

INTERNATIONAL CIVIL AVIATION ORGANISATION



**REPORT OF THE
TWENTY-FOURTH MEETING OF THE
METEOROLOGICAL INFORMATION EXCHANGE WORKING GROUP
(MET/IE WG/24)**

(Nadi, Fiji, 21 – 24 April 2026)

The views expressed in this Report are those of the Meeting
and not the Organisation.

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

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History of the Meeting

1. Dates and venue

1.1. Fiji Airports, in collaboration with the ICAO Asia and Pacific (APAC) Office, hosted the Twenty-Fourth Meeting of the Meteorological Information Exchange Working Group (MET/IE WG/24), in conjunction with the Thirteenth Meeting of the Aeronautical Communication Services Implementation Coordination Group (ACSICG/13), in Nadi, Fiji, from 21 to 24 April 2026.

1.2. A conjoint session of MET/IE WG/24 and ACSICG/13 was conducted on 22 April 2026 to discuss issues of concern to both groups jointly, including readiness of the Air Traffic Services Message Handling System (AMHS) to support disseminating meteorological information in the ICAO Meteorological Information Exchange Model (IWXXM) form.

1.3. In addition, Fiji Airports hosted the ICAO APAC Workshop: *Supporting State Implementation of Meteorological Services*, in conjunction with and preceding MET/IE WG/24, in Nadi, Fiji, on 20 April 2026 (further details: <https://www.icao.int/APAC/meetingdocs?fid=59672>).

1.4. Hosting the meeting and workshop in Nadi, Fiji, enabled greater participation by Pacific States, providing targeted technical support and direct engagement between ICAO experts. It also strengthened regional collaboration by facilitating valuable exchanges between Pacific Island experts and ICAO experts, supporting the development of aeronautical communication services and meteorological information exchange.

2. Attendance

2.1. Forty-five (45) participants attended the MET/IE WG/24 Meeting from sixteen (16) States/Special Administrative Regions and two (2) international organizations, including Australia, Hong Kong China, Macao China, Fiji, India, Indonesia, Japan, Kiribati, New Zealand, Papua New Guinea, Philippines, Republic of Korea, Singapore, Tonga, Tuvalu, Vanuatu, Pacific Aviation Safety Office (PASO), and ICAO. Notably, twenty-five (25) participants from six (6) Pacific Small Island Developing States (PSIDS) attended. The list of participants is in **Appendix A**.

2.2. Eighty-eight (88) participants in total attended the MET/IE WG/24 and ACSICG/13 conjoint session. Further details of the ACSICG/13 attendance are available on the following ICAO website: <https://www.icao.int/APAC/meetingdocs?fid=42537#block-icao-page-title>.

3. Officers and Secretariat

3.1. Mr Tim Hailes, National Manager - Transport Customer Engagement, Australian Bureau of Meteorology, chaired the Meeting. Mr Marco Mang-Hin Kok, Senior Scientific Officer, Hong Kong Observatory, assisted him in the role of Vice Chair of the Meeting. The Secretary for the Meeting was Mr Peter Dunda, Regional Officer Aeronautical Meteorology and Environment, ICAO APAC Office.

4. Language and Documentation

4.1. The working language of the Meeting was English, including all documentation and this report. The Meeting considered 29 Working Papers (WP), 5 Information Papers (IP), 1 Flimsy (FL), and 2 Slide Presentations (SP), including 9 WPs, 3 IPs, and 2 SPs in the conjoint session. The list of papers (WPs, IPs, FLs and SPs) is in **Appendix B**.

5. Outcomes

Draft Conclusions, Draft Decisions and Decisions

5.1. Following established procedures of the APAC Air Navigation Planning and Implementation Regional Group (APANPIRG), the Meeting formulated proposals for action for further consideration and possible adoption by the Meteorology Sub-Group (MET SG) or APANPIRG, within the following definitions:

- a) **Draft Conclusions:** deal with matters that merit directly the attention of States, or on which further action is required to be initiated by the Secretariat;
- b) **Draft Decisions:** relate solely to matters dealing with the internal working arrangements of the APANPIRG and its contributory bodies;
- c) **Decisions:** relate solely to matters dealing with the internal working arrangements of the MET/IE WG.

5.2. The Meeting formulated the following two (2) Draft Conclusions as recorded in the Report on Agenda Items and tabulated in **Appendix C**:

- Draft Conclusion MET/IE WG/24-01 – IWXXM VERSION COMPATIBILITY
- Draft Conclusion MET/IE WG/24-02 – DISSEMINATION OF IWXXM

Action Items

5.3. Additionally, the Meeting agreed to twenty-two (22) new action items for the MET/IE WG as recorded in the Report on Agenda Items and tabulated in **Appendix D**.

— END OF SECTION —

Report on Agenda Items

1. Organisational matters

WP/01 – PROVISIONAL AGENDA (Secretariat)

1.1. This paper presented the provisional agenda for the meeting, outlining the proposed sequence of agenda items. The agenda was structured to address organisational matters, review of follow-up actions from previous meetings, quality control and monitoring of meteorological information exchange, updates to regional guidance material, SWIM- and IWXXM-related matters (including items identified for the conjoint session), review of the Terms of Reference and work plan, arrangements for the next meeting, and any other business.

1.2. The Meeting noted the provisional agenda and agreed to adopt it as presented, comprising the following items:

- Agenda Item 1: Organisational Matters
- Agenda Item 2: Review of Follow-up Actions from Previous Meetings
- Agenda Item 3: Quality Control, Monitoring, and Management of Meteorological Information Exchange
- Agenda Item 4: Guidance Material Related to Meteorological Information Exchange
- Agenda Item 5: Meteorological Information Exchange in a SWIM Environment
- Agenda Item 6: Meteorological Information Exchange in IWXXM Form
- Agenda Item 7: Future Work Program and Terms of Reference
- Agenda Item 8: Next Meeting
- Agenda Item 9: Any Other Business

1.3. Agenda Items 5 & 6 were discussed in the Conjoint session with the ACSICG.

1.4. The Chair suggested that future meetings consider adjusting the order of agenda items by discussing IWXXM-related matters before SWIM-related matters, to better reflect the logical progression toward the aviation SWIM environment. [Action Item MET/IE WG/24-01]

2. Review of Follow-up Actions from Previous Meetings

WP/02 – FOLLOW-UP ACTION FROM MET/IE WG/23 (Secretariat)

2.1. The Secretariat presented WP/02, which reviewed the follow-up status of outcomes from MET/IE WG/23, including two Draft Conclusions, one Decision, and associated action items, as well as unresolved outcomes from earlier meetings. It outlined the purpose of maintaining consolidated lists of Decisions and Actions, reflecting recent updates and removing items agreed as completed, superseded, closed, or redundant, and invited the meeting to review progress and confirm any necessary revisions.

2.2. The meeting noted that the paper did not provide a clear, current status of follow-up for the action items. The Secretariat advised that updates on the status of action items would be prepared during the meeting, drawing on feedback from participants involved in progressing the actions, together with further review of actions taken and discussions on the work of the group during the meeting. The meeting agreed that the paper would be revisited and that the status of the action item follow-up would be reviewed and confirmed before the closing of the meeting.

2.3. In reviewing the consolidated lists, the meeting noted that Draft Conclusion 22-01 on *Availability and Timeliness of TAC and IWXXM Meteorological Information* and Draft

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Conclusion 22-02 on *Review of APAC Region IWXXM Implementation Status/Readiness* had been adopted as MET SG conclusions. The meeting agreed that follow-up on these conclusions would be managed through the MET SG forum.

WP/03 – FOLLOW-UP ACTION FROM MET SG/29 (Secretariat)

2.4. The Secretariat presented WP/03, which reviewed the follow-up status of Draft Conclusions, Conclusions, Decisions, and action items arising from MET SG/29, as well as unresolved outcomes from previous MET SG meetings. It provided consolidated follow-up information in updated lists, highlighting recent changes and removing items agreed as completed, superseded, closed, or redundant. The meeting considered the paper as a status review intended to support effective monitoring and timely follow-up, with final review and endorsement of updates remaining the responsibility of MET SG.

2.5. The meeting noted the proposed updates were subject to confirmation by MET SG. It proposed that unresolved Decision 28-04, concerning the transfer of actions from the long-disbanded MET/S WG to the MET SG, be considered closed. This was noted as a practical reflection of the current arrangements, subject to confirmation from the Secretariat that relevant actions were already being addressed under the MET SG framework.

2.6. The meeting reviewed the follow-up status information and proposed adjustments as necessary to ensure clarity and accuracy. It was agreed that the consolidated lists would be finalised through the MET SG, consistent with the purpose of the paper and established follow-up processes.

WP/04 – FOLLOW-UP ACTION FROM APANPIRG/36 (Secretariat)

2.7. The Secretariat presented WP/04, which reviewed outcomes from APANPIRG/36 that are relevant to the work of the MET SG, MET/IE WG, and MET/R WG. It focused on seven Conclusions requiring follow-up on matters including updates to the APAC ANP, publication of MET seminar materials, management of obsolete guidance documents, the IWXXM update notification process, sharing of turbulence reports, enabling the use of QVA by airlines, and updates to air navigation deficiencies reporting. Five of these Conclusions originated from Draft Conclusions developed by the MET SG and MET/IE WG.

2.8. The paper also noted that APANPIRG/36 did not adopt the proposal to establish a new group to address long-standing air navigation deficiencies. Instead, Sub-Group Chairs and the Secretariat were tasked to work collaboratively to develop practical and sustainable approaches, particularly to support PSIDS, with progress to be reported to APANPIRG/37. An action plan and related supporting material were provided in the appendices.

2.9. The meeting reviewed the follow-up status of the APANPIRG/36 Conclusions as presented. It noted that, while the target date for most Secretariat deliverables—particularly the issuance of State Letters in response to these Conclusions—was February 2026, the Secretariat advised that this work was still in progress. The Secretariat informed the meeting that it was continuing efforts to ensure alignment across Conclusions, consistency with ongoing regional activities, and appropriate coordination with relevant partners, and that the State Letters would be issued as soon as practicable. The meeting noted the information provided

3. Quality Control, Monitoring, and Management of Meteorological Information Exchange

IP/02 – BENEFITS AND OUTCOMES FROM AEROTHAI VISIT TO FIJI AIRPORTS (Fiji)

3.1. The meeting noted the benefits and outcomes of a work visit by Aeronautical Radio of Thailand LTD to Fiji Airports, undertaken in support of ICAO provisions on quality management,

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performance monitoring, and the transition to IWXXM, in the context of the MET/IE WG/24 meeting held in Nadi, Fiji, from 20 to 24 April 2026.

3.2. The meeting noted that the visit focused on reviewing current practices for monitoring performance indices related to meteorological information exchange. Key areas discussed included data collection, analysis, and reporting of OPMET performance indicators, such as the timeliness of METAR and TAF dissemination, data accuracy, compliance monitoring, and monthly performance reporting practices. Opportunities to enhance data tracking and reporting through improved system integration and automation were also noted.

3.3. The meeting further noted Fiji's recent procurement of the UBIMEX/CRONOS system, which is currently in the implementation (ghosting) phase. Upon full implementation, the system is expected to support the generation and exchange of meteorological information in IWXXM format, representing a significant step towards ICAO compliance and continued regional collaboration.

WP/08 – UPDATE OF METEOROLOGICAL REPORTING SCHEDULES IN THE ROBEX MANUAL (Fiji)

3.4. The meeting considered Working Paper WP/08, presented by Fiji, which proposed updates to the ROBEX Handbook to reflect revised meteorological station reporting hours and updated ROBEX focal point information for Fiji. The paper aimed to ensure that information published in the ROBEX Handbook accurately reflected current operational practices and designated points of contact, thereby supporting reliable and well-coordinated OPMET data exchange within the APAC Region.

3.5. The meeting noted that a review of meteorological operations within the Nadi Regional OPMET Centre (ROC) area of responsibility identified differences between published reporting hours and actual operations. In particular, the meeting noted that the availability of aerodrome observations (METAR) for Tongan aerodromes in bulletin SAPS31 was limited to 00–06 UTC and 12–23 UTC daily, whereas the Air Navigation Plan indicated availability for the full 24 hours. It was further noted that Fiji routinely issued aerodrome forecasts (TAF) for these locations with 24-hour validity, which were subsequently cancelled during periods when corresponding METARs were not available. Fiji provided the Secretariat with additional updates concerning a Non-AOP Tongan aerodrome for inclusion in the ROBEX Handbook updates.

3.6. Recognising this discrepancy, the Chair suggested that it would be preferable to remove the affected Tonga locations from the current bulletins and relocate them to other appropriate bulletins that accurately reflect the non-continuous availability of meteorological services. The meeting also noted Fiji's proposal to implement new bulletins SAPS34 NFFN and FTPS34 NFFN from the AIRAC cycle of 11 June 2026 to support NIUE automated observations issuing 30-minute METARs, as detailed in WP/08, Appendix A.

