and ensure consistent application of *Annex 14 Volume I* provisions.

3.1.26 APANPIRG/36 noted that the AOP/SG/9 had adopted the following Conclusion formulated by AP-AA/WG/7:

Conclusion AOP/SG/9 – 8 (Draft Conclusion AP-AA/WG/7 – 2): Guideline for Runway Classification

*That, the Guideline for Runway Classification provided in **Appendix B** to the AOP/SG/9 Report be circulated to States/Administrations and published on the ICAO APAC eDocuments Webpage under AGA Heading.*

3.1.27 APANPIRG/36 also noted that ICAO APAC Office had circulated the State Letter Ref.: T 11/5.13.2 – AP120/25 (AGA) dated 16 September 2025 regarding the ‘Guideline for Runway Classification’, which was also available at APAC eDocuments Webpage under AGA Heading <https://www.icao.int/APAC/apac-electronic-documents#tabs-2>.

3.1.28 APANPIRG/36 further noted that the AP-AA/WG had agreed to develop the regional guidance on ‘Rescue & Fire Fighting Requirements for Small Airports (Aerodrome Category 1 and 2 for RFF)’, which was also included in the AP-AA/WG Task List.

Report on the Seventh Meeting of the Asia/Pacific Wildlife Hazard Management Working Group (AP-WHM/WG/7)

3.1.29 APANPIRG/36 noted that AOP/SG/9 reviewed the Report of the Seventh Meeting of the Asia/Pacific Wildlife Hazard Management Working Group (AP-WHM/WG/7) held in Pokhara, Nepal from 7 to 9 May 2025. The full report of AP-WHM/WG/7 provided on ICAO APAC Office website at: <https://www.icao.int/APAC/meetingdocs?fid=592>.

Outcomes of the ICAO Asia/Pacific Wildlife Hazard Management Workshop

3.1.30 APANPIRG/36 noted that ICAO Asia/Pacific Wildlife Hazard Management (WHM) Workshop was conducted on 5 – 6 May 2025 in Pokhara, Nepal.

3.1.31 APANPIRG/36 also noted that the AOP/SG/9 had reviewed the key takeaways of the workshop endorsed by AP-WHM/WG/7 and adopted the following Conclusion formulated by AP-WHM/WG/7:

Conclusion AOP/SG/9 – 9 (Draft Conclusion AP-WHM/WG/7 – 1): ICAO Asia/Pacific Wildlife Hazard Management Workshop

That, key takeaways of the ICAO Asia/Pacific Wildlife Hazard Management Workshop be circulated to Asia/Pacific States/Administrations for information and consideration and published on the ICAO APAC Website eDocuments Webpage.

3.1.32 APANPIRG/36 further noted that ICAO APAC Office had circulated the State Letter Ref.: T 11/5.13.2 – AP121/25 (AGA) dated 16 September 2025 regarding the key takeaways of the Workshop, which was also available at APAC eDocuments Webpage under AGA Heading <https://www.icao.int/APAC/apac-electronic-documents#tabs-2>.

Wildlife Strike – A Safety Concern

3.1.33 APANPIRG/36 noted that that India, Indonesia, Nepal and the Philippines had identified wildlife Strike as one of the National High-Risk Category of Occurrences (N-HRCs) in their respective National Aviation Safety Plan (NASP) due to the significant risk posed by the presence of wildlife in and around the aerodromes.

3.1.34 APANPIRG/36 also noted that the ICAO Bird Strike Information System (IBIS) wildlife strike analysis report for the year 2016-2021 indicated a significant increase in the wildlife strike reports in the APAC region as compared to the report received in the year 2008-2015.

3.1.35 Based on the analysis of the wildlife strike data of Asia and Pacific States, wildlife strikes may be included as other Regional HRCs (R-HRCs) in the Asia-Pacific Regional Aviation Safety Plan, so that a risk-based approach could be adopted in managing safety at the regional-level through collaboration between regional aviation stakeholders in a coordinated manner.

3.1.36 APANPIRG/36 further noted that the AOP/SG/9 had endorsed the following Draft Conclusion formulated by AP-WHM/WG/7 for consideration by APANPIRG/36 and coordination with RASG-APAC:

Conclusion APANPIRG/36/4: Acknowledgement of Wildlife Strike as One of the High-Risk Category of Occurrences (HRCs) for Asia and Pacific Regions	
<p>What: Acknowledging that wildlife strike is a widespread concern affecting States in the Asia Pacific Region, and some States in Asia Pacific Region have already identified Wildlife Strike as one of the National High-Risk Category of Occurrences (N-HRCs) in their National Aviation Safety Plan (NASP):</p> <p>a) Wildlife Strikes should be considered to identify as one of the Regional HRCs (R-HRCs) in the Asia-Pacific Regional Aviation Safety Plan; and</p> <p>b) take up the concern of wildlife strike to the appropriate forum of ICAO for seeking additional Safety Enhancement Initiatives as mitigation measures for all APAC States/Administrations.</p>	<p>Expected impact:</p> <p><input checked="" type="checkbox"/> Political / Global</p> <p><input type="checkbox"/> Inter-regional</p> <p><input type="checkbox"/> Economic</p> <p><input type="checkbox"/> Environmental</p> <p><input checked="" type="checkbox"/> Ops/Technical</p>
<p>Why: For harmonised application and enhancing safety at or in the vicinity of aerodromes.</p>	<p>Follow-up: <input checked="" type="checkbox"/> Required from States</p>
<p>When: 26-Nov-25</p>	<p>Status: Adopted by PIRG</p>
<p>Who: <input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input checked="" type="checkbox"/> ICAO HQ <input type="checkbox"/> Other: XXXX</p>	

Certification of Aerodromes in the Asia Pacific Region

3.1.37 APANPIRG/36 noted that out of **384** aerodromes used for international operations in Asia and Pacific Regions **354** aerodromes (*including Krabi Airport which had been certified by CAAT on 4 July 2025 (APANPIRG/36 - WP/14 refers)*) have been certified as of 4 July 2025 corresponding to **92.19 %** progress.

3.1.38 There are still **30** aerodromes used for international operations which are yet to be certified by **11 States** in different Sub Regions of Asia/Pacific Region as shown in **Table 1** below:

Aerodromes	North Asia (5 States & 2 SARs)	South East Asia (11 States)	South Asia (8 States)	Pacific (15 States & 8 OTs)
States with Int'l Aerodromes yet to be certified (number and percentage of aerodromes <u>yet</u> to be certified) [11 States, 30 Aerodromes, 7.82%]	1) China (3, 3%)	1) Brunei Darussalam (1, 100%), 2) Lao PDR (3, 75%) 3) Malaysia (1, 5%) 4) Timor-Leste (1, 50%)	1) Afghanistan (4, 100%) 2) India (9, 21%)	1) Kiribati (2, 100%) 2) Micronesia (Federal States of) (4, 100%), 3) Nauru (1, 100%), 4) Tuvalu (1, 100%)

Table 1 – Aerodromes used for international operations and yet to be certified by States in Asia/Pacific Region

3.1.39 The list of aerodromes used for international operations in Asia/Pacific Region which are yet to be certified is in **Appendix B** to the Report on agenda Item 3.1.

Publication of the Status of Certification of Aerodromes in AIP

3.1.40 States / Administrations that have yet to publish the status of certification of aerodromes in AIP AD 1.5 are provided in **Table 2**.

States	North Asia (5 States & 2 SARs)	South East Asia (11 States)	South Asia (8 States)	Pacific (15 States & 8 OTs)
AD 1.5 missing in AIP	--	1) Brunei Darussalam	1) Afghanistan	1) Kiribati 2) Nauru 3) Tuvalu 4) Marshall Is. 5) Micronesia (Federated States of) 6) Palau
Total (8 States)	0 State	1 States	1 State	6 States / OTs

Table 2 – Status of AIP AD 1.5 in Sub Regions of Asia/Pacific Region

ICAO Universal Safety Oversight Audit Programme (USOAP) and AGA Findings

3.1.41 APANPIRG/36 noted that the APAC Average AGA EI score was **62.16 %** (60.73% in June 2024) compared to Global Average of **64.20 %** as of June 2025.

3.1.42 APANPIRG/36 also noted the following results:

- 1) 18 APAC States having their EI in AGA area less than 60%;
- 2) 4 APAC States having their EI in AGA area more than 60% to less than 75%; and
- 3) 17 States have their EI in AGA area more than or equal to 75%.

3.1.43 APANPIRG/36 noted that **22** States (24 States in 2024) with EI less than 75% would require more resources and efforts to enhance their EI and meet the 75% EI target as set forth in the ICAO Global Aviation Safety Plan (GASP) 2023-2025 (Doc 10004).

Runway Safety and Runway Safety Team

3.1.44 APANPIRG/36 noted that out of **384** aerodromes used for international operations in Asia/Pacific Region, only **208** aerodromes established the RST (**Appendix C** to the Report on Agenda Item 3.1).

Enhanced Global Reporting Format (GRF) for Assessing and Reporting Runway Surface Conditions

3.1.45 APANPIRG/36 noted that **18** States/Administrations from Asia and Pacific Regions (13 States/Administrations in 2024) had published procedures for assessment and reporting of runway surface condition in AIP as of June 2025 and encouraged States/Administrations that had yet to implement the methodology for assessment and reporting of runway surface condition to implement GRF at the earliest possible opportunity and publish the procedures for assessment and reporting of runway condition report in AIP under “AD 1.2, 2 Snow plan”.

APANPIRG AOP Sub-Group TOR & Task List

3.1.46 APANPIRG/36 noted that the AOP/SG/9 had reviewed and updated the AOP/SG Work Programme and Task List presented by the Secretariat and placed at **Appendix D** to the Report on Agenda Item 3.1.

Challenges in AOP field:

3.1.47 APANPIRG/36 noted that the AOP/SG identified the following challenges in aerodrome operations and planning field:

- a) Certification of military aerodromes used for international operations.
- b) Safety oversight and safety management of Ground Handling Services.
- c) Slow Implementation of GRF and Runway Safety Team.
- d) Slow pace of transition from ACN-PCN to ACR-PCR Method of Reporting Pavement Bearing Strength.
- e) Wildlife strike hazard reduction.

Priorities in AOP field in 2026:

3.1.48 To address above challenges, the AOP/SG planned to conduct following activities in 2026:

- a) Organize Workshop on Civil/Military Cooperation in aerodrome certification.
- b) Invite States/Industry (aerodrome operator, airlines operator and ground handling agent) to present their good practices in AP-AA/WG/8 Meeting/or Organize Workshop in Ground Handling Services.

- c) Encourage States/Industries to opt Aerodrome Assistance Go-Team/Runway Safety Go-Team Mission on a cost recovery basis to obtain assistance for implementation of GRF and RST establishment.
 - d) Organize Workshop with the support from US FAA on Aerodrome Pavement Design and Evaluation including ACR-PCR Method of Reporting Pavement Bearing Strength.
 - e) Assistance to States on wildlife strike hazard reduction through the implementation of Asia/Pacific wildlife Hazard Management Go-Team Technical Assistance Mission.
- — — — —

Agenda Item 3: Performance Framework for Regional Air Navigation Planning and Implementation

3.2 ATM

ATM/SG/13 Outcomes (WP/10)

3.2.1 APANPIRG/36 was informed of the outcomes of the Thirteenth Meeting of the Air Traffic Management Sub-Group (ATM/SG/13) of APANPIRG, which was held from 25 to 29 August 2025 at the Grand Copthorne Waterfront Hotel, Singapore, including the outcomes of Air Traffic Flow Management Steering Group (ATFM/SG), APAC Search and Rescue Work Group (APSAR/WG), AIS-AIM Implementation Task Force (AAITF), and South Asia, Indian Ocean and South East Asia ATM Coordination Group (SAIOSEACG).

3.2.2 The ATM/SG/13 was attended by 131 registered participants from 24 States, two Special Administrative Regions of China and five International and ATM-related Organizations. A total of 58 Working Papers (WPs), 12 Information Papers (IPs), one flimsy and eight presentations were considered by the meeting.

3.2.3 The full ATM/SG/13 meeting report and all associated papers and presentations are available on the ICAO APAC Regional Office website at:
<https://www.icao.int/APAC/meetingdocs?fid=576> .

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

Regional ATM Progress and Coordination

3.2.5 APANPIRG/36 noted that ATM/SG/13 reviewed progress on ATM implementation and the work of related Sub-Groups and Ad Hoc Groups, developing Draft Conclusions and Decisions for APANPIRG's consideration. The ATM/SG reviewed regional progress under the Asia/Pacific Seamless ANS Plan and GANP, noting increased post-pandemic traffic and the need for enhanced efficiency and coordination. It reaffirmed the importance of collaboration among contributory bodies, including ATFM/SG, APSAR/WG, AAITF, SAIOSEACG and Ad Hoc Groups, and concluded that close coordination remained essential for harmonized ATM implementation across the region.

3.2.6 APANPIRG/36 was informed that ATM/SG/13 received a briefing from the Secretariat on the ICAO USOAP Continuous Monitoring Approach (CMA), including updates to the 2024 edition of the Protocol Questions (PQs) and the annual status of ANS implementation in the region. APANPIRG/36 noted the comparison between the 2020 and 2024 PQ editions, which showed significant changes in the ANS audit area, including 11 new PQs, five deletions, 108 revisions and nine PQs with no change. It was further confirmed that the APAC regional Effective Implementation (EI) rate of 65.40 percent remained below the global average of 66.44 percent.

Updating the Asia/Pacific Seamless ANS Plan

3.2.7 APANPIRG/36 was informed of a proposal to amend the implementation priority of the Navigation Systems (NAVS) Block 0 elements in the Asia/Pacific Seamless ANS Plan Version 4.0 and received an update on the APAC Seamless ANS Reporting Tool status. It was noted that the published priorities differed from those recommended by the CNS-related Ad Hoc Group, leading to further review at GBAS/SBAS ITF/7 and CNS SG/29 in 2025, where revised priorities for the NAVS elements were agreed.

3.2.8 APANPIRG/36 agreed to the Conclusion respectively.

Conclusion APANPIRG/36-5: Corrigendum to the Asia/Pacific Seamless ANS Plan Version 4.0		
What:	That, 1. the corrigendum to the <i>Asia/Pacific Seamless ANS Plan Version 4.0</i> at Appendix A to the Report on Agenda Item 3.2 be adopted, and uploaded to the ICAO Asia/Pacific Regional Office webpage to supplement the existing version; 2. the ICAO Secretariat to update the Asia/Pacific Seamless ANS Reporting Tool to reflect these changes; and 3. States are urged to update their national air navigation plan (NANP) to align with the revised <i>Asia/Pacific Seamless ANS Plan Version 4.0</i> .	Expected impact: <input type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical
Why:	To update and accurately reflect the priorities of ASBU NAVS elements within the Asia/Pacific Seamless ANS Plan.	Follow-up: <input type="checkbox"/> Required from States
When:	26-Nov-25	Status: Adopted by PIRG
Who:	<input checked="" type="checkbox"/> Sub groups <input type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other:	

3.2.9 APANPIRG/36 agreed to the Decision to update the ATM/SG Terms of Reference. The revision aligned the Terms of Reference with the current title “Asia/Pacific Seamless Air Navigation Service (ANS) Plan,” replacing “ATM Plan” to more accurately reflect all ANS domains, including aerodromes, meteorology and SAR.

Decision APANPIRG/36-6: Update Air Traffic Management Sub-Group of APANPIRG (ATM/SG) Terms of Reference		
What:	That, the updated ATM/SG Terms of Reference at Appendix B to the Report on Agenda Item 3.2 be adopted.	Expected impact: <input type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical
Why:	To update the TOR to revise references to the Asia/Pacific Seamless ANS Plan.	Follow-up: <input type="checkbox"/> Required from States
When:	26-Nov-25	Status: Adopted by PIRG
Who:	<input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other:	

Regional Air Navigation Plan Update

3.2.10 APANPIRG/36 was informed of progress on incorporating coordinate data for APAC FIRs and SRRs in the APAC ANP Volume I. States were reminded that Doc 9673 did not provide a legal description of FIRs and that the ongoing process of checking, alignment and validation was essential for establishing a formal basis for their FIRs. APANPIRG/36 noted that the review exercise was based on ICAO historical records rather than new proposals, and that major amendments submitted by States would only be considered if they affected national airspace alone or if all concerned parties had agreed in advance.

3.2.11 APANPIRG/36 further noted that 30 FIRs and 15 SRRs had been approved by the President of the Council and incorporated into the ATM Table I-1 of APAC ANP Volume I. It was also observed that several unresolved issues continued to affect the finalization of certain FIR and SRR boundaries, and States and Administrations were urged to provide updates on any bilateral or trilateral discussions aimed at resolving these outstanding matters.

Digital Reporting of ANS Progress

3.2.12 APANPIRG/36 noted that the ATM/SG's implementation status of ANS-related plans had been reported through Microsoft Excel-based forms submitted by email for AIM, ATFM, ATM Contingency and SAR. This manual reporting process required substantial consolidation effort by ICAO after the annual 28 February deadline and was susceptible to human errors, including duplicate entries and inconsistent formatting, which affected the accuracy and reliability of the resulting data and analyses.

3.2.13 To streamline data collection and improve efficiency, APANPIRG/36 noted the Conclusion adopted by ATM/SG to replace paper and Microsoft Excel-based forms with digital reporting forms - ***Conclusion ATM/SG/13-3: The Use of Digital Form to Collect Annual Regional ANS-related Monitoring and Reporting Data***, approving Microsoft Forms as the primary tool for collecting annual regional ANS-related data. Relevant meetings, including ATFM/SG/15, APSAR/WG/10, and AAITF/20, agreed on draft conclusions supporting the use of digital forms. The relevant reporting files on the ICAO APAC Office eDocuments webpage would be revised accordingly.

Air Navigation Service Deficiencies

3.2.14 APANPIRG/36 was informed that ATM/SG/13 had recommended a change proposal for consideration by APANPIRG/36, involving the deletion of Australia's deficiency related to non-compliance with Annex 2 requirements for the designation of restricted areas.

3.2.15 Separately, after ATM/SG/13, the ICAO APAC Office received supplementary evidence from Thailand demonstrating implementation of the APAC ANP Vol II, Part I, Section 3 on SAR. Following a review by the Secretariat and the APSAR/WG Chairperson, the removal of Thailand's deficiency was proposed for consideration by APANPIRG/36, noting an implementation status of 92 percent (Robust).

Implementation of Project 30/10 in Asia/Pacific Region

3.2.16 APANPIRG/36 was presented with a proposal for the regional adoption of Project 30/10 in the APAC region to enhance ATM efficiency through the application of more optimized longitudinal separation minima, consistent with ***AN-Conf/14 Recommendation 3.1/1***. APANPIRG/36 acknowledged that further progress was required to fully achieve the project's objectives and agreed on the need to develop regional action plans in coordination with adjacent regions.

3.2.17 It was further agreed that a dedicated Task Force would be responsible for developing a regional roadmap for Project 30/10 implementation in the APAC region. APANPIRG/36 agreed to the Decision respectively.

Decision APANPIRG/36-7: Establishment of APAC Project 30/10 Task Force		
What:	That, the APAC Project 30/10 Task Force be established under the ATM/SG to develop the Asia/Pacific regional roadmap that include, but not limited to, the following tasks:	Expected impact: <input checked="" type="checkbox"/> Political / Global <input checked="" type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental

<p>a) a further comprehensive analysis of the current separation minima applied within the Asia/Pacific Administrations and between adjacent FIRs;</p> <p>b) the identification of technical and operational enablers necessary for the successful implementation of Project 30/10, including reviewing and updating regional documents;</p> <p>c) collaboration with adjacent regions to achieve harmonized implementation of Project 30/10; and</p> <p>d) an assessment of training needs for controllers to effectively apply more efficient separation minima.</p>	<input checked="" type="checkbox"/> Ops/Technical
<p>Why: To provide the regional roadmap for the implementation of more efficient separation minimum in the Asia/Pacific Region, in accordance with AN-Conf/14 Recommendation 3.1/1.</p>	<p>Follow-up: <input checked="" type="checkbox"/> Required from States</p>
<p>When: 26-Nov-25</p>	<p>Status: Adopted by PIRG</p>
<p>Who: <input checked="" type="checkbox"/> Sub groups <input type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other:</p>	

ATFM and A-CDM

3.2.18 APANPIRG/36 noted ongoing progress in multi-nodal ATFM operations and emphasized the need for interoperability, data sharing and harmonized procedures. It also considered a proposal to rename ATFM/SG to the ATFM & A-CDM/SG to further support A-CDM implementation.

3.2.19 APANPIRG/36 further noted the establishment of the APAC ATFM Concept Design Ad Hoc Group, comprising 11 States/Administration, CANSO, IATA, and IFATCA, tasked with developing a revised Regional ATFM Concept of Operations for consideration by ATFM/SG/17 in 2027.

3.2.20 APANPIRG/36 agreed to the Decision to modify of Name of ATFM Steering Group to ATFM and A-CDM Steering Group.

Decision APANPIRG/36-8: Modification of Name of ATFM Steering Group (ATFM/SG) to ATFM and A-CDM Steering Group (ATFM & A-CDM/SG)	
<p>What: That,</p> <p>1. the name of the ICAO Asia/Pacific Air Traffic Flow Management Steering Group (ATFM/SG) changed to the ICAO Asia/Pacific Air Traffic Flow Management and Airport Collaborative Decision Making Steering Group (ATFM & A-CDM/SG); and</p> <p>2. the Terms of Reference (TOR) be amended to reflect the Steering Group name change (Appendix C to the Report on Agenda Item 3.2).</p>	<p>Expected impact:</p> <p><input type="checkbox"/> Political / Global</p> <p><input type="checkbox"/> Inter-regional</p> <p><input type="checkbox"/> Economic</p> <p><input type="checkbox"/> Environmental</p> <p><input checked="" type="checkbox"/> Ops/Technical</p>
<p>Why: To encourage participation of appropriate individuals with operational experience of Airport and A-CDM operations from States and Administrations</p>	<p>Follow-up: <input checked="" type="checkbox"/> Required from States</p>
<p>When: 26-Nov-25</p>	<p>Status: Adopted by PIRG</p>
<p>Who: <input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other:</p>	

3.2.21 In addition, APANPIRG/36 noted that the following Conclusions related to ATFM and A-CDM were agreed by the ATM/SG/13.

Conclusion ATM/SG/13-4: Addition of Appendix to the Asia/Pacific Regional Framework for Collaborative ATFM

Conclusion ATM/SG/13-14: Normalization of Asia/Pacific Regional A-CDM Monitoring and Reporting Scheme

Conclusion ATM/SG/13-5: Change Process of the FIXM Version Used for Asia/Pacific Cross-Border Operational ATFM System-to-System Information Exchange in SWIM

3.2.22 APANPIRG/36 was informed that the ICAO APAC Airport and Airspace Capacity Assessment Workshop, hosted by AirNav Indonesia in June 2025, brought together participants from 12 States/Administrations and international organizations to share best practices on capacity assessment. APANPIRG/36 also noted that ICAO had presented a draft regional guidance on airport and airspace capacity assessment, which would be refined with input from ATFM Points of Contact and submitted to ATM/SG/16 in April 2026.

3.2.23 Separately, APANPIRG/36 noted experience shared on cooperation between an ANSP and a meteorological agency to initiate ATFM measures during forecast deep convection, improving operational efficiency and reducing delays. Early detection and extended forecasting were highlighted as valuable for planning and coordination, and States were encouraged to strengthen such collaboration to better manage weather-related operational challenges.

3.2.24 Regarding the Draft Decision related to the ATM/SG, it was raised that using the abbreviation “SG” for the Steering Group could lead to confusion with other Sub-Groups such as the ATM/SG, and it was suggested that consideration should be given to avoiding the use of “SG” when referring to the Steering Group. It was confirmed that the Steering Group was described in the APANPIRG Procedural Handbook and that the usage in this regard was consistent with the guidelines. It was also noted that the abbreviation “SG” was also used to refer to Study Group. APANPIRG/36 agreed to discuss the matter within the ATFM & A-CDM Steering Group, with due consideration to avoiding confusions, and to report the outcome to the ATM/SG.

Ad Hoc Group Activities

3.2.25 APANPIRG/36 noted the updates on Ad Hoc Group activities. The Procedures for GNSS and Data Link Disruption Ad Hoc Group finalized its ToR and clarified its focus on operational mitigation measures. The Data Analytics Group analysed airport data from eight States using GANP-aligned KPIs, emphasizing links between performance and infrastructure, and planned expanded KPI work and cross-boundary studies. The APAC FF-ICE Ad Hoc Group continued developing a draft Regional FF-ICE/R1 Implementation Framework following its second workshop. APANPIRG/36 also noted that the Ad Hoc Group had been actively promoting regional understanding of FF-ICE and advancing implementation discussions, and agreed to the proposed Terms of Reference to support its work, adopting ***Decision ATM/SG/13-15: Adoption of APAC FF-ICE Ad Hoc Group Terms of Reference.***

Trajectory-Based Operations (TBO)

3.2.26 APANPIRG/36 noted regional TBO developments, recognizing its contribution to improved predictability, efficiency and environmental performance through enhanced trajectory management and data exchange.

3.2.27 An APAC TBO Roadmap for incorporation into the Asia/Pacific Seamless ANS Plan was introduced, providing a structured approach to TBO implementation aligned with ICAO panel work and regional initiatives such as SWIM and FF-ICE. APANPIRG/36 recognized the roadmap as a timely and harmonized pathway to support regional TBO implementation.

3.2.28 APANPIRG/36 noted that ATM/SG/13 agreed to ***Conclusion ATM/SG/13-6: TBO Related Revisions for the Asia/Pacific Seamless ANS Plan.***

Contingency and Crisis Management

3.2.29 APANPIRG/36 was updated on the regional contingency framework and highlighted the need for compatibility across FIR boundaries, as well as civil-military and inter-State coordination. Updates on Kabul FIR contingency operations were provided, including the phased implementation of revised arrangements and the subsequent resumption of BOBCAT procedures. States were encouraged to update national contingency plans and share lessons learned.

3.2.30 Currently, the POC List for the East Asia and North Pacific CCT was maintained separately from the consolidated ATM Points of Contact List. To promote streamlined communication, minimize the risk of missed or duplicated messages, and ensure that the appropriate contacts were reached promptly, ATM/SG/13 agreed to the ***Conclusion ATM/SG/13-7: Consolidation of the East Asia and North Pacific Contingency Coordination Team POC Details with the ATM Points of Contact List.***

3.2.31 In addition, it was noted that some States had shared their contingency experiences, including those related to cyclone impacts and volcanic activity, as valuable lessons learned. ATM/SG/13 expressed appreciation for the information shared and emphasized the importance of maintaining robust and adaptable ATM contingency plans to ensure operational safety and continuity during severe weather events or other disruptions to ATS.

Civil-Military ATM Cooperation

3.2.32 Civil-Military Cooperation in Air Traffic Management (CMAC), including the flexible use of airspace (FUA), was highlighted as a key element of the ICAO GANP and a priority under the Asia/Pacific Seamless ANS Plan and the Delhi Declaration. With air traffic in the region expected to grow rapidly and CMAC implementation still developing, continued collaboration among States, Administrations and ICAO was emphasized. Several States had already made progress, and a CMAC/FUA implementation survey was circulated to assess the current status and identify regional needs.

3.2.33 It was also noted that an inter-regional workshop on enhanced CMAC and FUA implementation would be held in Bangkok, Thailand, from 19 to 23 January 2026. Co-hosted by the ICAO APAC Regional Sub-Office and the EUR/NAT Office, the event would feature tabletop exercises and case studies covering civil-military coordination, FUA design, safety assessments, performance evaluation and system interoperability.

Danger Area over High Seas

3.2.34 APANPIRG/36 noted concerns regarding the establishment of a danger area across a Flight Information Region (FIR) boundary without prior coordination among the affected States. It was emphasized that advance consultation and transparency in accordance with ICAO Annexes 11 and 15 were essential to maintaining civil aviation safety.

3.2.35 ATM/SG/13 noted concerns regarding the uncoordinated establishment of a danger area over the high seas. APANPIRG/36 underscored the need for strengthened coordination

mechanisms to ensure that any establishment of danger areas over the high seas was properly coordinated, transparent, and aligned with ICAO provisions.

3.2.36 APANPIRG/36 was also informed of inconsistencies in the published coordinates of rocket launch danger areas between adjacent FIRs, which had created confusion and increased workload for pilots and dispatchers. These discrepancies were linked to variations in airspace closure coordination and NOTAM publication processes. It was also noted that some ANSPs had unilaterally added supplementary buffer zones around danger areas. While intended to enhance safety, such additions at times resulted in inconsistencies between FIRs. The need for improved pre-launch coordination and harmonized publication of danger areas across FIRs was emphasized to ensure clarity and safety. Reference was made to existing ICAO and regional guidance, including **Conclusion ATM/SG/9-4** on managing danger areas over the high seas. ICAO would arrange future workshops on this topic, with the agenda and timing to be coordinated and hosting opportunities open to interested States.

Free Route Operations

3.2.37 APANPIRG/36 was informed of updates on the South-East Asia–Oceanic Free Route Operations (SEA-O FRTO) project under AAC Workstream 4, which involved collaboration among several ANSPs and airlines to integrate existing and emerging user preferred route (UPR) programmes and enable more flexible cross-FIR operations for 37 agreed city pairs. The operational trial demonstrated improved efficiency, with notably positive results on several routes, although benefits had been more limited on others due to seasonal wind patterns. The project team planned to use the trial data and lessons learned to develop guidance material to support broader ANSP transition to Free Route Operations, with the guidance expected to be finalized and submitted for endorsement by the AAC in 2026 to further advance seamless and efficient regional airspace operations.

FUKUE-AKARA Corridor (A593) Operations

3.2.38 APANPIRG/36 was informed of measures proposed to further enhance safety and efficiency on a segment of ATS route A593 where increasing traffic and observed Large Height Deviations (LHDs) had highlighted operational challenges. Phase 2 of the normalization plan included adjustments to transfer of control (TOC) points, implementation of AIDC, establishment of triple routes, and reduced longitudinal separation. Although responsibility for the airspace concerned had been delegated to a neighbouring ACC, the delegating State reaffirmed its continued oversight obligations under ICAO Annex 11 and noted that additional coordination would be beneficial to support progress.

3.2.39 APANPIRG/36 further noted that both States had agreed in April 2025 to implement an LHD event-sharing mechanism, which had contributed to strengthened safety monitoring. To reinforce safety management of the delegated airspace, it was suggested that broader safety oversight information such as non-compliance reports, safety performance analyses and risk assessments could be shared to enhance transparency and collaborative safety assurance in line with ICAO provisions.