3.7. The Chair proposed that ROC Nadi and Tonga review current TAF validity length periods, including consideration of each TAF, such that shorter duration TAFs may be issued to avoid having to cancel the TAF daily. This approach would ensure better alignment between advertised TAF service hours and operational delivery, reducing the risk of user confusion. **[Action Item MET/IE WG/24-02]**

3.8. In addition, the meeting noted the updated ROBEX focal point information for Fiji to reflect current organisational responsibilities and contact details. The meeting noted the information presented, reviewed the proposed updates to Tables A and B of the ROBEX Handbook, and agreed to further consider the proposed amendments in light of the discussion.

WP/11 – ASIA/PAC INTER-REGIONAL OPMET GATEWAY BACKUP EXERCISE BETWEEN IROG SINGAPORE AND IROG BANGKOK (Singapore)

3.9. The meeting considered Working Paper WP/11, presented by Singapore, which reported on the results of the eighth ASIA/PAC inter-regional OPMET gateway backup exercise between Inter-regional OPMET Gateway (IROG) Singapore and IROG Bangkok. The exercise forms part of established procedures to maintain business continuity for the dissemination of ASIA/PAC OPMET data during unforeseen technical disruptions.

3.10. The meeting noted that the backup arrangements were originally established to ensure continued dissemination of OPMET data to World Area Forecast Centre (WAFC) London and were later expanded to include regular backup exercises. As part of this programme, the eighth real-time backup exercise was conducted on 24 September 2025, simulating prolonged technical difficulties at IROG Bangkok.

3.11. During the exercise, IROG Singapore assumed responsibility for relaying OPMET messages from the Asia Pacific Region to the Middle East and Africa-Indian Ocean Regions between 0200 UTC and 0800 UTC. The meeting noted that a total of 745 traditional alphanumeric code (TAC) OPMET messages were handled, comprising 662 METAR and 83 TAF bulletins, all of which were successfully transmitted, achieving a 100% success rate. Verification of the IWXXM message relay was not conducted, as the relevant links remain pending.

3.12. The meeting noted that the exercise successfully validated the notification, handover, and takeover procedures between the two IROGs.

***WP/24 – ASIA/PAC INTER-REGIONAL OPMET GATEWAY BACK-UP EXERCISE
BETWEEN IROG BANGKOK AND IROG SINGAPORE (Thailand)***

3.13. The meeting considered Working Paper WP/24, presented by Singapore on behalf of Thailand, which reported on the outcomes of the twentieth TAC real-time backup exercise and the first IWXXM real-time backup exercise conducted jointly between IROG Bangkok and IROG Singapore. The objective of the exercises was to evaluate and validate operational continuity arrangements in the event of technical disruptions at IROG Singapore.

3.14. The meeting noted that the backup procedures are based on arrangements established by the OPMET/M TF/3 Meeting and documented in the APAC ROBEX Handbook. In accordance with these procedures, real-time backup exercises are conducted annually to validate notification processes and the handover and takeover of responsibilities between the two IROGs.

3.15. The meeting noted that the exercises were conducted on 30 September 2025 for IWXXM data and 2 October 2025 for TAC data, with prior communication tests carried out before each exercise. During the exercises, IROG Bangkok assumed responsibility for relaying TAC and IWXXM OPMET messages from the Asia/Pacific Region to WAFC London between 0200 UTC and 0800 UTC.

3.16. The meeting noted that all 1,049 TAC and IWXXM bulletins were successfully transmitted, achieving a 100% success rate, and that IROG Bangkok has maintained consistently high performance in recent years.

3.17. The meeting recalled a previous agreed action [23-04] to investigate the impact of an IROG outage at each of the IROGs, including Brisbane, Nadi and Tokyo, and the importance of implementing back-up arrangements.

WP/09 – REVIEW OF WS/LS SIGMET TEST 2025 (Singapore)

3.18. Singapore presented WP/09, reviewing the results of the WS/LS SIGMET Test conducted on 26 November 2025 in accordance with the APAC Regional SIGMET Guide and ICAO SIGMET

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testing procedures. The test assessed the issuance, dissemination, and reception of WS and LS SIGMET messages across the APAC Region.

3.19. The meeting noted strong participation in the WS SIGMET Test, with 26 of 29 States (90 per cent) participating, an improvement from 83% in 2024. A total of 49 WS SIGMET test messages were issued. Reception rates at APAC Regional OPMET Databanks (RODBs) were generally high, at around 90 per cent or above, although lower reception was recorded at WAFC London and none at WAFC Washington. Ongoing issues related to incorrect priority indicators and transmission headers were also noted.

3.20. For the LS SIGMET Test, the meeting noted further improvement, with 14 States (48 per cent) issuing LS SIGMET messages, higher than 34% in 2024. A total of 31 LS SIGMET test messages were issued, and reception rates among participating RODBs ranged from 90 to 100 per cent, indicating continued improvement in IWXXM dissemination.

3.21. In response to the results, and noting limited SIGMET reception, particularly in IWXXM form, in the European (EUR) ROC reception data, the meeting requested the Secretariat to share the results with the ICAO EUR Region and seek assistance in identifying the cause. **[Action Item MET/IE WG/24-03]**

3.22. Papua New Guinea informed the meeting of its bilateral arrangement to issue SIGMET on behalf of Nauru and undertook to follow up on the absence in the test results of a SIGMET test message for FIR Nauru. Singapore also advised that it has reached out to WAFC Washington, but it has not received a response. Singapore will reach out to the WAFC Washington prior to the future SIGMET tests (Ref: Action Item MET/IE WG/23-02).

WP/10 – RESULTS OF SIGMET TESTS 2025 – TC and VA (Japan)

3.23. The meeting considered Working Paper WP/10, presented by Japan, which reported the results of the ASIA/PAC SIGMET tests for tropical cyclone (WC/LY) and volcanic ash (WV/LV) conducted in November 2025. The tests were carried out in accordance with ICAO SIGMET testing procedures to assess the issuance, dissemination, and reception of SIGMET messages in the region.

3.24. The meeting noted that the WC SIGMET test was conducted on 12 November 2025, with Tropical Cyclone Advisory Centres (TCACs) issuing test advisories and MWOs issuing corresponding SIGMET messages, while RODBs and WAFCs recorded and summarised reception. A total of 50 WC test bulletins were expected, of which 38 were received, resulting in an overall availability of 73.1%, slightly lower than in 2024.

3.25. The meeting also noted that the WV SIGMET test was conducted on 19 November 2025. Of the 55 WV test bulletins expected, 51 were received, giving an overall availability of 92.7%, which was an improvement compared with 2024.

3.26. Issues were noted regarding the incorrect use of message priority and WMO headings, incomplete dissemination to all RODBs and WAFCs, and limited readiness among some States to issue SIGMET test messages in IWXXM form. Follow-up actions undertaken included corrective testing for identified transmission issues.

3.27. The meeting noted the results of the SIGMET tests presented in WP/10 and observed continuing improvement in SIGMET issuance in the region; however, significant gaps in IWXXM format availability persist. The meeting reiterated the importance of maintaining strong participation in the regional SIGMET tests, noting that SIGMET test summaries from RODB Brisbane and RODB Nadi were not received. The meeting also noted that follow-up on the proposed inclusion of the United States,

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W AFC Washington, as a monitoring partner in future SIGMET tests remained open (Ref: Action Item MET/IE WG/23-02).

3.28. Noting that some TCAC and Volcanic Ash Advisory Centre (VAAC) Provider States did not issue advisory test messages in IWXXM form, and that some advisories were indicated as not received, the meeting requested the SIGMET test focal point from Japan, in coordination with the Secretariat, to expand the SIGMET test procedures to include investigation of results where advisory messages were not received. **[Action Item MET/IE WG/24-04]**

WP/12 – INVESTIGATION AND RECTIFICATION OF LOW OPMET PERFORMANCE INDICES FOR SINGAPORE (Singapore)

3.29. The meeting considered Working Paper WP/12, presented by Singapore, which reported on the investigation and rectification actions taken to address low OPMET performance indices for METAR availability. The issue was identified during the MET Deficiencies Review presented at MET SG/29, based on the outcomes of the 2024 APAC Regional SIGMET Test and the 2024 TAF and METAR Performance Indices monitoring.

3.30. The meeting noted that Singapore was identified as not meeting the required 95% METAR availability threshold due to a discrepancy affecting two aerodromes, Seletar (WSSL) and Paya Lebar (WSAP). Although both aerodromes issue hourly METAR observations, the ROBEX handbook indicated them as half-hourly reporters. This mismatch resulted in reduced calculated availability and led to the reported potential deficiency.

3.31. The meeting noted that Singapore investigated the issue promptly and implemented rectification measures, including coordination with Malaysia, which oversees METAR bulletin compilation in the region. Seletar and Paya Lebar were re-grouped from SAMS31 to SAMS38, with corresponding changes made to the IWXXM METAR bulletins. These changes took effect on 30 October 2025 at 0600 UTC and were supported by a MET Notification to the APAC region.

3.32. The meeting noted that subsequent monitoring in November 2025 confirmed the issue had been resolved. The meeting was invited to note the information, consider removing Singapore from the list of deficiencies to be considered, and review the proposed updates to the ROBEX Handbook.

3.33. The Secretariat clarified that no States were currently listed with deficiencies related to the dissemination of MET information in IWXXM form. However, the meeting noted that the MET SG had reviewed recent SIGMET test and OPMET monitoring results and identified cases where IWXXM-formatted messages were not available. In this context, and with reference to MET SG/29 Conclusions 29/06 and 29/07, the MET SG has recommended that the ICAO APAC Office review the information provided on the lack of IWXXM implementation for SIGMET and advisory issuance when assessing potential deficiencies. The Secretariat thanked Singapore for the updated information on its OPMET bulletin arrangement, which ensures the ongoing availability of its IWXXM-formatted OPMET messages.

3.34. The meeting noted the proposed updates to the ROBEX Handbook presented in WP/12 and agreed to the Secretariat's inclusion of these updates in the proposed ROBEX Handbook 20th Edition. **[Action Item MET/IE WG/24-05]**

WP/13 – INDONESIA PERFORMANCE INDICES IMPROVEMENT (Indonesia)

3.35. The meeting considered Working Paper WP/13, presented by Indonesia, which outlined the actions taken to improve Indonesia's Performance Indices for OPMET data dissemination, particularly for METAR and TAF, in response to potential deficiencies identified in the 2024 APAC RODB Annual

OPMET Monitoring. Indonesia had been listed among States not meeting the ICAO target of 95% for availability and timeliness.

3.36. The meeting noted that prior to 2025, more than half of Indonesia's aerodromes consistently recorded Performance Indices below 95%, largely due to challenges in integrating data collection, compilation, and dissemination, which were managed by different entities. To address this, BMKG and AirNav Indonesia jointly developed a new integrated OPMET system, linking AWOS directly to a dedicated bulletin compilation server and replacing manual AFTN inputs.

3.37. The meeting noted that system trials were conducted, with the final trial on 25 October 2025, and the system was operationalised on 31 October 2025. During the Annual OPMET Monitoring in November 2025, no significant issues were identified. Performance results showed that 27 Indonesian aerodromes achieved Performance Indices above 95% for METAR and TAF across several RODBs, representing a significant improvement compared to previous years.

3.38. The meeting noted the improvements achieved and was invited to consider removing Indonesia from the list of States with potential MET deficiencies and to discuss any related matters as appropriate. The Secretariat reiterated the clarification above on assessing potential deficiencies related to the dissemination of OPMET, and thanked Indonesia for the updated information on its OPMET performance results, which indicate significant improvement in the ongoing availability of its OPMET messages.

WP/26 – ASIA/PACIFIC PERFORMANCE INDICES (Thailand)

3.39. The Secretariat presented WP/26 on behalf of Thailand, informing the MET/IE WG/24 of the results of Asia/Pacific OPMET monitoring using agreed performance indices. Monitoring covered both TAC and IWXXM data from five RODBs—Bangkok, Brisbane, Nadi, Singapore and Tokyo—for the period 1–30 November 2025. The monitoring was conducted in line with the agreement of previous MET/IE meetings that Asia-Pacific monitoring be undertaken annually in November, using the OPMET Statistics Web Application.

3.40. The results were prepared by RODB Bangkok and are based on the ROBEX Handbook nineteenth edition (February 2026). Performance indices were calculated for both availability and timeliness, applying the updated methodology agreed under MET/SG 28-WP/07. The paper recalls the defined timeliness criteria for METAR and TAF (FT), including the treatment of observations, amendments and corrections. The monitored dataset comprised aerodromes listed in the relevant ROBEX Handbook appendices.

3.41. WP/26, Appendix A (Tables A and B) presents the performance indices measured per aerodrome for TAC and IWXXM respectively. A technical note clarifies that, for November 2025, the IWXXM 2025-2 Availability Index and specific statistics were successfully processed using uploaded data; however, the Timeliness Index for this IWXXM schema version could not be calculated at that time, as timeliness depends on the System Timestamp within the live OPMET Operational System.

3.42. The meeting noted the information presented in WP/26 and thanked Thailand, in its absence, for conducting the monitoring and preparing the results and the working paper, as well as the supporting RODBs. The Secretariat confirmed that the nineteenth edition of the ROBEX Handbook would be published shortly on the ICAO APAC website to improve accessibility for States.

3.43. RODB Singapore noted the NIL availability results for some states such as New Zealand (TAC) and the Republic of Korea (IWXXM). In New Zealand's case, it was identified the wrong recipient address was used and as a result these messages from New Zealand were not extracted during the PI monitoring exercise. RODB Singapore is receiving the Republic of Korea's IWXXM messages operationally and is still investigating the cause for NIL result during the PI monitoring exercise.

3.44. The meeting also noted the positive development with United States APAC OPMET locations now included in the monitoring.

3.45. Noting the low performance indices related to OPMET bulletins from ROC KWBC, the meeting requested IROG Tokyo to coordinate with its corresponding NAM Region IROG to investigate and resolve the issue. **[Action Item MET/IE WG/24-06]**

3.46. Kiribati raised concerns regarding the OPMET monitoring results, which indicated a 0.00 availability for METAR and SPECI from NGTA and PLCH. It was clarified that regular METAR and SPECI are, in fact, provided; however, a communication problem was identified in transmitting the reports to ROC Nadi via the Fiji Meteorological Service. An internal arrangement has now been made to include the ROC Nadi email address in METAR and SPECI reports from NGTA and PLCH until the issue is fully resolved.

3.47. Noting the low performance indices related to RODB Nadi, the meeting conducted a workshop session before the end of the meeting to assist the States concerned with interpreting the results, investigating the issues, and identifying corrective actions. A summary of the key outcomes is provided in **Appendix E** as a reference.

3.48. To support States' effective use of the monitoring results, the meeting also requested Thailand, in its absence, to separate AOP and non-AOP OPMET State Performance Indices in future reporting results. **[Action Item MET/IE WG/24-07]**

3.49. The meeting noted that the monitoring results suggested that timeliness and availability indices appeared to remain coupled and may not yet be calculated independently, as requested in MET/IE WG/23 Action Item 23-05.

3.50. The meeting further noted that the OPMET monitoring results, together with the SIGMET test results discussed under previous agenda items, showed that States were actively investigating identified issues. The meeting encouraged States to continue reviewing the results and to seek clarification where needed, including by engaging with experts during the meeting.

WP/14 – UPDATE ON VONA DISTRIBUTION (New Zealand)

3.51. This paper provides an update on work undertaken by New Zealand, Australia and the United States in response to MET SG/29 Action 21, which requested investigation of appropriate methods for disseminating VONA messages from the APAC Region to ensure global accessibility. It notes that, while Amendment 82 to Annex 3 made the use of the VONA template applicable in November 2025, there is currently no agreed method to ensure VONA availability outside the ICAO region in which it is generated.

3.52. The paper reports on two New Zealand test disseminations of VONA via the AFS in February and March 2026. The traditional alphanumeric code VONA was successfully received by all five APAC RODBs, routed to the EUR Region, and made available on SADIS. An IWXXM test was also disseminated, with an identified technical error that is being rectified, and further testing planned. Future tests are expected to include routing to the Washington Inter-regional OPMET Gateway, with possible availability on WIFS.

3.53. Issues identified include the need for States to notify SADIS and WIFS providers to enable VONA ingestion, consideration of further distribution to users via AFS, and the question of how long VONA should remain available on SADIS, WIFS and RODBs, particularly where volcanoes remain at aviation colour code green or unassigned.

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3.54. The meeting noted the information provided in the paper and discussed the need to review how VONA messages are exchanged within the APAC Region, including the handling of VONA originating from other Regions. In considering how long VONA should be retained by RODBs, the meeting discussed whether VONA, which may be issued only very infrequently but remain valid until a subsequent update, should be retained for extended periods.

3.55. The meeting noted that no other OPMET data type requires long retention periods, with VONA unique in that each message remains in force until replaced, which could be many years under current PANS-MET requirements. The meeting noted that RODBs could retain VONA for periods of up to approximately three months.

3.56. In later discussions at the meeting, it was identified that the same VONA WMO header may be used for multiple volcanoes. It was highlighted that without mitigation the existing approach would not allow previous volcano data to be accessed by the existing ROBD request reply service.

3.57. In response to the invitation by the paper, the meeting requested New Zealand to further investigate the available options for VONA retention and distribution and to report the outcomes to the MET SG for review and appropriate action. **[Action Item MET/IE WG/24-08]**

4. Guidance Material Related to Meteorological Information Exchange¹

WP/05 – ROBEX HANDBOOK UPDATES (Secretariat)

4.1. This paper introduced the APAC ROBEX Handbook, Nineteenth Edition (February 2026), prepared by the Secretariat and provided to the meeting under Agenda Item 4. The Handbook reflects updates previously agreed by MET/IE WG/23 and MET SG/29, together with earlier decisions from MET SG/27 and MET SG/25. The paper was made available during the meeting, and the Nineteenth Edition had not yet been published on the ICAO website, meaning participants had limited time to review the document in advance and develop proposals.

4.2. The updates incorporated in the Nineteenth Edition include amendments to selected METAR and TAF bulletins, the addition of new bulletins, and State-notified and editorial changes. Specific changes include revisions to the ROBEX Handbook, Appendix A and Appendix B bulletins agreed by MET SG/29 and MET/IE WG/23, the introduction of new bulletins, and amendments agreed at earlier MET SG meetings that were subsequently coordinated with the States concerned. The Handbook also includes updates to contact information, amendments to a METNO message format example, and correction of a minor typographical error.

4.3. The paper highlighted that all updates were identified within the Handbook itself, which was attached to the working paper. The meeting was invited to note the information presented and to consider whether further updates to the ROBEX Handbook were required. The meeting noted that any additional updates would be incorporated into the Twentieth Edition, subject to review and endorsement by the MET SG. The meeting was also informed of updates proposed by States², including focal point

¹ Note: the discussion on Agenda Item 4 papers was conducted following the Conjoint session of ACSICG/13 and MET/IE WG/24.

² Hong Kong, China – Appendix I focal point information (email)
Fiji – SAPS/FTPS31, SAPS/FTPS32, SAPS/FTPS33, SAPS/FTPS34, Appendix I focal point information (WP/08)
Indonesia – Appendix I focal point information (WP/18)
Japan – Appendix I focal point information (email)
New Zealand – Appendix I focal point information (email)
Papua New Guinea – Appendix I focal point information (email)
Republic of Korea – Appendix I focal point information (email)

information for the ROBEX Handbook, Appendix I and amendments to specified bulletins, as provided through working papers or to be submitted directly to the Secretariat.

4.4. In response to a question from the meeting, the Chair clarified that the current approach to OPMET monitoring is based on the latest published ROBEX Handbook, supplemented by proposed updates received between publications, to ensure monitoring reflects the most current known exchange arrangements.

4.5. The meeting was informed that Flimsy/01 would propose a more dynamic approach to sharing ROBEX updates, which, if agreed, would streamline access to the latest information for OPMET monitoring.

4.6. Following a related discussion on the notification of changes to OPMET bulletins (issuance of METNO), the meeting requested specific actions to improve the communication of such changes with other regions, similar to what Europe has recently implemented. **[Action Item MET/IE WG/24-09 and Action Item MET/IE WG/24-10]**

WP/15 – INCLUSION OF VONA HEADERS IN ROBEX HANDBOOK (New Zealand)

4.7. New Zealand presented WP/15, proposing the inclusion of a new Appendix in the APAC ROBEX Handbook to catalogue VONA headers used by State Volcano Observatories (SVOs) in the Asia and Pacific Region. It recalled that the Recommended Practice for SVOs to use the VONA template became applicable in November 2025, following Amendment 82 to Annex 3, and noted that guidance on appropriate abbreviated headings for disseminating VONA via the AFS is available through WMO references.

4.8. The paper explained that, for VONA, headers take the form T1T2A1A2ii CCCC, using WM for TAC and LM for IWXXM, with geographic and series designators applied in accordance with existing conventions. As with other ROBEX bulletins, issuance of a new VONA bulletin requires a METNO. It was noted that catalogues of bulletin headers already exist in the ROBEX Handbook and related guidance material, and that such catalogues support common understanding between producers and users, as well as OPMET monitoring.

4.9. For VONA, a dedicated catalogue was proposed to support implementation monitoring, identify where assistance may be required, and highlight States able to share experience. The paper proposed adding a new Appendix to the ROBEX Handbook to list VONA headers in use, together with a minor editorial update to Section 8 to reference this Appendix. The meeting was invited to note the information, invite States with designated SVOs to provide additional header information, and agree to include the proposed new Appendix in the ROBEX Handbook.

4.10. The meeting discussed whether the proposed list of VONA headers should be included in the ROBEX Handbook, the SIGMET Guide, or another location, such as a stand-alone resource. The meeting agreed in principle to the proposal to share a list of VONA headers and to consider this initiative alongside the Flimsy/01 ROBEX Handbook proposal, both of which reflect a move towards managing more dynamic information through separate, stand-alone repositories.

4.11. The meeting supported the proposals in WP/15 and requested New Zealand to further investigate the most appropriate location for the proposed list of VONA headers. It was also noted that we may wish to consider relocating the SIGMET and advisory headers from the SIGMET Guide.

4.12. The meeting also requested the Secretariat to invite States with designated SVOs to provide additional information on VONA headers for inclusion in the proposed table, as available. **[Action Item MET/IE WG/24-11 and Action Item MET/IE WG/24-12]**

WP/25 – ROBEX HANDBOOK UPDATES IN ACCORDANCE WITH THE REVIEW OF THE PERFORMANCE INDICES (PIs) USED IN APAC OPMET MONITORING (Thailand)

4.13. The Secretariat presented WP/25 on behalf of Thailand and the PI ad-hoc group under Agenda Item 4, presented proposed updates to the APAC ROBEX Handbook arising from the review of the performance indices (PIs) used in APAC OPMET monitoring. It recalled that OPMET monitoring in the ASIA/PACIFIC region is conducted annually by the five designated RODBs—Bangkok, Brisbane, Nadi, Singapore and Tokyo—and that the results are reported to the MET/IE WG meeting.

4.14. The paper outlined the background to the review, including earlier MET/IE WG and MET SG actions to examine the PIs, with particular attention to availability and timeliness criteria for METAR and TAF in both TAC and IWXXM forms. It noted agreement to apply a ninety-five per cent threshold to identify possible deficiencies and to consider the proper formation and translation of IWXXM messages. Subsequent meetings identified the need for consequential updates to the ROBEX Handbook, clarification of timeliness definitions, and the use of the latest ROBEX data provided by the Secretariat as the benchmark for monitoring.

4.15. As a result of this work, proposed amendments to the ROBEX Handbook, including updates to OPMET monitoring procedures and definitions in the ROBEX Handbook, Appendix F, were presented in Appendix A to the paper. The meeting was invited to note the information contained in the paper and to discuss any necessary follow-up actions arising from the proposed amendments to the OPMET performance indices used in APAC OPMET monitoring. The meeting noted the information provided.

4.16. The MET/IE WG Chair informed the meeting that follow-up would be undertaken with counterparts in the EUR Region to clarify the reason for the difference between the six-minute and five-minute criteria used in OPMET monitoring procedures. In this context, the meeting requested the Secretariat to submit the proposed amendments to the MET SG for review and possible endorsement, subject to satisfactory resolution of the OPMET monitoring time discrepancy. **[Action Item MET/IE WG/24-13]**

4.17. In reviewing the proposed amendments to the ROBEX Handbook, the meeting noted that the Handbook contains a reference to “no AMD observations” messages, despite there being no ICAO provisions for the dissemination of observation AMD messages. To address this inconsistency, the meeting requested the Secretariat to include the deletion of the “no AMD observations” in the next ROBEX Handbook update proposal for review by the MET SG. **[Action Item MET/IE WG/24-14]**

WP/16 – ŌHAKEA METAR INFORMATION IN ROBEX HANDBOOK (New Zealand)

4.18. New Zealand presented WP/16, providing an update to Appendix A of the APAC ROBEX Handbook to include information on bulletins containing METAR AUTO for Ōhakea Airport. The paper recalled that at MET SG/29 New Zealand advised of planned changes to METAR and TAF bulletins, including the proposed SANZ33 NZKL bulletin. At that time, it had not been confirmed whether this bulletin would contain manual METAR and SPECI during flight information service hours or half-hourly METAR AUTO reports. Following stakeholder consultation, dissemination of METAR AUTO was selected.