3.2.40 Separately, APANPIRG/36 received an update on ongoing efforts to optimize operations within the Corridor. While Phase 1 had been implemented in 2021, Phase 2 remained pending due to various external factors. Suggestions were offered to remove certain altitude restrictions and continue advancing structural improvements, noting that further dialogue would be required to harmonize views on TOC point adjustments and the timing of AIDC implementation. States reaffirmed their commitment to an open and cooperative approach and agreed to continue discussions through bilateral and multilateral meetings, with a joint update to be presented to ATM/SG/14 in 2026.

AIS-AIM Implementation

3.2.41 APANPIRG/36 was informed of the outcomes of the Twentieth Meeting of the AIS–AIM Implementation Task Force (AAITF/20), which highlighted ongoing regional deficiencies and weaknesses in AIS quality management System (QMS). States and Administrations were encouraged

to submit annual AIM implementation reports, although overall progress remained limited. APANPIRG/36 also discussed issues related to NOTAM proliferation and data quality, supported by airline feedback and recent training initiatives introduced by several States.

3.2.42 Updates were provided on five-letter name-code (5LNC) and five-character alphanumeric code (5ANNC) management, including support for the establishment of an APAC 5LNC Ad Hoc Group to address code shortages and duplication. Progress reported by the APAC Common SWIM AIS Ad Hoc Group was noted, and the ATM/SG/13 agreed to **Conclusion ATM/SG/13-8 on the removal of non-allocated 5LNCs beginning with “X”** as well as **Draft Decision ATM/SG/13-12 to update the AAITF Terms of Reference (TOR)**.

3.2.43 APANPIRG/36 agreed to the Decision to update the AAITF Terms of Reference.

Decision APANPIRG/36-9: Update AAITF Terms of Reference (TOR)			
What: That, the updated AAITF Terms of Reference at Appendix D to the Report on Agenda Item 3.2 be adopted.		Expected impact: <input type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical	
Why: The first edition of the Manual on System-Wide Information Management (SWIM) Implementation was published in 2024 as ICAO Doc 10203, as well as PANS-IM (Doc 10199).		Follow-up:	<input type="checkbox"/> Required from States
When: 26-Nov-25		Status:	Adopted by PIRG
Who: <input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other:			

3.2.44 APANPIRG/36 also noted challenges in 5LNC management, including processing timelines, similarity-based rejections and the adequacy of the current 500 NM proximity check radius and that the Ad Hoc Group would undertake a detailed study, including a safety assessment, on the possible reduction of the radius.

3.2.45 Separately, APANPIRG/36 was informed of initiatives to advance the transition from AIS to AIM Phase II and III through the digitalization of aeronautical data in AIXM-compliant formats and related system upgrades. These efforts aimed to improve data quality, support data-centric processes and enhance readiness for future SWIM integration. States were encouraged to share experiences to support similar transitions across the region.

Asia/Pacific Search and Rescue Update

3.2.46 APANPIRG/36 was informed of the outcomes of the Tenth Meeting of the Asia/Pacific Search and Rescue Workgroup (APSAR/WG/10), which reviewed proposed amendments to the IAMSAR Manual, including updated naming conventions for rescue coordination centres and sub-centres. It was proposed that centres adopt geographic names and be identified by their facility type, such as Aeronautical Rescue Coordination Centre (ARCC), Maritime Rescue Coordination Centre (MRCC) or Joint Rescue Coordination Centre (JRCC), to ensure global consistency. APANPIRG/36 also noted that many APAC Administrations were not yet fully prepared for Autonomous Distress Tracking (ADT) implementation and would need to incorporate ADT requirements into safety oversight procedures, operational manuals and training programmes. It was further noted that SAR-related USOAP CMA Protocol Questions remained 16 and that the regional SAR Effective Implementation rate had increased slightly to 55 percent.

3.2.47 ATM/SG/13 reviewed the draft Asia/Pacific SAR Plan Version 5.0 and agreed to **Conclusion ATM/SG/13-9: Revised Asia/Pacific SAR Plan**. The ATM/SG/13 noted that APSAR/WG also discussed the proposal to replace the term “SAR capability” with “SRU capability” in the Plan, with Administrations encouraged to report such information to APSAR/WG rather than exchange it bilaterally each year. While the value of accessible SRU capability information for decision-making was recognized, concerns were raised about sharing sensitive military information. It was agreed that submissions would be voluntary and limited to SRUs authorized for operation in neighbouring SRRs, and ATM/SG/13 agreed to **Conclusion ATM/SG/13-10: Proposal Annual Submission of Asia/Pacific Search and Rescue Unit (SRU) Capability**.

3.2.48 APANPIRG/36 noted the limited expertise within the SAR community regarding SWIM implementation and ADT applicability and encouraged States and Administrations to participate in the SAR workshop planned in conjunction with APSAR/WG/11, in May 2026.

Setting Air Navigation Service Charges and Processing Overflight Approvals

3.2.49 APANPIRG/36 was informed that ATM/SG/13 had reviewed ICAO’s established principles on ANS charges, underscoring the need for transparent consultation with airspace users before introducing or modifying charging systems, and recalling that States should not impose charges solely for flight authorizations in accordance with Article 15 of the Chicago Convention. Challenges related to overflight and air defence clearances were noted, including inconsistent information requirements, misaligned FIR and ADIZ boundaries, and the absence of automated approval systems. ATM/SG/13 encouraged States and Administrations to consider adopting more efficient, technology-driven approval processes, such as integration with flight plan submissions or automated online systems, and to establish structured consultation mechanisms, emphasizing that timely information exchange and fee settlement were essential to ensuring transparency, financial stability and sustainable ANS provision.

Advanced Air Mobility (AAM) and Emerging Technologies

3.2.50 APANPIRG/36 noted ICAO’s ongoing work to support the safe integration of AAM and highlighted the Second Advanced Air Mobility Symposium (AAM 2026), scheduled for 30 November – 4 December 2026 in Bangkok, Thailand, as an important platform for regional harmonization.

Election of Chairperson

3.2.51 APANPIRG/36 noted that Mr. Vincent Hwa, Director of Air Traffic Services of Singapore, was elected as the next Chairperson of the ATM/SG.

ATM/SG Chairperson’s view on challenges/priorities

3.2.52 ATM/SG Chairperson informed APANPIRG/36 of the following challenges in 2025.

- a) **FIR/SRR Review:**
Progress remains limited, with many cases requiring clarification or justification with neighbouring States. APAC States were urged to review FIR/SRR data not listed in APAC ANP Volume I and provide accuracy feedback to the APAC Office.
- b) **Autonomous Distress Tracking (ADT):**
A recent survey showed that most APAC Administrations were not yet ready for ADT applicability, with several tasks still pending. States/Administrations should accelerate ADT implementation. A SAR workshop would be held in 2026 alongside APSAR/WG/11 to support this effort.

3.2.53 ATM/SG Chairperson informed APANPIRG/36 of the following priorities in 2025.

- a) Updating APAC ANP Volume III:
With the upcoming release of GANP (8th Edition), APAC ANP Volume III would be updated to reflect relevant ASBU elements and regional implementation priorities.
- b) Efficient ATC Separation Minima:
Further progress was needed to meet AN-Conf/14 Recommendation 3.1/1 (Project 30/10). A regional Project 30/10 Task Force would be formed to develop action plans harmonized with adjacent regions.
- c) GNSS and Data Link Disruption Coordination:
The Ad Hoc Group met regularly. APAC States/Administrations were encouraged to participate and share occurrence data and best practices for coordinating disruptions among pilots, airlines, ATC, ANSPs, and other stakeholders.
- d) Space Object Launch/Re-entry Coordination:
A workshop would be held in 2026 to improve understanding and capability for coordinating space object launch and re-entry activities, and to promote harmonized publication of danger areas.

Summary of ATM-related Conclusions and Decisions considered by APANPIRG/35

3.2.54 APANPIRG/36 noted the following technical Conclusions, and Decisions on ATM/SG working arrangements, agreed by ATM/SG/13.

- *Conclusion ATM/SG/13-3: The Use of Digital Form to Collect Annual Regional ANS-related Monitoring and Reporting Data;*
- *Conclusion ATM/SG/13-4: Addition Appendix to the Asia/Pacific Regional Framework for Collaborative ATFM;*
- *Conclusion ATM/SG/13-5: Change Process of the FIXM Version Used for Asia/Pacific Cross-Border Operational ATFM System-to-System Information Exchange in SWIM;*
- *Conclusion ATM/SG/13-6: TBO Related Revisions for the Asia/Pacific Seamless ANS Plan;*
- *Conclusion ATM/SG/13-7: Consolidation of the East Asia and North Pacific Contingency Coordination Team POC Details with the ATM Points of Contact List;*
- *Conclusion ATM/SG/13-8: Removal of Available (Non-Allocated) 5LNCs Starting with 'X' and Release of Block Codes;*
- *Conclusion ATM/SG/13-9: Revised Asia/Pacific SAR Plan;*
- *Conclusion ATM/SG/13-10: Proposal Annual Submission of Asia/Pacific Search and Rescue Unit (SRU) Capability;*
- *Conclusion ATM/SG/13-14: Normalization of Asia/Pacific Regional A-CDM Monitoring and Reporting Scheme; and*
- *Decision ATM/SG/13-15: Adoption of APAC FF-ICE Ad Hoc Group Terms of Reference.*

General Conclusions

3.2.55 APANPIRG/36 recognized continued progress across ATM activities and underscored the importance of addressing remaining deficiencies and sustaining regional cooperation. APANPIRG/36 also expressed appreciation to Mr. Kuah Kong Beng for his significant contributions and leadership to the ATM/SG.

Proposal for the Review of the Region ATM Contingency Plan (WP/16)

3.2.56 Drawing upon its experience, particularly the Great East Japan Earthquake, Japan underscored the importance of proactively preparing, deploying and appropriately utilizing emergency air security equipment, such as ATC towers, radar systems, and transportable navigation aids. This approach was vital for the rapid restoration of airports to serve as transportation hubs and enable the resumption of commercial operations, to support reconstruction.

3.2.57 In light of this, Japan encouraged APAC States/Administrations to acknowledge the significance of these facilities and to share insights from their operational experiences with temporary emergency equipment during disaster events. Japan further proposed a comprehensive review and updating of the *Asia/Pacific Region ATM Contingency Plan* to ensure its continued relevance, effectiveness and alignment with current operational risks and regional coordination.

3.2.58 ICAO recognized the critical importance of contingency planning and the resilience of ANS. As a result, workshops were conducted globally, including in APAC region in 2024, to raise awareness through realistic scenarios. The sharing of information regarding emergency facilities proved valuable for Administrations' internal use, and incorporating such details into States/Administrations' contingency or emergency response plans became essential during actual events. APANPIRG/36 was informed that the matter of contingency and crisis management was under review at ICAO Headquarters, and a regional workshop for APAC region was planned in 2026.

3.2.59 The United States stated, in relation to contingency management, that participants were invited to refer to IP/08 regarding the Designing Pre-coordinated Routes for Operations with Surveillance and Communication Limitations.

3.2.60 The Chairperson thanked Japan for sharing its experience and emphasized the importance of effective preparedness in emergency air security equipment, as well as the need for appropriate deployment during disasters. Additionally, the Chairperson encouraged other APAC States/Administrations to share their experiences in utilizing emergency facilities during natural disasters, so that these lessons could assist those States/Administrations that had not encountered such situations before.

Update on Efforts by Timor-Leste to Improve ANS Standards and Compliance and Request for Regional Assistance (WP/19)

3.2.61 Timor-Leste presented update on its progress in improving ANS standards and compliance. Concerted efforts, supported by numerous missions, audits and assistance from ICAO and other agencies had led to significant advancements. These included the design, validation and publication of new instrument flight procedures (IFPs) for Suai International Airport (WPDB). Similarly, Oe-Cusse Airport (WPOC) had commenced regular commercial service, prompting the establishment of an aerodrome traffic zone and ongoing IFPs development. Aerodrome certification processes had also been initiated for both airports.

3.2.62 APANPIRG/36 was further informed that a Letter of Operational Coordination Procedure (LOCA) regarding AIS operational coordination procedures had been established with Indonesia. Additionally, an annual Air Traffic Services (ATS) Coordination Meeting between Timor-Leste and Indonesia was recently conducted to review and update operational procedures between the two States.

3.2.63 Despite these notable improvements, Timor-Leste recognized that sustained ANS development presented challenges, particularly where internal technical expertise was still evolving, thereby necessitating external specialist support to further enhance the national aviation ecosystem.

3.2.64 Japan informed APANPIRG/36 that, in alignment with the ICAO initiative "No Country Left Behind," the Japan Civil Aviation Bureau (JCAB), in collaboration with the Japan International Cooperation Agency (JICA), had conducted various international cooperation activities in the APAC region to support capacity development. APANPIRG/36 noted that JICA was scheduled to conduct a survey in the following week to identify the types of support that could be offered to Timor-Leste.

3.2.65 The Chairperson of the ATM/SG informed that the ATM/SG meeting addressed various issues aimed at enhancing ATM and expressed a keen interest in understanding the current situation of Timor-Leste and the types of support required. Consequently, the Chairperson of the ATM/SG encouraged Timor-Leste to participate in future ATM-related meetings, as such involvement would facilitate a better understanding of their needs and identify potential avenues for support.

3.2.66 Following the comments from the Chairperson of the ATM/SG, the ICAO Secretariat proposed convening an offline discussion with Timor-Leste to gather further details to better understand their needs. Based on that discussion, ICAO APAC Office would then consider the type of support that could be provided in the next year.

Modernization of Air Navigation Infrastructure in Indonesia (IP/07)

3.2.67 APANPIRG/36 was informed that Indonesia had continued its air navigation modernization programme in line with the GANP and the Asia/Pacific Seamless ANS Plan. Progress was reported on the installation of a new ATM automation system (ATMAS) at the Jakarta Air Traffic Services Centre, featuring ADS-C, CPDLC, AIDC, AMAN/DMAN and future FIXM capability; the deployment of a centralized ATFM system supporting national flow management and integration with existing ATM systems; the enhancement of the AMHS for reliable ATS, AIDC and IWXXM data exchange; and the transition from AIS to AIM through digital datasets and AIXM-ready services. Implementation remained on schedule, with installation and integration planned for completion in Q1 2026, operational readiness in Q2, and full operational capability of the new Jakarta Air Traffic Services Centre targeted for Q3 2026, supporting improvements in safety, capacity and operational efficiency.

FAA Coordination Collaboration: Designing Pre-coordinated Routes for Operations with Surveillance and Communication Limitations (IP/08)

3.2.68 The United States informed APANPIRG/36 that it had updated its FAA contingency planning policy to enhance coordination with international partners and to support ICAO's request for predefined and pre-shared contingency routes. FAA facilities adjacent to international ANSPs were required to collaboratively develop surveillance-based contingency routes, document procedures in Letters of Agreement and ATM contingency plans, and ensure communication and safety requirements were met before supporting any routing. Key coordination considerations included surveillance and communication limitations, potential outages, mitigation options, available assets, and safety implications. Early national and regional coordination was encouraged while the policy update remained pending.

— — — — —

Agenda Item 3: Performance Framework for Regional Air Navigation Planning and Implementation

3.3 RASMAG

RASMAG Outcomes (WP/11)

3.3.1 The Fifteenth Meeting of the FANS Interoperability Team-Asia (FIT-Asia/15) and the Thirtieth Meeting of the Regional Airspace Safety Monitoring Advisory Group (RASMAG/30) were held in Bangkok, Thailand, from 24 to 27 June 2025 and 14 to 17 July 2025, respectively. RASMAG was a Sub-Group of APANPIRG, and the FIT-Asia would report to RASMAG.