4.19. New Zealand reported that the SANZ33 NZKL bulletin commenced on 2 October 2025 and now provides half-hourly METAR AUTO for Ōhakea Airport. The implementation was advised by METNO, together with advice on the new FTNZ33 NZKL bulletin and changes to FT/SANZ32 affecting Dunedin and Hamilton airports.

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4.20. Appendix A to the paper proposed corresponding updates to Appendix A, Table A, of the ROBEX Handbook. New Zealand confirmed that the proposed changes apply to both the SANZ33 and corresponding FTNZ33 bulletins.

4.21. The meeting noted the information provided and agreed to update the ROBEX Handbook accordingly. The meeting requested the Secretariat to include the proposed updates in the next ROBEX Handbook update for review and endorsement by MET SG/30. **[Action Item MET/IE WG/24-15]**

WP/18 – PROPOSALS FOR AMENDMENTS TO THE ROBEX IN INDONESIA (Indonesia)

4.22. Indonesia presented WP/18, proposing amendments to the APAC ROBEX Handbook relating to Jakarta ROC addressing, TAF validity periods, and the ROBEX focal point for Indonesia. The paper noted that the ROBEX Handbook, Nineteenth Edition, contains details of OPMET bulletins and responsibilities of ROCs for METAR, SPECI, and TAF.

4.23. Indonesia proposed updating Appendix A (Table A) and Appendix B (Table B) of the ROBEX Handbook to address inconsistencies in the listed addressing for Jakarta ROC. In line with changes to national communication and data collection systems, the Jakarta ROC address was consolidated to a single designated address, WIIYMYX.

4.24. The paper also proposed amendments to TAF validity periods in FTSR31, changing WABB from 30 hours to 24 hours and WARR from 24 hours to 30 hours, reflecting changes in operational requirements based on flight traffic and airport status. In addition, a change to the ROBEX focal point for Indonesia was proposed due to the retirement of the current officer.

4.25. The meeting noted the information provided and agreed that the proposed amendments should be progressed. Accordingly, the meeting requested the ICAO Secretariat to include the proposed updates in the next ROBEX Handbook update for review at MET SG/30. **[Action Item MET/IE WG/24-16]**

4.26. The meeting also noted the significant update to the AFTN address for ROC Jakarta and discussed the need to ensure that all relevant stakeholders are informed. In particular, the meeting considered the importance of notifying other ROCs and operational units that exchange MET information with ROC Jakarta to ensure continuity of operations. Indonesia informed the meeting that the updated AFTN address has been disseminated to the aeronautical information publication (AIP) in Airac AIP 159 on 15 May 2025. The meeting requested the Secretariat to work with ROC Jakarta to take appropriate steps to disseminate this information. **[Action Item MET/IE WG/24-17]**

FL/01 – ONLINE METAR/TAF TABLES OF ROBEX HANDBOOK (Hong Kong China)

4.27. Hong Kong, China presented Flimsy/01, demonstrating the development of an online spreadsheet to host the METAR and TAF bulletin tables contained in Appendix A and Appendix B of the APAC ROBEX Handbook. The purpose is to enable more timely sharing of the latest METAR/TAF bulletin updates submitted by States and Administrations.

4.28. The paper noted that updates to ROBEX bulletin tables can take many months to be reflected through the formal publication process on the e-documents website. To address this, an online spreadsheet was proposed to provide early visibility of pending updates while official revisions are being processed. A prototype online version of the METAR/TAF tables was demonstrated and made available through a publicly accessible link hosted on Microsoft OneDrive.

4.29. Regarding maintenance, it was suggested that the online spreadsheet could be hosted on the Secretariat's OneDrive, with a small number of volunteer contact points granted editing access to support updates.

4.30. The meeting was invited to note the information, consider the value of the proposed online spreadsheet in improving the maintenance and communication of METAR and TAF bulletin tables, and discuss any follow-up actions. The meeting expressed general support for the proposal and requested Hong Kong, China to further develop the concept in coordination with the Secretariat, with particular attention to change-management aspects, and to present the refined proposal for review and appropriate action by MET SG/30. Further the meeting suggested this task consider whether the spreadsheet includes only pending changes, or fully replace the contents of Appendix A and Appendix B of the APAC ROBEX Handbook. **[Action Item MET/IE WG/24-18]**

4.31. Recalling the earlier discussion on VONA headers in WP/15, the meeting noted the similarities between the initiatives but agreed that they should remain separate at this stage, pending further development and resolution of more specific issues for each proposal.

— Start of Conjoint session of ACSICG/13 and MET/IE WG/24 (22 April 2026) —

5. Meteorological Information Exchange in a SWIM Environment¹

WP/20 – UPDATE MET-SWIM DOCUMENTATION (Australia)

5.1. Australia presented WP/20, providing an update on guidance documents supporting the implementation of meteorological information exchange in a SWIM environment. It informed the meeting of the development of new and updated documentation by the ICAO Meteorological Panel (METP) Working Group on Meteorological Information Exchange (WG-MIE) to support MET-SWIM implementation, including a new Guidelines for MET-SWIM Implementation, an updated MET-SWIM Roadmap, and the deprecation of the MET-SWIM Plan.

5.2. The paper recalled that the provision of meteorological information through information services became a Recommended Practice with the applicability of Amendment 81 to Annex 3 in November 2024. In response, the WG-MIE developed Version 1 of the Guidelines for MET-SWIM Implementation to assist information service providers and consumers in implementing MET-specific information services, aligned with Doc 10203 and complementary to the MET-SWIM Roadmap. These Guidelines were endorsed by METP/6 as informal guidance and made available via the ICAO APAC e-documents portal.

5.3. The paper also reported that Version 3 of the MET-SWIM Roadmap was developed and endorsed by METP/6 to reflect updated capabilities, planning assumptions, and timelines for the transition from TAC exchange to information services.

5.4. The meeting noted the information provided in WP/20 and discussed the updated MET-SWIM documentation, including the revised Roadmap. The meeting noted that the Roadmap indicates a transition to information services as the primary form of MET exchange during the period 2031 to 2036.

5.5. The meeting further noted that this transition aligns with the proposed Amendment 83 to Annex 3, currently under development, which would remove TAC as a standard format requirement for international MET information exchange, with applicability from November 2030. The Chair clarified the ICAO Annex 3 amendment process and the expected timeframes for these changes.

WP/27 – GUIDANCE MATERIAL TO ASSIST APANPIRG SUBSIDIARY GROUPS IN REVIEWING AND UPDATING THE LIST OF APAC COMMON SWIM INFORMATION

¹ Note: The discussion on WP/20 and WP/27 was conducted after IP/07 (from ACSICG/13) and before WP/21.

SERVICES (SWIM TF)

5.6. The SWIM Task Force presented WP/27, requesting APANPIRG Subsidiary Groups to review and update or refine the list of APAC Common SWIM Information Services planned for future regional implementation. It recalled that the First Version of the Business Functionality for APAC Common SWIM Information Services was adopted by APANPIRG/36 in November 2025, following significant contributions from Subsidiary Groups. However, differing levels of detail across information domains were noted.

5.7. To address this, the paper presented guidance material developed under SWIM TF Task 6 to illustrate the type and level of detail required for each information service, including business functionality, service description, information exchanged, exchange model, message exchange pattern, and priority. A worked example was provided for illustration only. Subsidiary Groups were invited to use the guidance to review the draft Second Version of the document and submit proposed updates using track changes for consolidation by SWIM TF.

5.8. The paper summarised feedback from FF-ICE/4, SURSG/5, SURICG/11, and ATFM & A-CDM/SG/16, noting agreement on several improvements and no proposed changes in some domains. MET/IE WG/24 was specifically invited to review and update the MET-related entries in WP/27, Appendix B.

5.9. The meeting noted the information presented in WP/27 and reviewed the guidance material provided by the SWIM TF. During the discussion, the meeting suggested that the SWIM TF may wish to consider addressing possible options for push “pub-sub” services and on-demand “request/reply” services as part of future refinement of the document.

5.10. The meeting agreed to consider the document as a standing agenda item for future MET/IE WG meetings to support continued review and refinement of the MET-related entries. **[Action Item MET/IE WG/24-19]**

6. Meteorological Information Exchange in IWXXM Form

WP/23 – LATEST STATUS OF IWXXM (Hong Kong China)

6.1. Hong Kong, China presented WP/23, providing an update on the latest status of the ICAO Meteorological Information Exchange Model (IWXXM) and highlighted relevant decisions of the ICAO METP WG-MIE concerning operational use of IWXXM versions to ensure interoperability among producers and consumers.

6.2. The paper informed the meeting that the WMO Task Team on Aviation Data published IWXXM 2025-2 in November 2025 to support changes introduced by Amendment 82 to Annex 3 and PANS-MET. It summarised the major updates in IWXXM 2025-2, including the introduction of the Quantitative Volcanic Ash Concentration Information and VONA packages, updates to METAR/SPECI, Volcanic Ash Advisory and Space Weather Advisory packages, enhancements to allow unlimited RVR and temperature in tenths of a degree, changes to the Meteorological Feature and WAFS Significant Weather Forecast packages, and documentation updates to reflect PANS-MET.

6.3. The paper highlighted that continued use of outdated IWXXM versions may result in non-compliance with applicable ICAO provisions and increased operational complexity for consumers. It recalled the WG-MIE decision that, following release of IWXXM 2025-2, only IWXXM 2023-1 and later versions should be used for operational exchange, and that future versions should be managed as independent packages. A compatibility table reflecting this decision was included.

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6.4. The meeting noted the information presented in WP/23 and discussed the implications of the WG-MIE decision on the operational use of IWXXM versions. The meeting noted that the METP decision will be contained in guidance and therefore represents a recommendation to regions and States and does not have the status of an international mandate; within States, responsibility for compliance with ICAO IWXXM version recommendations rests with designated regulators. The meeting further noted that, while Annex 3 requires States to disseminate MET information in IWXXM form, it does not currently specify IWXXM versions, whereas IWXXM implementation guidance provides information on version compatibility with ICAO Annex 3 Amendments.

6.5. During the discussion on IWXXM implementation and existing gaps, Tonga highlighted the challenges faced by small MET service providers in the Pacific Islands in building and sustaining the capacity and resources needed to meet IWXXM requirements, noting that these challenges are expected to increase. In response, the meeting requested the Secretariat and Tonga to coordinate an assessment of IWXXM implementation gaps and related assistance needs for Tonga and other PSIDS to support sustainable compliance with the IWXXM SARPs. **[Action Item MET/IE WG/24-20]**

6.6. To address the issues raised in WP/23 concerning IWXXM version recommendations and compatibility, the meeting formulated a Draft Conclusion for further consideration:

Draft Conclusion MET/IE WG/24-01 – IWXXM VERSION COMPATIBILITY	
What: That, States are requested to ensure that MET service providers, air navigation service providers (ANSPs), airlines and other end users do the following: a) make the necessary system upgrades to support the IWXXM version, which complies with the latest amendment to Annex 3 as stated in the IWXXM compatibility table*; and b) prepare for future system upgrades to support future IWXXM versions driven by further amendments to Annex 3. *Link to the IWXXM capability table: https://wmo.int/iwxxm	Expected impact: ☐ Political / Global ☐ Inter -Regional ☒ Economic ☐ Environmental ☒ Ops/Technical
Why: Many States are exchanging IWXXM OPMET data in older versions of IWXXM which are no longer compliant with Amendments 82 to ICAO Annex 3. 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: ☒ Required from States
When: As soon as practicable	Status: Draft to be adopted by MET SG
Who: ☒ Sub Groups ☐ RASG-APAC ☒ APAC States ☒ ICAO APAC RO ☐ ICAO HQ ☐ Other: XXXX	

WP/22 – STATUS OF APAC IWXXM MESSAGE EXCHANGE OVER AMHS (Australia and Hong Kong, China)

6.7. This paper, presented by Australia and Hong Kong, China under Agenda Item 6, reviewed the latest status of exchange of IWXXM-formatted meteorological information over AMHS in the APAC Region, based on data recorded in the Online Register of APAC IWXXM Exchange Status. The

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register enables ROCs and NOCs to share up-to-date information on readiness to receive IWXXM, AMHS capabilities, dissemination destinations, and IWXXM data generation.