FIT-Asia Meeting Outcomes

3.3.2 The FIT-Asia/15 was provided with updated information of Data Link Performance Reports by FIT-Asia member States and was reminded that the revised colour key code for “yellow – acceptable performance” had been discussed at FIT-Asia/14, and that RASMAG/29, **Conclusion RASMAG/29-1: Revised colour key codes for Asia/Pacific PBCS reporting templates** refers.

3.3.3 States were urged to use the latest template to ensure accurate data collection and analysis; therefore, all future submissions should align with the updated format.

3.3.4 Indonesia and Malaysia presented the aggregated data link performance monitoring report for the APAC region, prepared with support from Japan. The combined data for required surveillance performance (RSP) across all media types in 2024. The 95 percent standard was achieved in all FIRs. None of the FIRs met the 99.9 percent standard, but all FIRs except Chennai and Kolkata achieved a clearance rate of 99.0 percent.

3.3.5 FIT-Asia meeting discussed the extension of the Network Outage Reporting and Impact Assessment (NORIA) Handbook for global applicability. As the current draft only covered the North Atlantic (NAT) region, there were discussions underway to expand its scope globally. EUROCONTROL had already supported its extension to continental Europe. The FIT-Asia meeting highlighted the need for regular updates to maintain data accuracy, and Operational Data Link Working Group (OPDLWG) members confirmed they would take responsibility for keeping the handbook current if adopted globally.

3.3.6 FIT-Asia acknowledged that while some States had expressed concerns, the proposed changes involved only the implementation of standardized reporting and broader notification procedures, without causing any disadvantage. FIT-Asia/15 supported the extension of the NORIA Handbook for global applicability and Singapore would inform the OPDLWG of this support.

3.3.7 Given that India had submitted the data link performance report for all the three FIRs, including Mumbai FIR, and completed annual Survey of the Status of Current and Planned Implementation of Performance-Based Horizontal Separation Minima form for 2025, the FIT-Asia/15 agreed to the proposal to remove India from the APANPIRG ATM and Airspace Deficiencies list in the Data Link field, which would be proposed to RASMAG for further consideration. (3.3.24 - ATM and Airspace Safety Deficiencies List refers)

3.3.8 It was recalled that APANPIRG/34 had urged States to establish formal service agreements with APANPIRG-recognized CRAs, in accordance with ICAO Annexes 6 and 11. During FIT-Asia/14, discussions were held on the possibility of expanding the existing CRA service contract used in the IPACG, ISPACG, and NAT region to include FIT-Asia States lacking formal CRA agreements. However, this initiative could not proceed due to unforeseen administrative changes,

despite prior coordination, thereby impacting other States that had anticipated inclusion under the expanded arrangement.

3.3.9 In light of this, the FIT-Asia/15 acknowledged the need for affected States to engage directly with APANPIRG-recognized CRAs to fulfil performance monitoring requirements. Boeing, as FIT-Asia CRA, was encouraged to remain flexible and provide support throughout this coordination process. Several FIT-Asia member States that had not yet established a formal service agreement with the CRA took the opportunity to hold side meetings with Boeing to discuss potential formal service agreements.

3.3.10 A Performance-Based Communication and Surveillance (PBCS) Seminar was conducted in conjunction with FIT-Asia/15 on 26 June 2025. Presentations were delivered by China, Japan, New Zealand, Singapore, Boeing, Inmarsat and ICAO. The presentation materials were available on the FIT-Asia/15 webpage.

RASMAG/30 Meeting Outcomes

3.3.11 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 Asia/Pacific RMAs and EMAs. The report was divided into the Pacific (PAC) area, and Asia area. The full APAC consolidated Safety Report can be found in **Appendix A** to the Report on Agenda Item 3.3.

3.3.12 The estimated vertical collision risk for 2024 for the PAC area did not meet the Target Level of Safety (TLS) (**Table 3.3- 1**).

Table 3.3- 1: Pacific Area Vertical Collision Risk 2024

Pacific Area – annual flying hours = 3,727,882 hours			
Source of Risk	Risk Estimation	TLS	Remarks
Vertical Technical Risk	0.20×10^{-9}	2.5×10^{-9}	Below Technical TLS
Vertical Operational Risk	15.33×10^{-9}	-	-
2024 Vertical Overall Risk	15.53×10^{-9}	5.0×10^{-9}	Above TLS

3.3.13 There was a total of 139 Large Height Deviations (LHDs) in the Pacific area in 2024 (increased from 134 in 2023), with total duration 1,119 minutes and 75 levels crossed. 38 of the occurrences were Category¹ A, B or C (27%), 65 were Category D, E or F (47%), two were Category

¹ Categories of LHD events as recognized by RMAs were:

Category A: Flight crew fails to climb or descent the aircraft as cleared;

Category B: Flight crew climbing or descending without ATC clearance;

Category C: Incorrect operation or interpretation of airborne equipment;

Category D: ATC system loop error;

Category E: Coordination errors in ATC-to-ATC transfer of control responsibility as a result of human factors issues;

Category F: ATC transfer of control coordination errors due to technical issues;

Category G: Aircraft contingency leading to sudden inability to maintain level;

Category H: Airborne equipment failure and unintentional or undetected level change;

Category I: Turbulence or other weather-related cause leading to unintentional or undetected change of flight level;

Category J: TCAS RA – flight crew correctly climb or descend following the RA;

Category K: TCAS RA – flight crew incorrectly climb or descend following the RA;

Category L: An aircraft being provided with RVSM separation is not approved; and

Category M: Others.

G or H (1%), 15 in Category I (11%), 17 were Category J or K (12%), and two were Category L or M (1%).

3.3.14 The estimated vertical collision risk for 2024 for the Asia area met TLS (**Table 3.3- 2**). The overall risk was below the TLS. There was a total of 763 LHDs reported in the Asia area in 2024 (decreased compared to 824 in 2023), with total duration 210 minutes and 225.2 levels crossed.

Table 3.3- 2: Asia Area Vertical Collision Risk 2024

Asia Area – annual flying hours = 11,413,712 hours			
Source of Risk	Risk Estimation	TLS	Remarks
Vertical Technical Risk	0.70×10^{-9}	2.5×10^{-9}	Below Technical TLS
Vertical Operational Risk	1.29×10^{-9}	-	-
2024 Vertical Overall Risk	1.99×10^{-9}	5.0×10^{-9}	Below TLS

3.3.15 RASMAG reviewed the LHD Hot Spots list which included, the FIRs involved, the year of identification, and status remarks. Three Hot Spots were identified as Potential non-hot Spots, namely D1 - Fukuoka/Manila, D8 - Manila/Ujung Pandang and I - Jakarta/Kota Kinabalu/Singapore.

RASMAG Safety Bulletin

3.3.16 Japan Airspace Safety Monitoring Agency (JASMA) developed the draft Safety Bulletin 03 with the topic of Crew/Team Resource Management that was recognized to be important and necessary for strengthening human relationships. RASMAG/30 agreed that the bulletin required further editing and additional comments should reach the Chairperson by end of September 2025 before publication on the ICAO APAC eDocuments webpage by end of 2025.

Incorporation of Human Factors Assessment Questionnaire (HFAQ) into the Guidance Material for Continued Safety Monitoring of Asia and Pacific RVSM Airspace

3.3.17 MAAR and South East Asia Safety Monitoring Agency (SEASMA) jointly developed the revised version of the LHD Analysis Form (Form A) incorporating the elements from the Human Factors Assessment Questionnaire (HFAQ) to assist the analysis of occurrences where human factors issues are identified, especially Category E LHDs. To address the current gap which the current analysis of Category E LHDs and its sub-categories did not consider the underlying human factors that contribute to the direct erroneous actions or inaction by the individuals involved in the occurrence.

3.3.18 The HFAQ comprised a three-tiered approach to data collection and analysis. States and ANSPs were encouraged to utilize the revised version of Form A, which incorporated the guidelines from the HFAQ and provide comments for the HFAQ and Form A by end of 2025 to further discussion in the MAWG meeting next year.

Classification and Reporting for Non-RVSM Approved Aircraft Operating in RVSM Airspace and Occurrences Caused by GNSS Radio Frequency Interference

3.3.19 RASMAG agreed to the formation of a new LHD/LLE/LLD category for classifying the emerging trends of GNSS RFI occurrences effectively for possible identification of prevention and mitigation measures. APANPIRG/36 noted the **Conclusion RASMAG/30-1: New LHD/LLE/LLD Category ‘R’ for GNSS RFI occurrences in Asia and Pacific Region**.

Large Lateral Deviation Reporting Criteria in Asia and Pacific Region

3.3.20 During RASMAG/30 meeting, the proposed revision of LLD reporting criteria in the Asia and Pacific Region was discussed, specifically considering the reduction of the current 10 NM threshold. Two previously proposed approaches: a 5 NM reporting threshold presented by JASMA at RASMAG/28, IP/10 and the comprehensive deviation reporting (all lateral deviations regardless of deviation magnitude) suggested by PARMO at MAWG/12, WP/13.

3.3.21 In conclusion, the adoption of a 5 NM threshold for LLD reporting would align with existing ICAO standards while maintaining operational efficiency. This approach provided a structured evolution of current practices while sufficiently flexible to accommodate future enhancements based on operational experience and regional requirements. Therefore, APANPIRG/36 noted the ***Conclusion RASMAG/30-2: Large Lateral Deviation Reporting Criteria in Asia and Pacific Region.***

ATM and Airspace Safety Deficiencies List

3.3.22 APANPIRG/36 was appraised of the review of the APANPIRG ATM and Airspace Safety Deficiencies List. RASMAG/30 was informed that the deadline for submission of information on reduction of the remaining monitoring burden must reach MAAR and ICAO by 24 October 2025 in order to be processed in time for APANPIRG/36.

3.3.23 Since the RASMAG/30 meeting in July 2025, India's RVSM approval status and annual snapshot have already been confirmed to MAAR. Nepal's traffic sample data (TSD) had been submitted, and the files had been adjusted to the correct format. Malaysia's remaining monitoring burden had decreased from 31% at RASMAG/30 to 28% as of 10 October 2025 and Democratic People's Republic of Korea monitoring burden had decreased from 100% to zero after monitoring was conducted by China RMA. Therefore, these four States would not be recommended for new deficiencies.

3.3.24 Therefore, the updated deficiencies and recommendation to APANPIRG/35, are as follows and presented separately under Agenda Item 4.

- a) To be retained in the Deficiencies list

Safety Reporting Deficiencies

- i) **Afghanistan** (Failure to submit Kabul FIR Large Height Deviation (LHD) data).

Long Term Height Monitoring Requirement Deficiencies

- i) **Afghanistan** (Remaining monitoring burden of 50%, RASMAG/30).
ii) **India** (Remaining monitoring burden of 46%, RASMAG/30).
iii) **Nepal** (Remaining monitoring burden of 45%, RASMAG/30).

- b) Removal of Deficiency:

Long Term Height Monitoring Requirement Deficiencies

- i) **Philippines** (Remaining monitoring burden of 22%, RASMAG/30).

ATS Datalink Deficiencies

- i) **India:** Post implementation monitoring not implemented (insufficient data/evidence). India had submitted the data link performance report for all the three FIRs, including Mumbai FIR in 2025.

c) Add new Deficiency:

i) Nil.

3.3.25 In response to a query, APANPIRG/36 was appraised that past data had shown that implementation of ATS Interfacility Data Communication (AIDC) and surveillance capabilities would be effective strategies to reduce Category E LHD occurrences.

3.3.26 APANPIRG/36 noted the amendment of Ho Chi Minh FIR indicator to VVHM to be utilized for future analysis of Asia/Pacific Region Combined PBCS Monitoring Reports.

RASMAG Chairperson's view on challenges/priorities in 2026

3.3.27 The RASMAG challenges for next work year:

- a) FIT-Asia States/Administrations without formal service arrangements with a CRA, to engage directly with APANPIRG-recognized CRAs to fulfil performance monitoring requirements.
- b) Continue to work towards meeting the Long Term Height Monitoring requirements. In addition, States and Administrations were urged to facilitate smooth transition during any systematic and organizational changes to ensure continued compliance.

Planned Transfer of RVSM Safety Assessment and Monitoring Responsibilities for Hong Kong, China and Macao, China to China RMA (IP/06)

3.3.28 China proposed the transfer of responsibility for RVSM safety assessment and monitoring for the Hong Kong FIR from the Monitoring Agency for Asia Region (MAAR) to China Regional Monitoring Agency (China RMA). Hong Kong FIR was delegated to the MAAR since RVSM was implemented in 2002. Subsequently in April 2008, China RMA was established, authorized by ICAO and approved by the Civil Aviation Administration of China (CAAC) officially with responsibility for ten FIRs: Beijing, Guangzhou, Kunming, Lanzhou, Pyongyang, Sanya, Shanghai, Shenyang, Urumqi, and Wuhan FIRs.

3.3.29 In view of the geographical proximity of the respective airspaces, the shared transfer of control points, the high density of air traffic, recent developments in airspace and traffic flow management, and the established cooperation in various operational domains, the Air Traffic Management Bureau (ATMB) of CAAC, the Civil Aviation Department of Hong Kong, China, and the Civil Aviation Authority of Macao, China had determined that it was appropriate to consolidate RVSM safety assessment and monitoring functions under the China RMA, with implementation to commence following endorsement by RASMAG/31 in 2026.

Agenda Item 3: Performance Framework for Regional Air Navigation Planning and Implementation

3.4 CNS

3.4.1 APANPIRG/36 reviewed the outcomes of the Twenty-Ninth Meeting of the Communications, Navigation and Surveillance Sub-group (CNS SG/29) of APANPIRG held at the ICAO APAC Regional Office, Bangkok, Thailand, from 16-20 June 2025. APANPIRG/36 noted with appreciation the work done and achievements by the CNS SG and the contributory bodies reporting to APANPIRG through the CNS SG, discussed key matters, endorsed the proposed draft conclusion and decision, along with advising on key matters presented in the report of CNS SG/29 meeting and other papers presented under Agenda Item 3.4.

Review of Outcomes of CNS SG/29 - WP/12

3.4.2 The CNS SG/29 meeting report, papers and other resources could be accessed by [this link](#).

3.4.3 APANPIRG/36 noted that several contributory bodies of APANPIRG have held their meetings this year, listed below, which contributed to outcomes to CNS SG/29, and webinars/workshops held to increase awareness and understanding on various topics for the Region to support their planning and implementation.