6.8. The review showed that, as of April 2026, implementation remained uneven across the region. Of the seventeen ROCs, only ten were routinely disseminating IWXXM messages and seven were not able to disseminate IWXXM messages over AMHS. Most NOCs were not yet capable of receiving IWXXM, and some States could generate IWXXM data but lacked AMHS with the required FTBP and IHE to disseminate messages internationally. Inter-regional IWXXM exchange had been implemented only between APAC and EUR Regions via IROG Singapore and IROG London.

6.9. The paper noted that insufficient communication capability continues to hinder global availability of IWXXM and delays the transition from TAC, which is proposed to cease international distribution from 2030. States were reminded to expedite implementation of the necessary AMHS services and to provide readiness updates to ICAO.

6.10. The meeting noted the progress reported, encouraged States to provide timely updates to the online register, and discussed ways to further support and expedite regional and inter-regional implementation of IWXXM exchange over AMHS. In response to the invitation by the paper, the meeting recalled the previously agreed action on a notification method for enhanced ROC AMHS capability (Ref: MET/IE WG/23 Action Item 23-16) and was informed that this action had been implemented through manual email notifications to ROCs when updates to the register are received and accepted, rather than through an automated process. Based on the above discussion, the meeting formulated a targeted Draft Conclusion:

Draft Conclusion MET/IE WG/24-02 – DISSEMINATION OF IWXXM	
What: That: a) APAC ROCs and IROGs, namely Bangkok, Brisbane, Colombo, Delhi, Karachi, Kolkata, Mumbai, Nadi, and Tokyo, expedite the implementation of network circuits and communication services necessary to enable the required regional global dissemination of meteorological information in the ICAO Meteorological Information Exchange Model (IWXXM) form including support for the Air Traffic Services Message Handling System (AMHS) with File Transfer Body Part (FTBP) and Interpersonal Message Heading Extension (IHE), and backup paths for redundancy purposes; and b) To support intra-regional exchange of IWXXM, the IROGs establish operational IWXXM exchange with IROGs in the ICAO AFI, MID, NAM and SAM Regions.	Expected impact: ☐ Political / Global ☒ Inter -Regional ☒ Economic ☐ Environmental ☒ Ops/Technical
Why: Following the provisions of ICAO Annex 3– Meteorological Service for International Air Navigation (applicable 2020), States shall ensure that certain meteorological information is disseminated to users in the IWXXM form. However, without suitable configured communication networks to support the necessary intra- and inter-regional exchange of IWXXM messages, global dissemination of meteorological information in IWXXM form will not be possible. Consequently, the migration of user and supplier systems from meteorological information in the traditional alphanumeric code (TAC) form to the	Follow-up: ☒ Required from States

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IWXXM form, as required in Amendment 79 to Annex 3 (applicable Nov 2020), will remain inhibited.	
When: As soon as practicable	Status: Draft to be adopted by MET SG
Who: ☒ Sub Groups ☐ RASG-APAC ☒ APAC States ☒ ICAO APAC RO ☐ ICAO HQ ☐ Other: XXXX	

ACSICG/13 – WP/10 – REVIEW OF ASIA AND PACIFIC REGION IWXXM IMPLEMENTATION STATUS/ READINESS (Secretariat)

6.11. The paper presented the IWXXM implementation status and the Asia/Pacific Region's readiness to fully implement IWXXM data exchange and encouraged States/Administrations to review and update the IWXXM implementation status as required.

6.12. To provide a clearer overview of the implementation status, the ICAO Secretariat created a new table using data from the previous AMHS Readiness Table for Supporting IWXXM Traffic, information received by email, and AMHS Routing Directory Tables from the ATS Messaging Management Center (AMC) as of March 2026.

6.13. It was observed that the table contained several columns with information that may not require ongoing monitoring. The meeting requested clarification of the terminology within the table to support its update so that only essential data is collected, a task which was accomplished during the Meeting.

6.14. There was a request to clarify the two AMHS message sizes referenced in this sentence:

*“AMHS with File Transfer Body Part (FTBP) and Interpersonal Messages Heading Extension (IHE), which can support the exchange of AMHS message size of **a minimum of 2MB and a maximum of 4MB for FTBP.**”*

6.15. The MET/IE WG Chair provided an overview of the historical context behind the introduction of size numbers for IWXXM messages. Additionally, it was shared that the size number of up to 4 MB (including FTBP) can be found in the [‘GUIDELINES FOR THE IMPLEMENTATION OF OPMET DATA EXCHANGE USING IWXXM, Fifth EDITION – October 2023’](#). The following excerpt of the text is provided for reference:

*The number of FTBPs and the **maximum message size are subject to the AMHS specifications and recipients User Capabilities.** It would be highly desirable to have **a common agreed maximum limit size for AMHS messages between all ICAO Regions.** A total size of AMHS message (including FTBP) **up to 4MB should be considered**, as already defined in some Regions. The available network path between the Originator and Recipient must be completely AMHS with FTBP support for successful message delivery. **It does not necessarily require each COM Centre in the path to operate AMHS in Extended Services to relay an AMHS message with FTBP.** To ensure that delivery is within the capabilities of the recipient, **it is advised that the User Capabilities are coordinated before the establishment of regular communications.** In some Regions, this information may be available through Directory Services (X.500/EDS). The available bandwidth for each ‘hop’ in the network should be considered by COM Centres when switching to AMHS FTBP operations.*

6.16. Based on this additional information, the ACSICG/13 Meeting modified the format of the table and reviewed and updated the new Table. The duly filled table is provided in Appendix C to the ACSICG/13 Meeting Report.

WP/17 – IWXXM IMPLEMENTATION PROGRESS IN INDONESIA (Indonesia)

6.17. Indonesia presented WP/17, reported progress in the development and implementation of IWXXM in Indonesia and outlined recent results from international exchange and testing activities. It recalled that international exchange of IWXXM-formatted OPMET information has been standard practice under Annex 3 since November 2020, and that Indonesia had previously been identified as having potential deficiencies in IWXXM implementation based on earlier SIGMET monitoring results.

6.18. The paper described the development of an in-house IWXXM generator by Indonesia since 2019 and subsequent upgrades to IWXXM 2025-2. Due to limitations of the existing AMHS, Indonesia coordinated with the Hong Kong Observatory to route IWXXM data for validation and dissemination. Initial version incompatibility was resolved in January 2026, after which IWXXM data was confirmed as valid by the Bangkok RODB and has continued to be disseminated via HKO. The paper also acknowledged support from the Hong Kong Observatory and Meteorological Service Singapore in facilitating IWXXM exchange and data conversion.

6.19. The paper further reported Indonesia's participation in the 2025 SIGMET Test, during which SIGMET messages were issued in IWXXM format and disseminated through the HKO AMHS network. Based on these developments, Indonesia proposed that it be removed from the list of APAC States with potential deficiencies in IWXXM implementation.

6.20. The meeting noted the information provided and considered the proposal, as invited by the paper. The Secretariat clarified that no States were currently listed with deficiencies related to the dissemination of MET information in IWXXM form. However, the meeting was informed that the MET SG had reviewed recent SIGMET test and OPMET monitoring results and had identified cases where IWXXM-formatted messages were not available. In this context, and with reference to MET SG/29 Conclusions 29/06 and 29/07, the MET SG has recommended that the ICAO APAC Office review information related to the lack of IWXXM implementation for SIGMET and advisory issuance when assessing potential deficiencies. The Secretariat thanked Indonesia for the updated information on its IWXXM validation and dissemination arrangements, which ensure the continued availability of its IWXXM-formatted SIGMET messages.

IP/03 – STATUS AND PLANS FOR THE IMPLEMENTATION OF OPMET DATA EXCHANGE USING IWXXM IN THE REPUBLIC OF KOREA (Republic of Korea)

6.21. Republic of Korea presented IP/03, describing the current status and future plans for implementation of OPMET data exchange using IWXXM. It outlined the role of the Aviation Meteorological Office (AMO) of the Korea Meteorological Administration, acting as both the National and Regional OPMET Centre, in cooperation with the Ministry of Land, Infrastructure and Transport.

6.22. The paper reported that IWXXM version 2023-1 was developed by the AMO in December 2023, followed by extensive integrity checks through February 2025, supported by the Hong Kong Observatory's validation tool. IWXXM data has been provided via an open API service since April 2016, with operational provision of IWXXM 2023-1 through the KMA API Hub commencing in August 2025.

6.23. It further noted progress in IWXXM exchange through AMHS, including completion of international AMHS connections with China and Japan, implementation of a pilot AMHS system in September 2025, exchange testing with Japan and China, and real-time transmission of IWXXM-formatted OPMET data to multiple RODBs during the November 2025 monitoring period.

6.24. The paper outlined future plans, including upgrading to IWXXM 2025-2 in 2026, further enhancement of the pilot AMHS system, expansion of IWXXM exchange to additional States, and transition to a fully operational AMHS system by 2028.

6.25. The meeting noted the information provided and thanked the Republic of Korea for sharing its progress and plans, which enhance the Region's understanding of the current and planned status of IWXXM implementation for MET information exchange.

ACSICG/13 – IP/04 – INDONESIA AMHS UPGRADE TO SUPPORT IWXXM (Indonesia)

6.26. Indonesia presented the progress of Indonesia in upgrading its AMHS to support the ROC Jakarta in exchanging IWXXM with RODBs and designated ROCs.

6.27. The Meeting was informed that Indonesia has developed an in-house IWXXM 2025-2 generator but cannot disseminate products to RODBs due to the current AMHS size limitations. To resolve this, Indonesia is upgrading the AMHS system as part of the modernization of the ATM Automation System to support files up to 4.0 MB (including FTBP). During the ICAO monitoring period in November 2025, Indonesia mitigated the issue by collaborating with the Hong Kong Observatory (HKO) to successfully route data submissions via HKO's AMHS network. The Meeting was informed that the AMHS upgrade is underway and targeted for full implementation in June 2026, with a structured trial and testing plan scheduled through Q3-Q4 2026 involving AirNav Indonesia and BMKG.

ACSICG/13 – IP07 – UPDATES ON FIJI'S AMHS SYSTEM UPGRADE (Fiji)

6.28. Fiji presented the progress of upgrading its AMHS to support both the Basic ATS services and the Extended ATS services in the exchange of file attachment using File Transfer Body Parts (FTBP) to support the exchange of IWXXM messages. The Meeting noted that Fiji Airports hosted the Nadi RODB, one of the 5 RODB in the APAC region, and that AMHS was required to support the exchange of the ROBEX IWXXM bulletin with other RODB, as mandated by ICAO in 2020. To support this requirement, the new AMHS can handle files up to 4.0 MB, including FTBP.

6.29. The Meeting was informed that Fiji's new AMHS & IWXXM system is currently undergoing its commissioning process and plans to commission the new system in May 2026. With the commissioning of the new system, the Nadi RODB will be capable of supporting the exchange of the IWXXM ROBEX bulletin with the 4 other RODBs in the APAC region and of complying with the ICAO mandate.

WP/21 – SECURE IWXXM EXCHANGE IN THE ABSENCE OF AMHS/FTBP (Australia)

6.30. Australia presented WP/21, addressing issues affecting the exchange of IWXXM where AMHS with File Transfer Body Part (FTBP) capability is not available. It recalled that the IWXXM Guidelines specify the use of AMHS/FTBP for regional and inter-regional exchange of IWXXM, in accordance with ICAO Annex 3. However, it noted that while some States are generating IWXXM, they face difficulties accessing networks with the required protocols to support such exchange.

6.31. The paper explained that regional exchange of IWXXM depends on both messaging capabilities, including AMHS with FTBP at Inter-Regional Gateways and ROCs, and the availability of meteorological information in IWXXM form. In practice, some States lack AMHS/FTBP connections between their NOCs and ROCs, preventing onward regional and global dissemination. To address this as an interim measure, the ICAO METP WG-MIE discussed and endorsed the use of other secure communication protocols for exchanging IWXXM between NOCs and ROCs, or within a State, where mutually agreed through bilateral arrangements. ROCs, however, are not required to support such alternatives.

6.32. The paper highlighted WG-MIE Decision MIE/13-04, which agreed that the IWXXM Guidelines should include support for secure transfer of IWXXM via such protocols where mutually agreed, with this update expected in a future revision of the Guidelines.

6.33. The meeting noted the information presented in WP/21 and considered whether updates to the ROBEX Handbook were required to support short-term use of other secure protocols for IWXXM exchange. The Chair clarified that a future revision of the IWXXM Guidelines is likely to be non-prescriptive regarding the specific protocols to support secure transfer of IWXXM between NOCs and ROCs, noting that such arrangements would need to be mutually agreed, and that the intent remains for transfer and processing to be fully automated.