SN	CNS Meeting/Seminar/Workshop in 2025
1	SIPG WS/1 (14-17 January)
2	WRC27 Workshop (24-25 Feb)
3	FSMP-WG/20 (26 February -7 March)
4	CRV Workshop for PSIDS (3-4 March)
5	CRV OG/13 (5-8 March)
6	Project Team Space-Based VHF (PT-SBV) (11 to 14 March)
7	AMC Workshop (25 March)
8	ACSICG/12 (26-28 March)
9	ICAO APAC Radio Navigation Symposium (7-9 April)
10	SURICG/10 (21-23 April)
11	SRWG/9 (7-9 May)
12	SBAS/GBAS ITF/7 (14-16 May)
13	SWIM Seminar, SWIM TF/10 and SIPG WS/2 (19-30 May)
14	ATMAS TF/6 (2-4 June)
15	CNS SG/29 (16-20 June)
16	ICAO APAC Workshop of CRV and SWIM Experts (01-05 September)
17	SBAS-GBAS Implementation Workshop for Air Space Users (14-16 October)

18	CRV OG/14 (27-31 October)
19	PBNICG/12 (16-17 December)

3.4.4 APANPIRG/36 also noted that CNS SG/29 adopted the following **6** Conclusions and **5** Decisions on technical and operational matters:

Reference	Title of Conclusions/Decisions
1. Conclusion CNS SG/29/02	- Adopt the CANSO Standard of Excellence in Cyber Security for CRV
2. Decision CNS SG/29/03	- Adoption of SOP to update the AMC AFTN/AMHS Routing Table in the Asia/Pacific Region
3. Conclusion CNS SG/29/04	- Educational material to manage the distribution of IWXXM information for COMM experts in the event of primary link failure
4. Conclusion CNS SG/29/05	- Checklist of steps required for operational IWXXM exchange
5. Decision CNS SG/29/08	- Guidance Document for Implementation of SBAS in the Asia/Pacific Region
6. Conclusion CNS SG/29/09	- Workflow for the request and coordination of IC codes with the ICAO APAC Office
7. Decision CNS SG/29/10	- Adoption of the Air Traffic Management Automation System Implementation and Operations Guidance Document Edition 1.5
8. Decision CNS SG/29/11	- Adoption of the AIDC Implementation and Operations Guidance Document (IGD) Edition 2.0
9. Conclusion CNS SG/29/12	- Update the CNS Tables of ICAO APAC e-ANP Vol II
10. Decision CNS SG/29/13	- Adoption of Regional Guidance Material for Addressing Human Factor Issues of ATSEP v2.0
11. Conclusion CNS SG/29/14	- Creation of ANS Information Assurance Task Force (ANSIA TF)

3.4.5 APANPIRG/36 further noted that CNS SG/29 identified **16 action items** related to CNS. Member States were encouraged to follow up on those CNS-related action items.

Aeronautical Fixed Service (AFS)

Outcomes of ACSICG/12

3.4.6 APANPIRG/36 noted that CNS SG/29 reviewed various topics discussed in the AMC Workshop and the Twelfth Meeting of Aeronautical Communication Services Implementation Coordination Group (ACSICG/12) held from 25 to 28 March 2025, updated the AMHS/ATN implementation status in States/Administrations and reviewed the outcomes of the Common aeRonautical Virtual Private Network (CRV) Workshop for PSIDS held from 3-4 March 2025 and the Thirteenth Meeting of the CRV Operations Group of APANPIRG (CRV OG/13) held from 5 to 8 March 2025.

3.4.7 APANPIRG/36 noted the **Conclusion CRV OG/13/01- Standard Operating Procedures (SOP) for Dispute Resolution on CRV Matters**. It was informed that SOP had been incorporated in CRV OG OM v1.4, adopted by CRV OG/13 by **Decision CRV OG/13/02 - Publish the updated APAC CRV Operations Manual**. APANPIRG/36 also noted the **Decision CRV OG/13/03 - Update to the CRV Implementation Plan v2.3**.

3.4.8 APANPIRG/36 noted the latest updates on the planning and implementation status of CRV as follows:

- **Under Operation**

Australia, Bhutan, Cambodia, China, Hong Kong China, Fiji, French Polynesia, India, Indonesia, Japan, Macau China, Malaysia, Maldives, Mongolia, Myanmar, Nepal, New Caledonia, New Zealand, Pakistan, Philippines, PNG, Republic of Korea, Singapore, Sri Lanka, Thailand, USA and Vietnam

- **Under Provisioning**

Cook Islands, Niue and Tonga

- **Not Joined Yet**

Afghanistan, DPRK, Kiribati, Marshal Islands, Micronesia, Nauru, Palau, Solomon Islands, Timor Leste, Tuvalu, Vanuatu, Russia, ICAO MID States

3.4.9 The following **Conclusion** as endorsed by CNS SG/29 was adopted by APANPIRG/36.

Conclusion APANPIRG/36/10 - Implementation of CRV for small Pacific Island and small ANSP in the region using CRV Solution, CRV SLA Package D+		
<p>What: That, the CRV OG recommends the following to assist small Pacific Islands & small ANSPs in APAC in the implementation of CRV:</p> <ul style="list-style-type: none"> a) CRV SLA Package D+ is reliable and addresses lead time for acquiring spares and the CRV Service Provider to import licenses and clearance for customer sites; b) Small Pacific Island and small ANSP in the region to consider using CRV SLA package D+ as the CRV solution to implement CRV for the exchange of voice & AMHS services; c) With a target date to implement CRV by 2025, it was recommended that the CRV OG work closely with the small Pacific Islands, small ANSPs in the region and the CRV Service Provider on a cost-effective CRV solution to implement CRV. 	<p>Expected impact:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input checked="" type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical 	
<p>Why: To facilitate the implementation of CRV for the small Pacific Islands & small ANSPs in the region</p>	<p>Follow-up: <input checked="" type="checkbox"/> Required from States</p>	

When: 26 Nov-25	Status: Adopted by PIRG
Who: <input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other: CRV OG	

3.4.10 APANPIRG/36 noted **Conclusion CNS SG/29/02-** *Adopt the CANSO Standard of Excellence in Cyber Security for CRV*, **Decision CNS SG/29/03-** *Adoption of SOP to update the AMC AFTN/AMHS Routing Table in the Asia/Pacific Region*, **Conclusion CNS SG/29/04-** *Educational material to manage the distribution of IWXXM information for COMM experts in the event of primary link failure*, and **Conclusion CNS SG/29/05-** *Checklist of steps required to operational IWXXM exchange* adopted by CNS SG/29.

3.4.11 APANPIRG/36 noted that ACSICG/12 reviewed and adopted the ATSCG ToR through **Decision ACSICG/12/07-** *Terms of Reference for the AMHS to SWIM Transition Correspondence Group*.

Information Management (IM)

Outcomes of SWIM TF/10

3.4.12 APANPIRG/36 noted CNS SG/29 reviewed the report of the Tenth Meeting of the System Wide Information Management Task Force (SWIM TF/10) held from 20 to 23 May 2025 in the ICAO APAC Regional Office, Bangkok, Thailand.

3.4.13 APANPIRG/36 noted that prior to SWIM TF/10, the ICAO Asia/Pacific System-Wide Information Management (SWIM) Seminar was held in Bangkok on 19 May 2025. The theme of the Seminar was *Establishing SWIM – A Key Enabler for FF-ICE*. The Seminar emphasized the urgency of SWIM implementation ahead of the 2034 sunset of the 2012 flight plan format, with regional efforts targeting 2032.

3.4.14 APANPIRG/36 noted the **Decision SWIM/TF/10/01-** *Revised Terms of Reference of the SWIM Implementation Pioneer Ad-hoc Group*. APANPIRG/36 also noted that SWIM TF/10 discussed and adopted 4 recommendations raised by SIPG on SWIM transition in the APAC region.

3.4.15 Due to the need for clear guidance to States/Administrations on the proposed first version of Common SWIM Information Services, and the Common SWIM Information Services would involve various domains, such as ATM, CNS and MET, etc., under the APANPIRG, the following **Decision** as endorsed by CNS SG/29 was adopted by the APANPIRG/36.

Decision APANPIRG/36/11 - Adoption of APAC Common SWIM Information Services, v1.0		
What:	The first version of APAC Common SWIM Information Services, provided in Appendix A to the Report on Agenda Item 3.4 , is adopted for immediate use by APAC States/Administrations. The set of APAC Common SWIM Information Services and the associated performance of SWIM Technical Infrastructure underpinning these services are not specified to support the provision of aircraft separation.	Expected impact: <input type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical
Why: To assist APAC States/Administrations in planning and implementing their SWIM information services.	Follow-up:	<input type="checkbox"/> Required from States
When: 26-Nov-25	Status:	Adopted by PIRG

Who: ☒ Sub groups ☐ APAC States ☐ ICAO APAC RO ☐ ICAO HQ ☐ Other: MET SG, ATM SG, AOP SG

3.4.16 APANPIRG/36 was presented with the update on FIXM version 4.3 Extension development, and the following **Conclusion** as endorsed by CNS SG/29 was adopted by the APANPIRG/36.

Conclusion APANPIRG/36/12 – Asia/Pacific Regional FIXM version 4.3 Extension	
<p>What: The FIXM version 4.3 Extension described in SWIM/TF/10/WP30 and provided in Appendix B to the Report on Agenda Item 3.4 is:</p> <ul style="list-style-type: none"> a) adopted as the Asia/Pacific FIXM version 4.3 Extension; b) uploaded to the ICAO Asia/Pacific Regional Office website for use by Asia/Pacific Administrations to support cross-border ATFM operation, A-CDM, ATFM/A-CDM integration, and traffic synchronization; and c) presented to the FIXM CCB for review and publication on the FIXM official website. 	<p>Expected impact:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Political / Global <input checked="" type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical
<p>Why: To provide the information exchange model necessary to support cross-border ATFM operation, A-CDM, ATFM/A-CDM integration, and traffic synchronization in the Asia/Pacific Region, in line with <i>Conclusion APANPIRG/35/4</i>.</p>	<p>Follow-up: <input type="checkbox"/> Required from States</p>
<p>When: 26-Nov-25</p>	<p>Status: Adopted by PIRG</p>
<p>Who: <input checked="" type="checkbox"/> Sub groups <input type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other: SWIM TF</p>	

3.4.17 APANPIRG/36 was presented with the current SWIM TF's ToR, the revised SWIM TF's work plan, and the Action List to reflect the latest work status achieved.

Aeronautical Mobile Communications Service and Aeronautical electromagnetic spectrum utilization

Outcomes of WRC-27 Workshop

3.4.18 APANPIRG/36 noted CNS SG/29 reviewed the outcomes of the Workshop on ITU World Radiocommunication Conference 2027 (WRC-27 Workshop) held in the ICAO Asia and Pacific Regional Office, Bangkok, Thailand, from 24 to 25 February 2025.

3.4.19 Noting strong concerns from different participants on the progress of WRC-27 Agenda item 1.7 and its relevant ITU-R studies, the States/Administrations were urged to follow ICAO Assembly Resolution A41-7 to strongly support both the ICAO frequency spectrum strategy and position at WRCs.

3.4.20 APANPIRG/36 was informed of the increasing number of incidents of observed GNSS interference globally and the implications for air navigation safety and security. States/Administrations were encouraged to monitor the issues and adopt a comprehensive and well-coordinated approach to address this issue.

Outcomes of SRWG/9 and Frequency Spectrum-related Issues

3.4.21 APANPIRG/36 noted CNS SG/29 reviewed the report of the Ninth Meeting of the Spectrum Review Working Group (SRWG/9) of APANPIRG held in the ICAO APAC Regional Office, Bangkok, Thailand, from 5 to 7 May 2025.

3.4.22 APANPIRG/36 noted the status of the implementation of the revised APAC VHF COM Frequency Allotment Plan in the Frequency Finder tool, as well as recent enhancements to the Frequency Finder tool, including updated VHF-COM allotments for APAC, new data protection in VHF-COM/NAV and SSR modules, and additional SSR capabilities. The revised FF will be distributed after testing, and States are encouraged to provide feedback.

3.4.23 APANPIRG/36 noted the outcomes of the ICAO APAC Radio Navigation Symposium held in New Delhi, India, from 07-09 April 2025.

3.4.24 APANPIRG/36 noted that CNS SG/29 agreed to defer to the SRWG to study the need for a group under CNS SG to assess and analyse the incidents shared by APAC Member States/Administrations and GNSS and Data Link Disruption Ad-Hoc Group to develop mitigation strategies, considering the global development in this domain.

3.4.25 APANPIRG/36 was reminded about the survey on the readiness of APAC States/Administrations' flight plan processing systems handling SELCAL32 in 2024. It was highlighted that only 13 States/Administrations participated in the survey, which made it difficult to assess the APAC region's readiness. APANPIRG/36 requested APAC States/Administrations that yet to respond to share their readiness with the ICAO APAC Office.

Navigation

Outcomes of GBAS/SBAS ITF/7 Meeting

3.4.26 APANPIRG/36 noted CNS SG/29 reviewed the report of the Seventh Meeting of the ICAO APAC GBAS/SBAS Implementation Task Force (GBAS/SBAS ITF/7) held in Bangkok from 14 to 16 May 2025.

3.4.27 APANPIRG/36 noted that the following proposal was reviewed and supported by CNS SG/29 Meeting and GBAS/SBAS ITF/7 Meeting: *“Keep priority 2 for NAVS-B0/1 GBAS and NAVS-B0/2 SBAS as some APAC States do not have access to such systems, and to change the priorities of NAVS-B0/3 ABAS and NAVS-B0/4 Nav. MON to Priority 1”*. [APANPIRG/36 noted that proposed changes had been incorporated into the Corrigendum of Seamless ANS Plan v4.0 adopted by Decision APANPIRG/36/05.](#)

3.4.28 APANPIRG/36 noted the Decision CNS SG/29/08 - Guidance Document for Implementation of SBAS in the Asia/Pacific Region adopted by CNS SG/29.

Outcomes of Radio Navigation Symposium

3.4.29 APANPIRG/36 noted CNS SG/29 reviewed the outcomes of the ICAO APAC Radio Navigation Symposium held in New Delhi, India, from 07–09 April 2025. The theme of the Symposium was *GNSS RFI: Collectively Bridging Gaps and Shaping the Path Forward*. It was noted that the Symposium highlighted enhancements to the GNSS RFI reporting process through the ITU's Satellite Interference Reporting and Resolution System (SIRRS), aimed at strengthening monitoring and resolution. It also noted the development of new Q-codes, guidance for pilots on interpreting NOTAMs, and the incorporation of related provisions into ICAO documents.

Surveillance

Outcomes of the SURICG/10 Meeting

3.4.30 APANPIRG/36 noted CNS SG/29 reviewed the report of the Tenth Meeting of the Surveillance Implementation Coordination Group (SURICG/10) held in Bangkok, Thailand, from 21 to 23 April 2025.

3.4.31 APANPIRG/36 noted the Conclusion CNS SG/29/09- *Workflow for the request and coordination of IC codes with the ICAO APAC Office*, and the **Decision SURICG/10/03- Adoption of Mode S DAPs Implementation and Operation Guidance Document Edition 6.0**.

Automation

Outcome of ATMAS TF/6 Meeting

3.4.32 APANPIRG/36 noted CNS SG/29 reviewed the report of the Sixth Meeting of the APAC Air Traffic Management Automation System Task Force (APAC ATMAS TF/6) held in Bangkok, Thailand, from 2 to 4 June 2025.

3.4.33 APANPIRG/36 noted the **Decision CNS SG/29/10 - Adoption of the Air Traffic Management Automation System Implementation and Operations Guidance Document Edition 1.5**, and the **Decision CNS SG/29/11 - Adoption of the AIDC Implementation and Operations Guidance Document (IGD) Edition 2.0**.

3.4.34 APANPIRG/36 noted that an ad-hoc group was formed to review and modify the ATMAS TF ToR to accommodate the latest needs of ATMAS TF, such as accommodating FF-ICE and SWIM requirements.

Regional implementation review and updates

Updates in e-ANP Vol II

3.4.35 APANPIRG/36 noted the **Conclusion CNS SG/29/12 - Update the CNS Tables of ICAO APAC e-ANP Vol II**. The States/Administrations are requested to update the required information in ICAO APAC e-ANP Vol II.