6.34. In response to a question from Cambodia regarding feasible solutions in the absence of suitable AMHS/FTBP, the meeting reviewed¹ the existing ROBEX Scheme and discussed the need to consider alternative pathways to improve redundancy and mitigate operational risks. In this context, the meeting considered whether the CRV could provide an effective alternative virtual pathway as part of a business continuity approach to connect to a State with the required AMHS/FTBP capability.

6.35. The meeting noted that the ROBEX Handbook currently references the IWXXM Guidelines and agreed that this was sufficient at present. Further to the issue raised by Cambodia, the meeting requested the MET/IE WG Chair and the Secretariat to coordinate the recruitment of a suitable MET expert/s to support the ACSICG small task group in investigating the feasibility of alternative pathways for MET information exchange within the context of the ROBEX Scheme. **[Action Item MET/IE WG/24-21]**

WP/19 – CESSATION OF THE USE OF LEGACY TEXT-BASED FORMAT - TRADITIONAL ALPHANUMERIC CODE (TAC) (Hong Kong China)

6.36. Hong Kong, China presented WP/19, highlighting the planned cessation of the Traditional Alphanumeric Code (TAC) for international meteorological information exchange and outlined potential impacts on existing systems and services that rely on TAC. TAC has long been the standard format for OPMET products such as METAR, SPECI, TAF and SIGMET, and remains the sole data source for aeronautical broadcasting services including VOLMET and D-VOLMET.

6.37. The paper recalled that METP/6 recommended amendments to Annex 3 and PANS-MET to support the removal of the requirement to internationally exchange legacy text-based formats, in November 2030 and applicability embedded through Amendment 83 to Annex 3 and Amendment 1 to PANS-MET. While the transition to IWXXM aligns with the broader SWIM implementation and digital data exchange, it raises specific challenges for services and systems designed exclusively for TAC.

6.38. It was noted that current VOLMET and D-VOLMET systems cannot process IWXXM data. Without suitable upgrades or conversion mechanisms, the cessation of TAC would remove the primary data source for these critical broadcasting services. The paper further noted the absence of ICAO guidance on adapting broadcasting services for TAC cessation.

6.39. The meeting noted the information presented in WP/19 and acknowledged the current lack of ICAO guidance on how systems such as VOLMET would be managed following the unavailability of globally exchanged TAC. The meeting considered urging ICAO to develop relevant guidance, in coordination with stakeholders, to support an orderly transition and avoid disruption to existing aeronautical broadcasting services.

6.40. The meeting sought to clarify the implications of TAC no longer being an ICAO standard MET information exchange format from 2030, particularly for VOLMET broadcasts that rely on

¹ Editorial note: The Chair of MET/IE WG presented *SP/02 – OPMET Exchange*.

TAC-formatted MET information. To better understand the potential regional implications, the meeting considered it prudent to consult end users and, in this context, requested the Secretariat to seek further advice from airlines, through coordination with IATA, on expectations regarding the need to continue providing HF VOLMET containing TAC-formatted MET information beyond 2030. [Action Item MET/IE WG/24-22]

*ACSICG/13 – WP/11 – MET IE WG clarification for SWIM related to IWXXM messages
(ATSCG Chair)*

6.41. This paper consolidated ATSCG observations, questions raised during ATSCG Meetings, and the agreed Phase-based AMHS–SWIM transition model, with the objective of facilitating focused discussion with MET IE on MET-specific transition considerations.

6.42. It was noted that ATSCG has proposed a four-phase transition model (Phase 0 to Phase 3) to guide the gradual coexistence of AMHS and SWIM. Phase 0 is AMHS baseline; Phase 1 introduces early SWIM adoption; Phase 2 involves mixed-mode operations; and Phase 3 is SWIM-Enable predominance. Given that MET messages, especially IWXXM, are expected to be early adopters of SWIM, ATSCG raises key clarifications for the ICAO MET IE community:

- The need for IWXXM bridging between AMHS and SWIM
- Differences between IWXXM in AMHS and IWXXM in SWIM
- Timeline and transition planning for MET Messages

6.43. The Meeting noted ATSCG observes that mixed-mode operations for MET exchange are anticipated to persist for a considerable period in the APAC Region due to asynchronous readiness. Differences in current interpretations and expectations regarding MET bridging and exchange arrangements may increase the risk of fragmented implementation, inconsistent operational behaviors, and interoperability challenges at international boundaries. ATSCG emphasized that its role is not to mandate solutions, but to facilitate shared understanding, minimum safeguards, and regional coordination during the transition period.

6.44. Owing to time constraints, this paper could not be discussed in detail. Nevertheless, MET/IE WG/24 clarified that IWXXM in over SWIM and AMHS will be different. SWIM will exchange individual messages, whereas AMHS will exchange bulletins. It is expected that AMHS and SWIM services will operate in parallel for many years. Additionally, it was reported that some States are already transmitting IWXXM messages via the internet.

6.45. The Meeting referred to [WP/21 of MET/IE WG/24](#), which specified that to support expedited exchange of IWXXM, alternate secure protocols have been agreed by METP WG-MIE where bilateral agreements are reached. The ACSICG/13 Meeting was informed about **Decision MIE/13-04: Enabling IWXXM Exchange via Secure Communications**. The ACSICG/13 Meeting requested clarification on the communication medium suggested to be used for the secure transfer of IWXXM and associated guidelines. It was informed that more details will be shared in future Meetings. [Action Item ACSICG/13-12]

6.46. The ACSICG/13 Meeting highlighted the importance of determining which MET messages are recommended for exchange via CRV and which should be transmitted over the internet. It was clarified that the exchange of MET messages over AFS has already been specified in the ROBEX handbook, whereas MET-SWIM exchange will primarily occur over the internet. This will not preclude States exchange MET information over the CRV where mutually agreed.

6.47. The meeting was informed¹ that, from the METP perspective, future MET/SWIM services are expected to be predominantly exchanged over the Internet, reflecting the very large number of anticipated users and the limitations of managing user addressing via the CRV. The MET/SWIM Roadmap was recalled as providing guidance on the timeline for transition from AMHS to SWIM. The MET/IE WG Chair noted that the timeline for AMHS readiness for IWXXM exchange was 2020, aligned with ICAO Annex 3 IWXXM standard, and expedited implementation is required. The meeting also noted that the current regional and global availability of IWXXM-formatted MET information remains insufficient for many users, and that more rapid implementation by States is needed for the aviation system to realise the benefits of digital MET information exchange.

6.48. After detailed deliberations, it was concluded that AMHS is expected to be used for MET messages transmission for at least a decade.

— End of Conjoint session of ACSICG/13 and MET/IE/WG/24 —

7. Future Work Program and Terms of Reference

REVIEW: WP/02 – FOLLOW-UP ACTION FROM MET/IE WG/23 (Secretariat)

7.1. The meeting returned to WP/02 to review the outcomes from MET/IE WG/23, which had been discussed earlier under Agenda Item 2 but were deferred pending the provision of additional information by the Secretariat. The Secretariat presented several proposed updates to the status of action items in the MET/IE WG List of Actions. The meeting reviewed and endorsed these updates as presented in **Appendix D**.

7.2. Noting that several action items related to ROBEX Handbook updates remained open from earlier meetings, the Chair observed that these could be unintentionally duplicated in subsequent update proposals. To address this, the Chair recommended that Secretariat papers on ROBEX Handbook updates routinely address all open ROBEX-related action items, in order to maintain currency, avoid duplication, and support more timely completion. The meeting noted this recommendation.

7.3. The meeting noted that Action Item 23/16, concerning automated notification of updates to the Online Register of APAC IWXXM Exchange Status, had been implemented. Although the notification process is not automated due to technical complexity, the meeting considered the current manual approach acceptable and agreed to close the action.

7.4. With respect to Action Item 23/18 on OPMET performance indices for ROCs, NOCs, and States/Administrations, the meeting noted that the action had been partially completed through the provision of State-level PIs by Thailand. However, further work is required to examine the feasibility of developing ROC- and NOC-level PIs. The meeting therefore agreed to keep the action open and noted that the additional PIs, particularly ROC-level PIs, would be beneficial.

7.5. The meeting also noted concerns regarding several unresolved Secretariat action items. The capacity of the Secretariat was once again discussed and it was agreed that progress on these actions would continue to be monitored and reviewed at MET SG/30.

REVIEW: WP/03 – FOLLOW-UP ACTION FROM MET SG/29 (Secretariat)

7.6. The meeting returned to WP/03 to review updates to the follow-up status on outcomes from MET SG/29, as proposed by the Secretariat. The meeting reviewed the updates, which would be reviewed and agreed upon by MET SG/30. The meeting discussed how best the MET/IE WG should

¹ Editorial note: The Chair of MET/IE WG presented *SP/01 – Modernization of Aeronautical MET Services*.

track and monitor progress on MET SG- and APANPIRG-level outcomes, that would require action or attention by the MET/IE WG.

WP/06 – REVIEW MET/IE WG TERMS OF REFERENCE AND WORK PLAN (Secretariat)

7.7. This Secretariat presented WP/06, inviting the meeting to review the Terms of Reference and Work Plan of the Meteorological Information Exchange Working Group (MET/IE WG). The objective was to ensure that the working group remains relevant, effective, and aligned with regional priorities and global requirements for meteorological information exchange. The review considered the scope, objectives, membership, and planned activities of the group, as last updated by MET SG/29.

7.8. The paper recalled that the MET/IE WG operates under the Meteorology Sub-Group of APANPIRG and supports States in improving the quality, availability, and timeliness of meteorological information required for flight planning and in-flight re-planning, in accordance with ICAO Annex 3. Periodic review of the Terms of Reference and Work Plan was noted as necessary to confirm the continued relevance of the group and to ensure its activities remain focused on aviation safety, operational efficiency, and environmental sustainability in the APAC region.

7.9. The current version of the Terms of Reference and Work Plan, reflecting updates approved by MET SG/29, was provided in WP/06, Appendix A for consideration. These documents define the remit, organization, reporting arrangements, membership, communication mechanisms, and planned deliverables of the MET/IE WG.

7.10. The meeting was invited to review the documents in WP/06, Appendix A and to agree on any necessary updates for submission to the Meteorology Sub-Group for further consideration and possible approval. A break-out session drafted a range of updates to the objectives, membership, functions of the group and activities. The meeting subsequently reviewed these updates and noted the information provided. The updates proposed during the MET/IE WG/24 review above (Terms of Reference and Work Plan) are presented in **Appendix F** of this Report.

WP/07 – INDIA'S PERSPECTIVE ON FUTURE WORK PROGRAMME AND TERMS OF REFERENCE FOR METEOROLOGICAL INFORMATION EXCHANGE IN APAC (India)

7.11. India presented WP/07, providing India's perspective on the future work programme and the review of the Terms of Reference (ToR) of the MET/IE Working Group. It highlighted the continuing importance of the MET/IE WG in supporting timely, accurate and interoperable meteorological information exchange across the APAC region, particularly in the context of increasing air traffic and the transition towards digital exchange.

7.12. The paper identified key priority areas for future work, including the phased transition to digital meteorological information exchange using IWXXM, implementation of SWIM-compliant services, strengthening monitoring of data quality and timeliness, capacity building, and ensuring data security. While pilot implementations of IWXXM and early SWIM services have begun in India and some APAC States, the paper noted that integration with legacy systems, full operational deployment, and real-time dissemination remain ongoing challenges requiring coordinated regional action.

7.13. India emphasized that the MET/IE WG's future work programme should focus on regional collaboration, technical trials, and continuous evaluation to support interoperability and operational efficiency. It further proposed that the ToR be updated to reflect evolving technological developments, clearly define roles and responsibilities, and establish structured monitoring and reporting mechanisms.

7.14. The meeting was invited to note the information, consider the proposed priorities for the future work programme, and review and update the Terms of Reference accordingly. The meeting noted the information presented.

8. Next Meeting

8.1. The meeting noted that the Chairs and Secretariat would coordinate with the ACSICG to plan the conduct of MET/IE WG/25 in conjunction with ACSICG/14 in 2027, with tentative dates in March and April 2027. The respective Chairs and Secretariat would jointly develop the meeting programme and agenda to optimise the outcomes of the joint sessions.

8.2. The meeting felt it would be highly beneficial to meet with the ACSICG in support of enabling IWXXM exchange over the AFS. Conjoint sessions with the SWIM/TF would be pursued once the SWIM architecture was more mature.

8.3. The meeting reflected on the value of holding this meeting in the Pacific, enabling many Pacific States to attend and resolve implementation issues and strongly encouraged ICAO to consider holding subsequent meetings in the Pacific. Further, it was recommended that MET/IE WG/26 (2028) be considered for being held in the Pacific.

9. Any Other Business

9.1. Tonga requested that ICAO consider coordinating with the PMC PIAWS Panel on assistance to support the implementation of current and future ICAO Annex 3 requirements and the activities of the PIAWS Panel.