Status of CNS Deficiencies

3.4.36 APANPIRG/36 noted that the only outstanding issue was the unreliability of AFS communication between Afghanistan and Pakistan. Pakistan informed that the AFS communication link between Pakistan and Afghanistan remained non-operational due to the absence of a functioning AFS system on the Afghanistan side. Pakistan had fully prepared and ready to activate the link as soon as Afghanistan established the required AFS infrastructure. Afghanistan had not given any tentative timelines. Therefore, it was requested that this deficiency be removed from Pakistan's side.

3.4.37 APANPIRG/36 deliberated on the request of removal of one-party name from the deficiency responsible parties, even if the deficiency was not resolved yet, following the procedure of removal of deficiency defined in APANPIRG Procedural Handbook. APANPIRG/36 agreed that the deficiency related to a reliable AFS link could not be removed from the list until the link is established. However, it was agreed to add a note to the deficiency list provided in **Appendix C to the Report on Agenda Item 3.4**, mentioning the significant efforts made by Pakistan to resolve the deficiency, and no further action could be taken by Pakistan due to the absence of a non-functioning AFS system and air traffic on the Afghanistan side.

Capacity Building, including Human Factors and Air Traffic Safety Electronics Personnel (ATSEPs) related Training

Supervisory and managerial Roles of ATSEP- IFATSEA

3.4.38 APANPIRG/36 noted that IFATSEA presented the work done regarding human factors issues and their countermeasures pertaining to ATSEP while playing supervisory and managerial roles. APANPIRG/36 noted the **Decision CNS SG/29/13 - Adoption of Regional Guidance Material for Addressing Human Factor Issues of ATSEP v2.0**.

Need for the Creation of an APAC Contributory Body for the Management and Implementation of ICAO ANS Cybersecurity Provisions

3.4.39 APANPIRG/36 noted that a new task force, namely the ANS Information Assurance Task Force (ANSIA TF), was established by CNS SG/29 by the **Decision CNS SG/29/14 - Creation of ANS Information Assurance Task Force (ANSIA TF)**. It was informed that the ANSIA TF would prepare the draft Terms of Reference (ToR), its key deliverables, and plan in close coordination with CRV OG, ACSICG, SWIM TF, TFP Secretary, and Information Management Panel Secretary. The first meeting of the ANSIA TF will be conducted from January 28-30, 2026.

CRV II Contract Management Process

3.4.40 APANPIRG/36 was informed that, due to the confidentiality of the CRV contract management process, the report under this agenda was published on the [ICAO APAC CRV Secure portal](#) under the CRV group.

3.4.41 APANPIRG/36 noted that the CRV OG/13 Meeting agreed on the need to organize the Special Session- CRV OG/14 as an In-Person Meeting for 5 days to progress to the next stage of the CRV contract management process from **27-31 October 2025** in Tokyo, Japan. The Special Session- CRV OG/14 discussed the way forward for the CRV contract. CNS SG/29 agreed that the decision will need to be shared at the APANPIRG/36 meeting to ensure the CRV contract management process be completed on time. CNS SG/29 devised the way forward to get endorsements of the decision made by CRV OG/14 from ACSICG and CNS SG.

3.4.42 Following the process, APANPIRG/36 was informed about the decision of the CRV II contact management process by the following **Conclusion** as endorsed by CNS SG/29 was adopted by the APANPIRG/36.

Conclusion APANPIRG/36/13 - Decision of CRV II Contract Management Process	
<p>What: Following the procurement process formulated by CRV OG to choose one of the two options for APAC States/Administrations for the CRV II contract management process, i.e., <i>current CRV contract extension vs initiate the CRV II RFP process</i>:</p> <p>a) States/Administrations agree to extend the current CRV contract for 5 years, which will be referred to as the CRV II Network. After extension, the CRV II contract date would be from 1 January 2029 with expiry on 31 December 2033</p> <p>b) The contract extension for the CRV network will include updated legal, commercial, financial and technical</p>	<p>Expected impact:</p> <p><input type="checkbox"/> Political / Global</p> <p><input type="checkbox"/> Inter-regional</p> <p><input checked="" type="checkbox"/> Economic</p> <p><input type="checkbox"/> Environmental</p> <p><input checked="" type="checkbox"/> Ops/Technical</p>

<p>requirements of the current service provider and CRV network implementation.</p> <p>c) Considering internal procurement timelines of APAC States/Administrations, CRV OG should prepare baseline updates required for the CRV network before 1 April 2027;</p>	
<p>Why:</p> <p>(1) The current CRV contract expires on 31 December 2028;</p> <p>(2) Some APAC States/Administrations, including PSIDS, are in the process of joining CRV, while some States have joined CRV within the last 1-2 years;</p> <p>(3) Transition to the new contract will take at least 1-2 years;</p> <p>(4) The CRV II contract management process executed by CRV OG resulted in the extension of the CRV contract for 5 years.</p>	<p>Follow-up: <input checked="" type="checkbox"/>Required from States</p>
<p>When: 26 Nov 2025</p>	<p>Status: Adopted by PIRG</p>
<p>Who: <input checked="" type="checkbox"/>Sub groups <input checked="" type="checkbox"/>APAC States <input checked="" type="checkbox"/>ICAO APAC RO <input type="checkbox"/>ICAO HQ <input checked="" type="checkbox"/>Other: CRV OG and ACSICG</p>	

Any Other Business

Review of ToR and Action Items

3.4.43 APANPIRG/36 noted that an ad-hoc group was formed to review the ToR of CNS SG. The revised ToR will be presented by the ad-hoc group at the next CNS SG meeting.

CNS Meeting Planning for 2026

3.4.44 APANPIRG/36 noted the tentative schedule for the CNS contributory bodies' meetings to be held in 2026 for meeting information and action. The CNS SG Secretariat would inform Member States/Administrations about the exact dates, mode and venue of the meetings while issuing invitation letters in due course.

CNS Challenges and Priorities in 2026

3.4.45 CNS SG identified the following challenges in the CNS field, which would be the primary area of focus for CNS SG in 2026:

1. Continue coordinating and supporting PSIDS for CRV Implementation
2. Devising baseline Terms and Conditions for CRV II
3. Supporting APAC States/Administrations for the necessary upgradation procedures for the launch of the modern Frequency Finder (FF) Tool, database sanity check and verification and conducting workshops for their training
4. Training for PSDIS to use the FF tool
5. Updating recommendation for GNSS RFI detection and mitigation after incorporating feedback from different subgroups
6. Supporting APAC States/Administrations in mitigating challenges associated with GNSS RFI/spoofing incidents
7. Expediting SWIM Implementation in the APAC region

8. Supporting APAC States/Administrations for FF-ICE R1 Implementation
9. Space-based VHF- interference, frequency band, etc.

— — — — —

Agenda Item 3: Performance Framework for Regional Air Navigation Planning and Implementation

3.5 MET

Meteorology Sub-Group (MET SG/29) Report (WP/13)

History of the meeting

3.5.1 The Meteorology Sub-Group (MET SG) held its Twenty-ninth Meeting (MET SG/29) in Bangkok, Thailand, from 18 to 22 August 2025. The meeting reviewed progress on its work plan, including contributions from the Meteorological Information Exchange Working Group (MET/IE WG) and the Meteorological Requirements Working Group (MET/R WG).

3.5.2 MET SG adopted two Conclusions and seven Decisions, and formulated six Draft Conclusions for consideration by APANPIRG/36.

Election of Chairperson

3.5.3 APANPIRG/36 noted the election of Ms. Paula Acethorp, Chief Meteorological Officer at the Civil Aviation Authority of New Zealand, as Chairperson of MET SG, following Dr. Pak-wai Chan's earlier announcement of his intention to step down.

MET Secretariat Support

3.5.4 APANPIRG/36 noted limited progress on several Secretariat-led MET SG tasks and stressed the urgent need to implement previous APANPIRG actions to strengthen Secretariat capacity for the MET programme, as outlined in Decision 35/11. Enhanced capacity remains critical to effectively meet regional requirements.

Publication of MET Seminar Recordings

3.5.5 Recognising the value of providing wider access to seminar recordings on topics such as space weather services, quantitative volcanic ash concentration information (QVA) services, and volcano observatory notices to aviation (VONA), APANPIRG/36 agreed to facilitate making these recordings available via the ICAO APAC website to ensure accessibility for all relevant personnel across the region. Accordingly, APANPIRG/36 adopted the following Conclusion:

Conclusion APANPIRG/36/14 – Publishing MET Seminar Presentation Recordings	
What: That ICAO be requested to make available the MET Seminar presentation recordings.	Expected impact: <input type="checkbox"/> Political / Global <input type="checkbox"/> Inter -Regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical
Why: To provide Member States and stakeholders with access to valuable technical and operational information shared during the MET Seminars, thereby supporting capacity building, knowledge sharing, and regional collaboration in aeronautical meteorology.	Follow-up: Required from States <input type="checkbox"/>
When: 26-Nov-25	Status: Adopted by PIRG

Who: ☐ Sub Groups ☐ RASG-APAC ☐ APAC States ☒ ICAO APAC RO ☐ ICAO HQ
☐ Other:

3.5.6 APANPIRG/36 noted that MET SG/29 requested the Secretariat to organize a seminar or webinar on the significant changes introduced by Amendment 82 to Annex 3, including the publication of the new PANS-MET, which becomes applicable on 27 November 2025.

Updates to APAC Air Navigation Plan – MET Tables

3.5.7 APANPIRG/36 noted that the Secretariat is processing several proposals for amendment (PfA) to Volumes I and II of the APAC Air Navigation Plan (ANP) to align with current operational requirements and address outstanding actions from previous MET SG and Working Group meetings. Key updates include revised listings for State volcano observatories, updated responsibilities for meteorological watch offices and aerodrome MET services, and changes to VOLMET broadcast requirements. Outdated references, such as those to the SADIS 2G satellite broadcast, have been removed. These proposals incorporate inputs from States and international organizations and are consistent with ICAO global standards.

Removal of Obsolete Information and IWXXM Version Notification

3.5.8 APANPIRG/36 noted that MET SG/29 and MET/IE WG requested ICAO to manage historic guidance material on the ICAO APAC website, ensuring obsolete documents are clearly identified as reference only and not current operational requirements. To support this initiative, APANPIRG/36 adopted the following Conclusion:

Conclusion APANPIRG/36/15 – Management of obsolete planning and implementation guidance documents on the ICAO APAC Office website	
What: That, ICAO take appropriate action to manage (clearly identified as obsolete or remove) the archive of obsolete and historic planning and implementation guidance documents on its website, including those related to MET and other AN fields.	Expected impact: <input type="checkbox"/> Political / Global <input type="checkbox"/> Inter -Regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical
Why: Obsolete OPMET- and ANS-related documents (e.g., FASID Tables) that are accessible on the ICAO APAC Office website are not clearly identified as obsolete and non-operational information for historic reference purposes only. Therefore, they could be understood by readers to represent the current operational requirements.	Follow-up: <input type="checkbox"/> Required from States
When: 26-Nov-25	Status: Adopted by PIRG
Who: <input type="checkbox"/> Sub Groups <input type="checkbox"/> RASG-APAC <input type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other:	

3.5.9 The 2024 SIGMET test revealed that dissemination of SIGMETs in IWXXM format remains limited, and some States are using versions no longer compatible with the current Annex 3 amendment. To help States and stakeholders maintain awareness of valid IWXXM versions and prevent compatibility issues, APANPIRG/36 adopted the following Conclusion:

Conclusion APANPIRG/36/16 – IWXXM update notification process	
What: That, ICAO in coordination with WMO take appropriate action to initiate an IWXXM update notification process for all relevant stakeholders, including IWXXM consumers and system vendors.	Expected impact: <input type="checkbox"/> Political / Global <input type="checkbox"/> Inter -Regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical
Why: WMO develops new versions of IWXXM to affect improvements and support the evolution of ICAO Annex 3 SARPs. To avoid the potential impact on operations due to IWXXM version compatibility issues, States must upgrade the systems for generating, exchanging and consuming IWXXM reports to support the IWXXM version that complies with the latest amendment to Annex 3.	Follow-up: <input type="checkbox"/> Required from States
When: 26-Nov-25	Status: Adopted by PIRG
Who: <input type="checkbox"/> Sub Groups <input type="checkbox"/> RASG-APAC <input type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input checked="" type="checkbox"/> ICAO HQ <input type="checkbox"/> Other:	

APAC Seamless ANS Plan

3.5.10 APANPIRG/36 noted that, through Decision MET SG/29/04 – *MET Information Elements of the APAC Seamless ANS Plan*, MET SG/29 approved work by the MET/R WG to develop a mapping document linking MET services to Priority 1 and 2 elements of the APAC Seamless ANS Plan (ASAP). This document aligns with ASBU AMET elements and is intended to support regional planning, with the aim of inclusion as an appendix to the ASAP (ref. ATFM SG/15 Action 15/9).

Updating MET-Related Documentation

3.5.11 APANPIRG/36 noted that, through Decision MET SG/29/09 – *Approval of Guidance for Updating APAC MET Documentation*, MET SG/29 endorsed the publication of guidance on initiating updates to MET-related regional documents available on the ICAO APAC website. This includes the MET Tables in the APAC Air Navigation Plan, the ROBEX Handbook, and the Asia/Pacific Regional SIGMET Guide.

ROBEX Handbook Updates

3.5.12 APANPIRG/36 noted that MET SG/29 reviewed updates to the ICAO APAC ROBEX Handbook, incorporating MET/IE WG/23 changes. Key revisions include enhanced VONA dissemination guidance, globally aligned header structures, and updated contact details. Hong Kong, China, reorganised METAR/SPECI and TAF bulletins, adding three aerodromes for improved regional exchange. These updates support Annex 3 Amendment 82 and inter-regional consistency. MET SG/29 requested the Secretariat to include these changes, along with proposals from several States, in the next ROBEX Handbook edition, scheduled for September 2025.

Guidance for Tailored Meteorological Information & Services to Support Air Traffic Management (ATM) Operations

3.5.13 APANPIRG/36 noted that, through Decision MET SG/29/10 – *Update the Regional Guidance for Tailored Meteorological Information and Services to Support ATM Operations*, MET

SG/29 endorsed the update and publication of revised guidance prepared by the MET/R WG ad hoc group, incorporating an implementation example from the Republic of Korea.

Updates to Regional SIGMET Guide

3.5.14 APANPIRG/36 noted that, through Decision MET SG/29/11 – *Updates to Regional SIGMET Guide*, MET SG/29 endorsed updates to the Asia/Pacific Regional SIGMET Guide developed by the ad hoc group. The revisions align the Guide with Amendment 82 to ICAO Annex 3 and the newly approved PANS-MET (Doc 10157), effective 27 November 2025. Key changes include updated references, expanded guidance on SIGMET structure and formatting, and new WMO headers for Tropical Cyclone Advisories from TCAC Darwin.

Asia/Pacific Use Cases & User Requirements for SWIM-based MET Information Services Supporting Air Traffic Flow Management (ATFM)

3.5.15 APANPIRG/36 noted that, through Decision MET SG/29/12 – *Updating the APAC Use Cases for SWIM-based Meteorological Information Services Supporting ATFM*, MET SG/29 endorsed updates to the reference document developed by the MET/R WG ad hoc group. The revisions include a new use case based on a SWIM demonstration by Hong Kong, China, along with editorial improvements to clarify the document's purpose and structure.