9.2. Pacific States advised that the funding provided by WRPP enabled greater participation in this meeting and encouraged similar funding resources to be made available to support Pacific States attending subsequent MET/IE WG and similar ICAO meetings in the future.

9.3. Further, funding to support hosting such meetings in the Pacific was identified as a key enabler. The meeting participants, including ICAO, greatly appreciated Fiji's hosting of this successful meeting.

— END OF SECTION —

REPORT OF MET/IE WG/24
Appendix A – List of Participants

Appendix A – List of Participants

	STATE/NAME		PARTICIPANT	TITLE/ORGANIZATION	E-MAIL
1	AUSTRALIA (1)	1	Mr. Tim Hailes	National Manager - Transport Customer Engagement, Australian Bureau of Meteorology	tim.hailes@bom.gov.au ;
2	HONGKONG, CHINA (1)	2	Mr. Marco Mang-hin KOK	Senior Scientific Officer, Hong Kong Observatory	mhkok@hko.gov.hk ;
3	MACAO, CHINA (1)	3	Mr. CHAN VAI TAM	Meteorologist, Macao Meteorological and Geophysical Bureau	cvtam@smg.gov.mo ;
4	FIJI (11)	4	Mr. Alvin Chandra	Aerodrome Controller, Fiji Airports Limited	alvinc@fijiairports.com ;
		5	Mr. ESIKI TUKANA	Technical Officer, Fiji Meteorological Services	esiki.tukana@met.gov.fj ;
		6	Mr. Ivan Wong	Head of Operations - ATM, Fiji Airports Limited	ivanw@fijiairports.com.fj ;
		7	Mr. Josaia Malaude	Senior Technical Officer- Aviation Fiji Meteorological Service	josaia.malaude@met.gov.fj ;
		8	Mr. Leonard Bale	Manager ICT , Fiji Meteorological Service	leonard.bale@met.gov.fj ;
		9	Mr. Makiti Raratabu	Senior Air Navigation Service Inspector, Civil Aviation Authority of Fiji	makiti.raratabu@caaf.org.fj ;
		10	Mr. Sakiusa Vakacautadra	Air Navigation Service Inspector-CNS Civil Aviation Authority of Fiji	sakiusa.vakacautadra@caaf.org.fj ;
		11	Ms. Samanunu Cagi	Controller AIS Fiji Airports Limited	samanunuc@fijiairports.com.fj ;
		12	Ms. Vakatokoi Adinaulumatua	Air Navigation Services Inspector ATM/MET, Civil Aviation Authority of Fiji	vakatokoi.adinaulumatua@caaf.org.fj ;
		13	Mr. Vinal Prakash	Senior Scientific Officer, Fiji Meteorological Service	vinal.prakash@met.gov.fj ;
		14	Mr. William Reece	Manager Air Navigation & Engineering Fiji Airports Limited	williamr@fijiairports.com.fj ;
5	INDIA (1)	15	Mr. ANOOP KUMAR MISHRA	Scientist-D, India Meteorological Department	anoop.kumar.mishra@imd.gov.in ;
6	INDONESIA (4)	16	Ms. Annisa Dwi Kurniati	DGCA/Air Navigation Inspector	
		17	Mr. Iqbal Maududi	DGCA/Air Navigation Inspector	
		18	Mr. Muhammad Fadli	Scientific Officer, Indonesian Agency for Meteorological, Climatological and Geophysics (BMKG)	muhammad.fadli@bmkg.go.id ;
		19	Ms. Santi Agustina	Meteorological Officer, Indonesian Agency for Meteorological, Climatological and Geophysics (BMKG)	santi.agustina@bmkg.go.id ;
7	JAPAN (2)	20	Mr. Kentaro Tsuboi	Senior Scientific Officer, Japan Meteorological Agency	k-tsuboi@met.kishou.go.jp ;
		21	Ms. Naoko FUNAHASHI	Assistant Scientific Officer, Japan Meteorological Agency	nao_funahashi@met.kishou.go.jp ;
8	KIRIBATI (4)	22	Masita Enari	Senior Meteorological Officer, the Civil Aviation Authority of Kiribati (CAAK)	enotamasita@gmail.com ;
		23	Tebatibunga Kaongotao;	Senior Met Officer	smo@met.gov.ki ;
		24	Ueneta Toorua	Director of Meteorology	dmet@met.gov.ki ;
		25	Tiamwa Teaiwa	Air Navigation & Aerodrome Inspector	ans.ai@mict.gov.ki ;
9	NEW ZEALAND (1)	26	Ms. Paula Acethorp	Chief Meteorological Officer, Civil Aviation Authority of New Zealand	paula.acethorp@caa.govt.nz ;

REPORT OF MET/IE WG/24
Appendix A – List of Participants

	STATE/NAME		PARTICIPANT	TITLE/ORGANIZATION	E-MAIL
10	PAPUA NEW GUINEA (2)	27	Mr. Konny Nato	Meteorological Inspector, Civil Aviation Safety Authority of Papua New Guinea	knato@casapng.gov.pg ;
		28	Mr. Jimmy Gomoga	Papua New Guinea Meteorology	s.gomoga71@outlook.com ;
11	PHILIPPINES (2)	29	Mr. Arnold A. Santamaria	Air Traffic Management Officer V, Civil Aviation Authority of the Philippines	arnoldsaint102@gmail.com ;
		30	Mr. Ernan M. Tangalin	CNS System Officer, Civil Aviation Authority of the Philippines	ernantangalin@gmail.com ;
12	REPUBLIC OF KOREA (2)	31	Ms. Heeju Jeong	Assistant Director, Aviation Meteorological Office (AMO) of Korea Meteorological Administration (KMA)	jeonghj94@korea.kr ;
		32	Mr. JUNEYONG EOM	Assistant Director, Aviation Meteorological Office (AMO) of Korea Meteorological Administration (KMA)	ejy1370@korea.kr ;
13	SINGAPORE (2)	33	Mr. Keng Oon CHIAM	Deputy Principal Meteorologist, National Environment Agency/Meteorological Service Singapore	chiam_keng_oon@nea.gov.sg ;
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14	TONGA (4)	35	Mr. Sosaia Tuihalafatai Ma'ake	Assistant Secretary Technical, Ministry of Infrastructure, Tonga	szmaake@gmail.com ;
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		37	Mr. Laitia Fifita	Director of Tonga Meteorological Services	laitiaf@met.gov.to ;
		38	Mr. Viliami Fa'anunu	Air Traffic Services Regulatory Officer	viliamif@met.gov.to ;
15	TUVALU (1)	39	Mr. Tavalā Katea	Director of Tuvalu Meteorological Service	tkatea@gov.tv ;
16	VANUATU (3)	40	Mr. Pelensly Lulu	Manager Air Navigation Services, Civil Aviation Authority Vanuatu	plulu@caa.vu ;
		41	Mr. Levu B Antfalo	Vanuatu MET	-
		42	Mr. Jerry Natugogowa	Vanuatu MET	-
17	PASO (1)	43	Mr. Narend Kumar	Met Inspector, Pacific Aviation Safety Office (PASO)	nkumar@paso.aero ;
18	ICAO (2)	44	Mr. Peter Dunda	ICAO Regional Officer, Aeronautical Meteorology and Environment, International Civil Aviation Organization Asia and Pacific Office	pdunda@icao.int ;
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— END OF SECTION —

REPORT OF MET/IE WG/24
Appendix B – List of Papers, Presentations, Flimsies

Appendix B – List of Papers, Presentations, Flimsies

WP/IP/SP No.	Agenda No.	Subject	Presented by
WORKING PAPERS			
WP/01	1	PROVISIONAL AGENDA	Secretariat
WP/02	2	FOLLOW-UP ACTION FROM MET/IE WG/23	Secretariat
WP/03	2	FOLLOW-UP ACTION FROM MET SG/29	Secretariat
WP/04	2	FOLLOW-UP ACTION FROM APANPIRG/36	Secretariat
WP/05	4	ROBEX HANDBOOK UPDATES	Secretariat
WP/06	7	REVIEW MET/IE WG TERMS OF REFERENCE AND WORK PLAN	Secretariat
WP/07	7	INDIA'S PERSPECTIVE ON FUTURE WORK PROGRAMME AND TERMS OF REFERENCE FOR METEOROLOGICAL INFORMATION EXCHANGE IN APAC	India
WP/08	3	UPDATE OF METEOROLOGICAL REPORTING SCHEDULES IN THE ROBEX MANUAL	Fiji
WP/09	3	REVIEW OF WS/LS SIGMET TEST 2025	Singapore
WP/10	3	RESULTS OF SIGMET TESTS 2025 – TC and VA	Japan
ACSICG/13	6	REVIEW OF ASIA AND PACIFIC REGION IWXXM IMPLEMENTATION STATUS/ READINESS	Secretariat
WP/10			
WP/11	3	ASIA/PAC INTER-REGIONAL OPMET GATEWAY BACKUP EXERCISE BETWEEN IROG SINGAPORE AND IROG BANGKOK	Singapore
ACSICG/13	6	MET IE WG clarification for SWIM related to IWXXM messages	ATSCG Chair
WP/11			
WP/12	3	INVESTIGATION AND RECTIFICATION OF LOW OPMET PERFORMANCE INDICES FOR SINGAPORE	Singapore
WP/13	3	INDONESIA PERFORMANCE INDICES IMPROVEMENT	Indonesia
WP/14	3	UPDATE ON VONA DISTRIBUTION	New Zealand
WP/15	4	INCLUSION OF VONA HEADERS IN ROBEX HANDBOOK	New Zealand
WP/16	4	OHAKA METAR INFORMATION IN ROBEX HANDBOOK	New Zealand
WP/17	6	IWXXM IMPLEMENTATION PROGRESS IN INDONESIA	Indonesia
WP/18	4	PROPOSALS FOR AMENDMENTS TO THE ROBEX IN INDONESIA	Indonesia
WP/19	6	CESSATION OF THE USE OF LEGACY TEXT-BASED FORMAT - TRADITIONAL ALPHANUMERIC CODE (TAC)	Hong Kong China
WP/20	5	UPDATE MET-SWIM DOCUMENTATION	Australia
WP/21	6	SECURE IWXXM EXCHANGE IN THE ABSENCE OF AMHS/FTBP	Australia
WP/22	6	STATUS OF APAC IWXXM MESSAGE EXCHANGE OVER AMHS	Australia and Hong Kong, China
WP/23	6	LATEST STATUS OF IWXXM	Hong Kong China
WP/24	3	ASIA/PAC INTER-REGIONAL OPMET GATEWAY BACK-UP EXERCISE BETWEEN IROG BANGKOK AND IROG SINGAPORE	Thailand
WP/25	4	ROBEX HANDBOOK UPDATES IN ACCORDANCE WITH THE REVIEW OF THE PERFORMANCE INDICES (PIs) USED IN APAC OPMET MONITORING	Thailand
WP/26	3	ASIA/PACIFIC PERFORMANCE INDICES	Thailand
WP/27	5	GUIDANCE MATERIAL TO ASSIST APANPIRG SUBSIDIARY GROUPS IN REVIEWING AND UPDATING THE LIST OF APAC COMMON SWIM INFORMATION SERVICES	SWIM TF
INFORMATION PAPERS			
IP/01	1	MEETING BULLETIN	Secretariat
IP/02	3	BENEFITS AND OUTCOMES FROM AEROTHAI VISIT TO FIJI AIRPORTS	Fiji
IP/03	6	STATUS AND PLANS FOR THE IMPLEMENTATION OF OPMET DATA EXCHANGE USING IWXXM IN THE REPUBLIC OF KOREA	Republic of Korea
ACSICG/13	6	INDONESIA AMHS UPGRADE TO SUPPORT IWXXM	Indonesia
IP/04			
ACSICG/13	6	UPDATES ON FIJI'S AMHS SYSTEM UPGRADE	Fiji
IP07			
PRESENTATIONS			
SP/01	6	MODERNIZATION OF AERONAUTICAL MET SERVICES	Chair MET/IE WG
SP/02	6	OPMET EXCHANGE	Chair MET/IE WG
FLIMSIES			
FL/01	3	ONLINE METAR/TAF TABLES OF ROBEX HANDBOOK	Hong Kong China

— END OF SECTION —

REPORT OF MET/IE WG/24
Appendix C – List of Draft Conclusions, Draft Decisions, Decisions

Appendix C – List of Draft Conclusions, Draft Decisions, Decisions

MET/IE WG Draft Conclusions (DC), Draft Decisions (DD), Decisions (D)