Report on 2021 ICAO APAC Regional Survey on MET services supporting ATM and ATFM

3.5.16 APANPIRG/36 noted that, through Decision MET SG/29/13 – *Publication of 2021 Survey of State Meteorological Information Supporting Air Traffic Management Report*, MET SG/29 endorsed the MET/R WG proposal to publish the refined survey report, which addresses data sensitivity and clarifies its intended use. The decision also calls for engagement with ATM stakeholders to develop a framework for a follow-up survey.

MET Contributions to SWIM TF for MET SWIM Information Services

3.5.17 APANPIRG/36 noted that, through Decision MET SG/29/14 – *MET Contributions to SWIM TF for MET SWIM Information Services*, MET SG/29 agreed to establish an ad hoc group comprising the Chairs of MET/IE WG, MET/R WG, and MET SG. This group will develop and maintain the meteorological components of the SWIM TF document *Business Functionalities for APAC Common SWIM Meteorological Information Service*.

Sharing of Turbulence Reports

3.5.18 APANPIRG/36 noted MET SG/29's review of DGCA/60 Action Item 60/9 on turbulence reporting. APANPIRG/36 observed that turbulence data is shared within IATA forums but remains inaccessible to meteorological service providers, and many States lack regulatory and procedural frameworks despite Annex 3 requirements. MET SG/29 proposed adding a dedicated agenda item in future meetings to exchange experiences, best practices, and developments on turbulence reporting, aiming to assess how States obtain, produce, and share air-reports and identify regional differences. APANPIRG/36 adopted a related Conclusion:

Conclusion APANPIRG/36/17 – Sharing of Turbulence Reports with Meteorological Service Providers	
What: That States be urged to:	Expected impact:
a) In accordance with Annex 3, share special air-reports, with meteorological service providers, including turbulence	<input checked="" type="checkbox"/> Political / Global <input checked="" type="checkbox"/> Inter -Regional

reports, to support enhanced forecasting and situational awareness; and b) Provide information on the number of special air-reports received each calendar year.	<input checked="" type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical
Why: To address DGCA/60 Action Item 60/9 and improve aviation safety through better access to turbulence data, recognizing the critical role of timely meteorological information in emergency response planning, turbulence forecasting, and regional collaboration—particularly during high-risk weather periods such as the monsoon season.	Follow-up: <input checked="" type="checkbox"/> Required from States
When: 26-Nov-25	Status: Adopted by PIRG
Who: <input type="checkbox"/> Sub Groups <input type="checkbox"/> RASG-APAC <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other:	

Air Navigation Deficiencies

3.5.19 APANPIRG/36 noted MET SG/29's review of IWXXM format implementation for SIGMETs and advisories under Conclusions MET SG/29/06 and 29/07. While no deficiencies were recommended, ICAO APAC was referred to collected data per the Procedural Handbook. The MET Deficiencies ad hoc group analyzed the 2024 SIGMET Test and OPMET Monitoring, finding several States failed to issue required SIGMETs in TAC and IWXXM formats. Twenty-two APAC States were non-compliant with IWXXM SIGMET requirements, and five States failed to provide volcanic ash and tropical cyclone advisories in IWXXM format. Some States reported recent compliance or near-term plans.

3.5.20 Regional analysis identified 154 air navigation deficiencies, including 12 MET-related—83% in Pacific Small Island Developing States. Eight MET deficiencies were classified as “Urgent,” some unresolved for over 14 years, and three for more than 25 years. IATA data shows meteorology contributed to 30% of global fatal accidents over two decades and 50% in APAC. Given limited diversion options for Pacific flights, MET SG/29 stressed urgent action and referenced Chicago Convention Articles 69 and 70 for ICAO intervention and possible financial arrangements.

3.5.21 Rather than establishing a new group as proposed in Draft Conclusion MET SG/29/08, APANPIRG/36 agreed that the Sub-Group Chairs and Secretariat will collaborate to develop practical, sustainable options for resolving long-standing air navigation deficiencies in the Asia/Pacific region. The objective is to accelerate progress on deficiencies—many persisting for over a decade—by promoting coordinated, multi-disciplinary approaches that reflect the interconnected nature of air navigation services and support States in overcoming systemic and resource-related challenges, particularly in Pacific Small Island Developing States (PSIDS). The group will report back to the next meeting with proposals.

3.5.22 MET SG/29 welcomed Solomon Islands' progress on resolving deficiency AP-MET-20, previously related to missing WAFS forecasts in flight briefings. High-level SIGWX charts are now available on the SIMS website, supported by internal forecaster procedures. APANPIRG/36 commended these improvements and noted remaining tasks: confirming user requirements and implementing medium-level SIGWX charts and WAFS upper wind/temperature data. Upon completion, ICAO may consider removing AP-MET-20 from the APANPIRG Air Navigation Deficiency Database.

MET-based Aviation Exercises

3.5.23 APANPIRG/36 noted that MET SG/29 reviewed recent exercises conducted in the Asia/Pacific and European regions involving space weather and volcanic eruption scenarios, acknowledged the outcomes and lessons learned, and encouraged States to consider organising a space weather exercise or workshop for the APAC region, as well as continuing volcanic ash exercises.

Volcano Observatory Notice to Aviation (VONA)

3.5.24 APANPIRG/36 noted MET SG/29's review of initiatives by New Zealand and the United States to enhance VONA dissemination. The U.S. plans for its five State volcano observatories to send VONA messages via a dedicated email tool to the Washington IROG for global distribution. New Zealand introduced its VONA Input System to help South Pacific observatories create and transmit VONA messages in TAC and IWXXM formats through Wellington VAAC's AMHS link. MET SG/29 encouraged continued collaboration and noted an upcoming ICAO update to Doc 9766 for further guidance.

Quantitative Volcanic Ash Concentration Information (QVA) Service

3.5.25 APANPIRG/36 noted information shared by VAAC London on the development of its Quantitative Volcanic Ash concentration information (QVA) service and the availability of presentations from the 2024 QVA Workshop, hosted on the Civil Aviation Authority of New Zealand YouTube channel (<https://www.youtube.com/@CivilAviationAuthorityNZ>).

3.5.26 APAC VAACs are developing QVA services and will represent the first MET/SWIM service implemented in the region. States and users are encouraged to prepare for their use. In particular, civil aviation authorities must understand the advantages and limitations of QVA to enable approval of airline operations through areas of known volcanic ash concentration. Based on this discussion, APANPIRG/36 adopted the following Conclusion:

Conclusion APANPIRG/36/18 – Enabling the use of QVA by airlines	
What: That, State Aviation Authorities are requested to consider and plan for the use of quantitative volcanic ash concentration information (QVA).	Expected impact: <input type="checkbox"/> Political / Global <input checked="" type="checkbox"/> Inter-regional <input checked="" type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical
Why: The provision of QVA by volcanic ash advisory centres (VAACs) is a Recommended Practice in Amendment 82 to Annex 3, applicable from 27 November 2025. Airlines can use QVA for enhanced safety decision-making and improved efficiency, resulting in fewer flight cancellations and diversions.	Follow-up: <input checked="" type="checkbox"/> Required from States
When: 25-Nov-25	Status: Adopted by APANPIRG
Who: <input type="checkbox"/> Subgroups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other:	

Revised Work Plan

3.5.27 APANPIRG/36 noted that MET SG/29 proposed updates to its Terms of Reference (ToR) and work plan to ensure responsiveness to operational priorities and technological developments, supporting safe, efficient, and sustainable air navigation in the region. To enable the timely delivery of

meeting invitations, documentation, and reports, APANPIRG/36 emphasized the urgent need to implement previous actions to strengthen Secretariat capacity for the MET programme, as outlined in Decision 35/11. Enhanced capacity remains essential to meet regional requirements effectively.

Challenges and priorities

3.5.28 The Pacific MET Council, comprising heads of Pacific MET service providers, is supported by the Pacific Island Aviation Weather Services (PIAWS) Panel. This expert panel advises on challenges in meeting ICAO requirements and develops actions to assist States. The ICAO APAC Regional Office and MET SG Chairperson are members of the Panel, which serves as a key link for information exchange between MET SG and Pacific MET services.

3.5.29 Addressing deficiencies remains a priority. Work plans have been implemented, resulting in several resolved deficiencies and others nearing completion. Notable progress includes Solomon Islands' resolution of multiple MET deficiencies and Papua New Guinea's recent achievement in disseminating SIGMETs via AFS, addressing two long-standing SIGMET deficiencies.

3.5.30 Significant efforts also support compliance with evolving ICAO requirements. Examples include IWXXM translation of MET information, provision of VONA creation tools, Australia's investment in MET observation networks, and Hong Kong, China's assistance in harmonizing SIGMETs across Pacific MWOs.

3.5.31 Further initiatives include a volcanic ash exercise planned by New Zealand and Australia for next year, focusing on Papua New Guinea. This aims to demonstrate volcanic ash SIGMET issuance by MWO Port Moresby and volcanic activity reporting by the State volcano observatory, addressing another current deficiency. Papua New Guinea is expected to resolve these deficiencies within the coming year.

3.5.32 APANPIRG/36 noted that ICAO's continued support is essential, particularly in assisting States with long-standing deficiencies to report updates and achieve resolution. This includes cases where deficiencies may no longer apply due to changes in Annex 3 or completed corrective actions not yet reported.

3.5.33 Samoa highlighted the need for assistance in improving personnel awareness of ICAO MET-related obligations. The United States and Australia acknowledged the challenges faced by States in meeting MET service requirements and expressed appreciation for the support provided by the MET SG and the MET SG Chairperson, including on critical issues such as turbulence information.

3.5.34 The Secretariat informed APANPIRG/36 of plans to conduct a dedicated MET Workshop to support Pacific Small Island Developing States (PSIDS). This workshop will be held in conjunction with the MET/R WG meeting hosted by Fiji in 2026.

3.5.35 Priorities for the MET SG include:

- Continued support of States to resolve deficiencies and identification of further opportunities to improve the provision of MET services – perhaps resulting in additional identification of deficiencies.
- Improve the availability and regional exchange of operational meteorological information. This includes the continued improvement of availability of IWXXM form MET information, including delivery of the first MET SWIM service – QVA, by the APAC VAACs.

- Continued strengthening of MET–ATM collaboration, with the emphasis on aligning MET information with user requirements and reducing operational information gaps to enhance regional resilience, situational awareness, and decision-making
- Support of State volcano observatories in sharing information in the aviation system, including plans for a volcanic ash exercise.

— — — — —

Agenda Item 3: Performance Framework for Regional Air Navigation Planning and Implementation

3.6 Other Air Navigation Matters

Air Navigation Driving Sustainability (PPT/03)

3.6.1 The presentation highlighted the critical role of air navigation improvements in achieving ICAO's Long-Term Global Aspirational Goal (LTAG) of net-zero carbon emissions by 2050. While advanced technologies and sustainable fuels are essential, operational measures—such as Continuous Descent and Climb Operations, Performance-Based Navigation (PBN), and Air Traffic Flow Management—offer immediate, cost-effective benefits. These measures reduce fuel burn, improve efficiency, and cut emissions across all flight phases, making them the most widely implemented mitigation strategy in the Asia-Pacific region.

3.6.2 Currently, 96% of submitted State Action Plans in APAC include operational improvements, supported by ICAO tools like the Environmental Benefits Tool, which estimates fuel savings of 2.5–4% or more. These initiatives not only enhance flight performance and reduce delays but also align with national energy and climate goals. Short-term priorities include CDO, CCO, and Flexible Use of Airspace, while mid- and long-term measures focus on ATFM, User Preferred Routes, and advanced surface movement systems.

3.6.3 The Meeting underscored ICAO's recommendation for States to integrate innovative air navigation measures into their State Action Plans, strengthen infrastructure and technology, and expand capacity-building efforts. By leveraging these operational strategies, States can accelerate progress toward LTAG targets and deliver sustainable, socially and economically viable solutions for international aviation.

Tackle to the Sustainable Capacity Building (IP/04)

3.6.4 Japan reported on its recent efforts to support sustainable capacity building in the Asia-Pacific region under ICAO's "No Country Left Behind" initiative. It highlighted long-standing JICA technical cooperation activities, including expert dispatch and training programmes, as well as recent initiatives such as GNSS implementation training for ASEAN and capacity-building programmes for PSIDS. Japan noted that these activities helped strengthen ANS capabilities across the region and encouraged States to share needs and best practices to further enhance cooperative efforts.

— — — — —

Agenda Item 4: Regional Air Navigation Deficiencies

Status of Air Navigation Deficiencies in the Asia/PAC Region (WP/14)

4.1 Under the Terms of Reference, the APANPIRG had been regularly reviewing the status of implementation of the Asia Pacific Air Navigation Plan through its subgroups to identify and address the air navigation deficiencies according to the uniform methodology approved by the ICAO Council. In meeting this objective, APANPIRG facilitated the development and implementation of action plans by States/Administrations to resolve identified deficiencies, where necessary.

Deficiencies in the ATM and Airspace Safety Fields

4.2 The Meeting noted the List of Air Navigation Deficiencies in the ATM and Airspace Safety fields which was reviewed and updated by ATM/SG/13 (25 – 29 August 2025) and RASMAG/30 (14 – 17 July 2025) based on information provided by the concerned States. The Meeting also acknowledged the resolution of existing deficiencies and addition of the new deficiencies to the List, as follows:

a) Removal of Deficiency:

Designation of Restricted Areas Above the Land Areas or Territorial Waters of a State

- Australia

Non-implementation of the Asia/Pacific Air Navigation Plan Vol II, Part I, Section 3 – Specific Regional Requirements for implementation of the Asia/Pacific Search and Rescue (SAR) Plan

- Thailand

Long Term Height Monitoring requirement

- Philippines (Remaining monitoring burden of 22%, RASMAG/30)

ATS Datalink Deficiencies

- India (Data link performance report submitted for all the three FIRs, including Mumbai FIR.(FIT-Asia/15))

b) Addition of Deficiency: NIL

4.3 **Appendix A** to the Report on Agenda Item 4 presented the updated List of Air Navigation Deficiencies in the ATM and Airspace Safety fields.

Deficiencies in the AOP Field

4.4 The Meeting noted the List of Air Navigation Deficiencies in the AOP field which was reviewed and updated by AOP/SG/9 (30 June – 4 July 2025) based on information provided by Bangladesh, Brunei Darussalam, Fiji, Lao PDR, Mongolia, Nauru, Nepal, Philippines, Samoa and Thailand.

4.5 The Meeting acknowledged the resolution of existing deficiencies and addition of the new deficiencies to the List, as follows:

a) Removal of Deficiency:

Aerodrome Certification

- Surat Thani International Airport (VTSB), Thailand (November 2024)
- Diosdado Macapagal International Airport (RPLC), Philippines (January 2025)
- Labuan Airport (WBKL), Malaysia (March 2025)
- Krabi Airport (VTSG), Thailand (July 2025)

Stopbar lights at runway holding positions

- Buyant-Ukhaa International Airport (ZMUB), Mongolia

Apron – Airfield signage

- Buyant-Ukhaa International Airport (ZMUB), Mongolia

b) Addition of Deficiency:

- (i) Approach Light system (HIALS) not meeting Annex 14 Vol. I requirements at Nadi International Airport (NFFN), Fiji
- (ii) Certification of Rota de Sandalo International Airport, Oe-Cusse (WPOC), Timor-Leste

4.6 As requested by Timor-Leste, the corrective action on existing deficiency was updated with the latest information provided by them and description as well as corrective action on new deficiency (Certification of Rota de Sandalo International Airport) was added in the List of Air Navigation Deficiencies in the AOP field.

4.7 **Appendix B** to the Report on Agenda Item 4 presented the updated List of Air Navigation Deficiencies in the AOP field.

Deficiencies in the CNS Field

4.8 The Meeting noted the List of Air Navigation Deficiencies in the CNS field which was reviewed by CNS/SG/29 (16 – 20 June 2025). The Meeting acknowledged CNS/SG/29 did not identify any new deficiencies in the CNS field.

4.9 The Meeting noted Pakistan's request to remove its name from the column "Executing body" under "Corrective Action", but the Meeting decided to retain both Pakistan and Afghanistan as both countries are involved in establishing reliable AFS communication between them. However, a note was added in the column "Executing body" under "Corrective Action" acknowledging Pakistan's efforts to resolve the deficiency by establishing the COM link by joining CRV. Due to the absence of a non-functioning AFS system on the Afghanistan side, the matter could not be progressed further and the existing deficiency remained open.

4.10 **Appendix C** to the Report on Agenda Item 4 presented the updated List of Air Navigation Deficiencies in the CNS field.

Deficiencies in the MET Field

4.11 The Meeting noted the List of Air Navigation Deficiencies in the MET field which was reviewed by MET SG/29 (18 – 22 August 2025). The Meeting acknowledged the 12 deficiencies

concerning MET facilities and services remains open and did not identify any new deficiencies in the MET fields.

4.12 **Appendix D** to the Report on Agenda Item 4 presented the List of Air Navigation Deficiencies in the MET fields.

Update of Information in APANPIRG Air Navigation Deficiencies Database

4.13 The Meeting reviewed the Air Navigation Deficiencies as presented in **Appendices A to D** to the Report on Agenda Item 4. It credited States, including **Australia, India, Malaysia, Mongolia, Pakistan, Philippines and Thailand** for significant progress in resolving their listed deficiencies. In addition, the Meeting requested **Fiji and Timor-Leste** to expeditiously resolve newly identified deficiency. The Meeting endorsed the current list of APANPIRG Air Navigation Deficiencies and adopted the following Conclusion:

Conclusion APANPIRG/36/19 - Update of information in APANPIRG Air Navigation Deficiencies Reporting Form	
<p>That,</p> <p>1) ICAO to update the APANPIRG Air Navigation Deficiency Database to reflect the information as presented in Appendices A - D to the to the Report on Agenda Item 4.</p> <p>2) States/Administrations be urged to:</p> <p>a) establish action plan with defined target dates for resolution of deficiencies, update the status on the corrective action taken and report the progress to the ICAO APAC Office in the Reporting Form of Air Navigation Deficiencies identified in ATM and Airspace Safety, AOP, CNS and MET fields as detailed in Appendices A to D to the Report on Agenda Item 4; and</p> <p>b) update contact details of a Focal Point (Appendix E) to coordinate actions to resolve the Deficiencies.</p>	<p>Expected impact:</p> <p><input type="checkbox"/> Political / Global</p> <p><input type="checkbox"/> Inter-regional</p> <p><input checked="" type="checkbox"/> Economic</p> <p><input type="checkbox"/> Environmental</p> <p><input checked="" type="checkbox"/> Ops/Technical</p>
<p>Why: Official reports providing full details of the corrective actions taken where deficiencies have been resolved be reported to the APANPIRG Sub-groups in 2026.</p>	<p>Follow-up: <input checked="" type="checkbox"/> Required from States</p>
<p>When: 26-Nov-25</p>	<p>Status: Adopted by PIRG</p>
<p>Who: <input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other:</p>	

4.14 The Chairperson acknowledged the progress made by APANPIRG in addressing air navigation deficiencies across the Asia/Pacific region, with many longstanding issues resolved through close coordination. However, a considerable number of deficiencies remain. The Chairperson expressed the belief that if States would actively assist one another and share expertise, we could accelerate the closure of these outstanding issues. All States and Administrations were encouraged to continue developing corrective action plans, report progress using the standardized forms, and keep focal point contact details current to ensure effective collaboration and timely resolution.

4.15 The Meeting encouraged the delegates of the State concerned to inform their respective Director Generals about the outstanding deficiencies and suggested that the resolution of the deficiencies be given priority with the allocation of adequate resources.

Agenda Item 5: Future Work Programme

APANPIRG Work Programme 2026-2026 (WP/15)

5.1 The Meeting agreed with the tentative schedule of meetings for 2026 and 2027, placed in **Appendix** to the Report on Agenda Item 5, and noted that a formal letter of invitation would normally be issued by the Secretariat at least 3 months prior to each event, as well as posted on ICAO APAC website.

5.2 The Meeting also agreed that the next APANPIRG Meeting would be conducted in-person and the Chairperson urged States/Administrations to attend APANPIRG Sub-groups and Contributory Bodies meetings in-person.

— — — — —

Appendix

2026 – MEETINGS, WORKSHOPS AND SEMINARS		
Meetings	Tentative Dates	Venue
SAIOSEACG/5	13 - 16 January	Bangkok, Thailand
ICAO OLS Training	12 – 16 January	Bangkok, Thailand
Inter-Regional Workshop on Enhanced Civil-Military Cooperation in ATM and Flexible Use of Airspace 2026	19 – 23 January	Bangkok, Thailand
Aerodrome SMS incorporating PANS-Aerodromes	26 – 30 January	Bangkok, Thailand
ANSIA TF/1	28 - 30 January	Bangkok, Thailand
SRWG/10	04 – 06 February	Bangkok, Thailand
AP-ADO/TF/7	17 – 20 February	Bangkok, Thailand
Workshop on ACR/PCR Methodology	23 – 27 February (TBC)	Bangkok, Thailand
GANP Workshop	04 – 06 March	Bangkok, Thailand
ACI - ICAO Annex 14 Course	09 – 13 March	Nadi, Fiji
SURSG/5	23 – 24 March	Bangkok, Thailand
SURICG/11	25 – 27 March	Bangkok, Thailand
AP-AA/WG/8 & RODA Workshop	30 March – 3 April	Bangkok, Thailand
ATFM & A-CDM/SG/16	06 - 10 April	Bangkok, Thailand
MET/R WG/15	06 - 10 April	Bangkok, Thailand
ACSICG/13	20 – 24 April	Nadi, Fiji
MET/IE WG/24	20 – 24 April	Nadi, Fiji
APSAR/WG/11	May	Bangkok, Thailand
AP-WHM/WG/8	11 – 15 May	Bangkok, Thailand
GBAS/SBAS ITF/8	12 – 14 May	Bangkok, Thailand
AAITF/21	May	Bangkok, Thailand
SWIM TF/11	25 – 29 May	Bangkok, Thailand
SIPG WS/3	01 – 04 June	Bangkok, Thailand
ATMAS TF/7	02 – 04 June	Bangkok, Thailand
CRV OG/15	15 – 19 June	Bangkok, Thailand
FIT-Asia/16	June	Bangkok, Thailand
RASMAG/31	June / July	Bangkok, Thailand
SCSTFRG/14	June / July	Bangkok, Thailand
CNS SG/30	6 – 10 July	Bangkok, Thailand
AOP/SG/10	13 – 17 July	Bangkok, Thailand
MET SG/30	20 – 24 July	Bangkok, Thailand
AD SMS incorporating PANS-Aerodromes for PSIDS	TBD	TBC
ATM/SG/14	August	Bangkok, Thailand
OLS Workshop for PSIDS	TBD	TBC
PIRG/RASG Coordination Meeting	September	Bangkok, Thailand
61 st DGCA Conference	September	Malaysia
Civil/Military Cooperation in Aerodrome Certification	TBD	Bangkok, Thailand
BOBTFRG/8	November	TBD
APANPIRG/37 and RASG-APAC/16	November - December	Bangkok, Thailand

(Note: Acronyms provided at the end of Appendix)

APANPIRG/36
Appendix to Report on Agenda Item 5

2027 – MEETINGS, WORKSHOPS AND SEMINARS		
Meetings	Tentative Dates	Venue
AP-ADO/TF/8	January/February	Bangkok, Thailand
ANSIA TF/2	January	Bangkok, Thailand
SIPG WS/4	February	Bangkok, Thailand
AP-AAWG/9	March	Bangkok, Thailand
MET/IE WG/25	March / April	Bangkok, Thailand
SURSG/6	March	Bangkok, Thailand
SAIOSEACG/6	March	Bangkok, Thailand
ATFM & A-CDM/SG/17	April	Bangkok, Thailand
ACSICG/14	April	Bangkok, Thailand
SRWG/11	May	Bangkok, Thailand
MET/R WG/16	April / May	Bangkok, Thailand
GBAS/SBAS ITF/9	May	Bangkok, Thailand
SWIM TF/12	May	Bangkok, Thailand
APSAR/WG/12	May	Bangkok, Thailand
AP-WHM/WG/9	May	Bangkok, Thailand
SURICG/12	June	Bangkok, Thailand
ATMAS TF/8	June	Bangkok, Thailand
AAITF/22	June	Bangkok, Thailand
FIT-Asia/17	June / July	Bangkok, Thailand
AOP/SG/11	June / July	Bangkok, Thailand
CRV OG/16	July	Bangkok, Thailand
MET SG/31	July	Bangkok, Thailand
SCSTFRG/15	July	Bangkok, Thailand
PIRG/RASG Coordination Meeting	July / August	Bangkok, Thailand
RASMAG/32	July / August	Bangkok, Thailand
ATM/SG/15	August / September	Bangkok, Thailand
CNS SG/31	September	Bangkok, Thailand
BOBTFRG/9	November	TBD
APANPIRG/38 and RASG-APAC/17	November / December	TBD
62 nd DGCA Conference	TBD	TBD

ACRONYMS

AAITF	Aeronautical Information Services – Aeronautical Information Management Implementation Task Force
ACSICG	Aeronautical Communication Services (ACS) Implementation Co-ordination Group
ANSIA TF	ANS Information Assurance Task Force
AOP/SG	Aerodrome Operations and Planning Sub Group
AP-AA/WG	Asia/Pacific Aerodrome Assistance Working Group
APAC AIG	Asia Pacific Accident Investigation Group
AP-ADO/TF	Asia/Pacific Aerodrome Design and Operations Task Force
APANPIRG	Asia/Pacific Air Navigation Planning and Implementation Group
APSARWG	Asia Pacific Search and Rescue Workgroup
AP-WHM/WG	Asia/Pacific Wildlife Hazard Management Working Group
ATFM/SG& A-CDM/SG	Air Traffic Flow Management and Airport Collaborative Decision Making Steering Group
ATM/SG	Air Traffic Management Sub-Group of APANPIRG
ATMAS TF	ATM Automation System Task Force
BOBTFRG	Bay of Bengal Traffic Flow Review Group
CNS/SG	CNS Sub-Group of APANPIRG
CRV OG	Common aeRonautical Virtual Private Network (VPN) Operations Group
FIT-Asia	FANS Interoperability Team-Asia
FPP SCM	Flight Procedure Programme Steering Committee
GBAS/SBAS ITF	GBAS and SBAS Implementation Task Force
MET/IE WG	Meteorological Information Exchange Working Group (of the MET/SG)
MET/R WG	Meteorological Requirements Working Group (of the MET/SG)
MET SG	Meteorology Sub-Group of APANPIRG
PBNICG	Performance Based Navigation Implementation and Coordination Group
PSIDS	Pacific Small Islands Developing States – Aviation Needs Analysis
RASMAG	Regional Airspace Safety Monitoring Advisory Group of APANPIRG
SAIOSEACG	South Asia, Indian Ocean and Southeast Asia ATM Coordination Group
SCSTFRG	South China Sea Traffic Flow Review Group
SEA/BOB ADS-B WG	South East Asia and Bay of Bengal Sub-regional ADS-B Implementation Working Group
SIPG	SWIM Implementation Pioneer Ad-hoc Group
SRWG	Spectrum Review Working Group
SURICG	Surveillance Implementation Coordination Group
SURSG	Surveillance data sharing Study Group
SWIM TF	System Wide Information Management Task Force

— END —

Agenda Item 6: Any Other Business

Collaboration between RASMAG and SEI WG (WP/18)

6.1 The paper outlined the collaborative efforts between the Regional Airspace Safety Monitoring Advisory Group (RASMAG) and the Safety Enhancement Initiatives Working Group (SEI WG) under Asia Pacific's Regional Aviation Safety Team's (APRAST) to address High-Risk Category (HRC) Mid-Air Collisions (MAC) in the APAC region. This partnership had emerged from discussions during the Twelfth PIRG & RASG Regional Coordination Meeting in 2024, which focused on data sharing and mitigation strategies for Category 'E' Large Height Deviations (LHDs) (coordination errors in the ATC-unit-to-ATC-unit transfer of control responsibility because of human factors issues) recognized as precursors to MAC.

6.2 RASMAG and SEI WG exchanged LHD hotspot data and identified mitigation strategies. APRAST also collaborated with IATA and U.S. Commercial Aviation Safety Team (CAST) to share TCAS Resolution Advisory (RA) hotspot data, complementing LHD data for a holistic risk picture. The collaboration resulted in the publication of RASG-APAC Safety Advisory titled 'Elevated Mid-Air Collision (MAC) Risk in RVSM Airspace', distributed to Civil Aviation Authorities (CAAs), Air Navigation Service Providers (ANSPs), and Regional Monitoring Agencies (RMAs).

6.3 Future collaboration opportunities included leveraging RMA networks for wider dissemination of safety information, refine existing LHD mitigation tools, and consolidate safety bulletins under the RSA mechanism. Additionally, the upcoming Asia Pacific Regional Aviation Safety Plan (AP-RASP) 2026–2028 was set to adopt MAC as a Regional High-Risk Category, with SEI WG proposing targeted actions based on hotspot data analysis to develop focused safety enhancements and advisories.

6.4 Chairperson of SEI WG appreciated the information exchange with RASMAG that would create a more holistic view.

6.5 The Republic of Korea recognized that the strengthened collaboration between RASMAG and the SEI WG represented a significant step forward in enhancing regional safety monitoring efforts, and expressed its support for the continued use of the RSA methodology.

6.6 China opined that monitoring of LHD occurrences included airspace safety assessment involved RMAs and relevant States. The relationship between established processes and risk mechanism required more explanation, furthermore technical and operational details related to LHDs should be discussed at appropriate meetings.

Coordination for Volcano Hayli Gubbi Eruption (PPT/04)

6.7 The Meeting noted the presentation on eruption of volcano Hayli Gubbi located in Ethiopia and the corresponding coordination meeting between ICAO Regional Offices (APAC, ESAF and MID) and IATA (APAC and MID) to discuss the potential impact on international air traffic flows.

6.8 The Chairperson of MET SG then presented the image from VAAC Toulouse on Quantitative Volcanic Ash Concentration information for airspace users.

SADIS Cost Recovery Administrative Group (SCRAG) Representation (Flimsy 1)

6.9 The Meeting noted that the SADIS Agreement, adopted by the ICAO Council in 2000, provided a mechanism for equitable cost-sharing of SADIS operations. Under Article VII, the SADIS Cost Allocation and Recovery Scheme (SCAR) being administered by the SCRAG, which comprised one member from each ICAO region receiving SADIS services, nominated by their respective PIRGs.

6.10 Following China's withdrawal from SADIS, the Asia-Pacific SCRAG position became vacant. To maintain regional representation, the Meeting approved the nomination of Mr. Michael Berechree (Australian Bureau of Meteorology) as the Asia-Pacific SCRAG Member, with full support expressed by the Australian delegation, ahead of the SCRAG/26 meeting scheduled for 3 December 2025.