No.	Title and Description (What:)	Background (Why:)	Responsibility (Who:)	Target Date (When:)	Expected impact:	Follow- up:	Status/ Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
DC 24-01	IWXXM VERSION COMPATIBILITY That, States are requested to ensure that MET service providers, air navigation service providers (ANSPs), airlines and other end users do the following: a) make the necessary system upgrades to support the IWXXM version, which complies with the latest amendment to Annex 3 as stated in the IWXXM compatibility table*; and b) prepare for future system upgrades to support future IWXXM versions driven by further amendments to Annex 3. *Link to the IWXXM capability table: https://wmo.int/iwxxm	Many States are exchanging IWXXM OPMET data in older versions of IWXXM which are no longer compliant with Amendments 82 to ICAO Annex 3. 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.	Sub-Groups, APAC States, ICAO APAC RO	As soon as practicable	Inter - Regional, Economic, Ops/ Technical	Required from States	Draft to be adopted by MET SG
DC 24-02	DISSEMINATION OF IWXXM That: a) APAC ROCs and IROGs, namely Bangkok, Brisbane, Colombo, Delhi, Karachi, Kolkata, Mumbai, Nadi, and Tokyo, expedite the implementation of network circuits and communication services necessary to enable the required regional global dissemination of meteorological information in the ICAO Meteorological Information Exchange Model (IWXXM) form including support for the Air Traffic Services Message Handling System (AMHS) with File Transfer Body Part (FTBP) and Interpersonal Message Heading Extension (IHE), and backup paths for redundancy purposes; and b) To support intra-regional exchange of IWXXM, the IROGs establish operational IWXXM exchange with IROGs in the ICAO AFI, MID, NAM and SAM Regions.	Following the provisions of ICAO Annex 3– Meteorological Service for International Air Navigation (applicable 2020), States shall ensure that certain meteorological information is disseminated to users in the IWXXM form. However, without suitable configured communication networks to support the necessary intra- and inter-regional exchange of IWXXM messages, global dissemination of meteorological information in IWXXM form will not be possible. Consequently, the migration of user and supplier systems from meteorological information in the traditional alphanumeric code (TAC) form to the IWXXM form, as required in Amendment 79 to Annex 3 (applicable Nov 2020), will remain inhibited.	Sub-Groups, APAC States, ICAO APAC RO	As soon as practicable	Inter - Regional, Economic, Ops/ Technical	Required from States	Draft to be adopted by MET SG
DC 23-01	Management of obsolete planning and implementation guidance documents on the ICAO APAC Office website 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,	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	ICAO APAC RO	As soon as practicable	Ops/ Technical	-	ADOPTED (Ref: adopted by MET SG/29 in Draft Conclusion MET SG/29/02 –

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Appendix C – List of Draft Conclusions, Draft Decisions, Decisions

No.	Title and Description (What:)	Background (Why:)	Responsibility (Who:)	Target Date (When:)	Expected impact:	Follow- up:	Status/ Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	including those related to MET and other AN fields.	operational requirements.					<i>Management of obsolete planning and implementation guidance documents on the ICAO APAC Office website, Report of MET SG/29, paragraphs 2.12. – 2.21.)</i>
DC 23-02	IWXXM update notification process 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.	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.	ICAO APAC RO, ICAO HQ	As soon as practicable	Ops/ Technical	-	ADOPTED (Ref: adopted by MET SG/29 in Draft Conclusion MET SG/29/03 – <i>IWXXM update notification process</i> , Report of MET SG/29, paragraphs 2.12. – 2.21.)
D 23-03	Use of IWXXM Product Version in OPMET Performance Indices That, MET/IE WG adopt the practice of calculating OPMET performance indices based on IWXXM product versions rather than package versions for the purposes of OPMET monitoring.	RODB Bangkok has analyzed IWXXM statistics based on package versions and found that statistics calculated using package versions can misinterpret identical product versions as being different. The alternative approach of analyzing product versions should provide a clearer view of the monitoring results.	[MET/IE WG] Sub-Groups, ICAO APAC RO	As soon as practicable	Ops/ Technical	-	Adopted by MET/IE WG
DC 22-01	Availability and Timeliness of TAC and IWXXM Meteorological Information The annual OPMET monitoring activity of TAC and IWXXM information should monitor availability and timeliness of TAF and METAR messages (instead of availability, compliance and reliability), highlighting any statistics less than 95%. Further, the MET Deficiency Identification Guide should be updated to: - Reflect the requirement for IWXXM OPMET information dissemination - Reflect the requirement for successful translation (where applicable) - Identify METAR and TAF that have availability and	To support the adoption of IWXXM format meteorological information by aviation, the information must be consistently available, with quality content and sufficient timeliness to support aviation safety and efficiency.	MET SG Ad hoc group on deficiencies	By MET SG/28	Ops/ Technical	Required from MET SG	ADOPTED [Conclusion MET SG/28-02]

REPORT OF MET/IE WG/24
Appendix C – List of Draft Conclusions, Draft Decisions, Decisions

No.	Title and Description (What:)	Background (Why:)	Responsibility (Who:)	Target Date (When:)	Expected impact:	Follow- up:	Status/ Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	timeliness scores of less than 95% during the monitoring period.						
DC 22-02	Review of APAC Region IWXXM Implementation Status/ Readiness States / Administrations provide ICAO an update on the status and readiness dates for the following: a) AMHS with FTBP/IHE and configuration for single body part; b) AMHS connection(s) will have sufficient capacity to support IWXXM exchange; c) when operational IWXXM information will available; and d) commencement of operational exchange of IWXXM with their Regional OPMET Centre (ROC), and where applicable their respective Inter-regional OPMET Gateway.	As per Amendment 79 to Annex 3 (applicable November 2020), States/ Administrations are required to exchange meteorological information in IWXXM form.	Sub-groups, APAC States, ICAO APAC RO	22-Mar-24	Ops/ Technical	Required from MET SG	ADOPTED [Conclusion MET SG/28-03]

— END OF SECTION —

REPORT OF MET/IE WG/24
Appendix D – List of Actions

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MET/IE WG/24 – List of Actions

ACTION ITEM	DESCRIPTION	BY DATE	RESPONSIBILITY	STATUS/ REMARKS
MET/IE WG/24-01	Review Agenda Sequencing for SWIM and IWXXM Items Review and consider adjusting the order of SWIM- and IWXXM-related agenda items for future meetings to better reflect the logical progression toward the aviation SWIM environment. [Ref: MET/IE WG/24 Report, para. 1.4.]	Prior to finalization of the provisional agenda for the next MET/IE WG meeting	MET/IE WG Chair, in coordination with the ICAO Secretariat	
MET/IE WG/24-02	Update of ROBEX Handbook and Alignment of METAR/TAF Services a) review and update Tongan meteorological station reporting hours and ROBEX focal point information for Fiji to ensure consistency between published information in the ROBEX Handbook and actual operations; b) review the current allocation of Tongan aerodromes in ROBEX bulletins and take action, as appropriate, to relocate stations to bulletins that reflect non-continuous METAR availability; c) review TAF validity periods for affected aerodromes, with consideration of issuing shorter duration TAFs to better align with actual METAR availability and avoid routine cancellations; and d) incorporate the updated information, including new bulletins (SAPS34 NFFN and FTPS34 NFFN) and revised station details, into a ROBEX Handbook update proposal. [Ref: MET/IE WG/24 Report, para. 3.4.-3.7.]	As soon as practicable, and in time for the next ROBEX Handbook update cycle (including implementation from AIRAC 11 June 2026, where applicable)	Fiji, Tonga, and the ICAO Secretariat	
MET/IE WG/24-03	Investigation of Limited IWXXM SIGMET Reception in EUR Region Share the results of the WS/LS SIGMET Test 2025 with the ICAO EUR Region and seek assistance to identify the cause of the limited reception of SIGMET test messages, particularly in IWXXM form, indicated in the EUR ROC reception data. [Ref: MET/IE WG/24 Report, para. 3.18.-3.21.]	As soon as practicable	ICAO Secretariat	
MET/IE WG/24-04	Investigation of Non-Receipt of Advisory Test Messages in SIGMET Tests Expand the SIGMET test procedures to include investigation of test results indicating that TC and VA advisory messages were not received, including cases where advisory test messages were not issued in IWXXM form and include such results in future SIGMET test reports. [Ref: MET/IE WG/24 Report, para. 3.23.-3.28.]	Before the next SIGMET test cycle	SIGMET test focal point from Japan, in coordination with the ICAO Secretariat	
MET/IE WG/24-05	Update of ROBEX Handbook for Singapore METAR Reporting incorporate the updated ROBEX bulletin arrangements and reporting characteristics for Singapore aerodromes (WSSL and WSAP), including their reallocation from SAMS31 to SAMS38 and corresponding IWXXM bulletin updates, into the ROBEX Handbook (20th Edition). [Ref: MET/IE WG/24 Report, para. 3.29.-3.31. and 3.34.]	As soon as practicable, and in time for publication of the ROBEX Handbook 20th Edition	ICAO Secretariat	

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ACTION ITEM	DESCRIPTION	BY DATE	RESPONSIBILITY	STATUS/ REMARKS
MET/IE WG/24-06	Investigation of Low OPMET Performance Indices for ROC KWBC Coordinate with the corresponding NAM Region IROG to investigate the low performance indices related to OPMET bulletins from ROC KWBC and identify measures to resolve the issue. [Ref: MET/IE WG/24 Report, para. 3.44. to 3.45.]	As soon as practicable	IROG Tokyo, in coordination with the corresponding NAM Region IROG	
MET/IE WG/24-07	Separation of AOP and Non-AOP OPMET Results for States' Performance indices in Future Monitoring Separate AOP and non-AOP OPMET State Performance Indices results in future Asia/Pacific OPMET monitoring reports to support clearer interpretation and use of the results by States. [Ref: MET/IE WG/24 Report, para. 3.39. to 3.48.]	For the next Asia/Pacific OPMET monitoring cycle	Thailand (RODB Bangkok)	
MET/IE WG/24-08	Further Investigation of VONA Retention and Distribution Investigate options for the retention and distribution of VONA, including appropriate retention periods, access via RODBs, and report the findings to the MET SG for review and further consideration. [Ref: MET/IE WG/24 Report, para. 3.51. to 3.57.]	For the next MET SG meeting	New Zealand	
MET/IE WG/24-09	Collection of global focal point email contacts for OPMET bulletin notifications Seek email contact details from each ICAO region for key focal points who wish to receive notifications of changes to APAC OPMET bulletins. [Ref: MET/IE WG/24 Report, para. 4.6.]	To be confirmed	ICAO Secretariat	
MET/IE WG/24-10	Proposal to amend METNO procedure for OPMET bulletin notifications Propose changes to the METNO procedure to include email notifications to key OPMET exchange focal points in all ICAO regions. [Ref: MET/IE WG/24 Report, para. 4.6.]	To be confirmed	MET/IE WG Chairs	
MET/IE WG/24-11	Identification of optimal location for VONA header list Further investigate the most appropriate location for the proposed list of VONA headers, and add a link to the location in SIGMET Guide when the location is identified. [Ref: MET/IE WG/24 Report, para. 4.7. to 4.12.]	To be confirmed	New Zealand	
MET/IE WG/24-12	Collection of VONA header information from States Invite States with designated SVOs, via State letter, to provide available information on VONA headers for inclusion in the proposed list. [Ref: MET/IE WG/24 Report, para. 4.7. to 4.12.]	To be confirmed	ICAO Secretariat, in coordination with New Zealand	

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ACTION ITEM	DESCRIPTION	BY DATE	RESPONSIBILITY	STATUS/ REMARKS
MET/IE WG/24-13	Submission of ROBEX Handbook PI amendments to MET SG Submit the proposed amendments to the ROBEX Handbook related to OPMET performance indices to the MET SG for review and possible endorsement, subject to satisfactory clarification of the OPMET monitoring time discrepancy between the APAC and EUR Regions. [Ref: MET/IE WG/24 Report, para. 4.13. to 4.16.]	For consideration at MET SG/30	ICAO Secretariat, MET/IE WG Chair	
MET/IE WG/24-14	Removal of “AMD observations” reference from ROBEX Handbook Include the deletion of the “no AMD observations” indication for METAR in the next ROBEX Handbook update proposal for review by the MET SG. [Ref: MET/IE WG/24 Report, para. 4.17.]	For consideration at MET SG/30	ICAO Secretariat	
MET/IE WG/24-15	Inclusion of Ohakea METAR AUTO bulletin updates in ROBEX Handbook Include the proposed updates to Appendix A, Table A, of the ROBEX Handbook for the SANZ33 and FTNZ33 bulletins in the next ROBEX Handbook update for review and endorsement by MET SG/30. [Ref: MET/IE WG/24 Report, para. 4.18. to 4.21.]	For consideration at MET SG/30	ICAO Secretariat	
MET/IE WG/24-16	Inclusion of Indonesia ROBEX Handbook amendments Include the proposed amendments relating to Jakarta ROC addressing, TAF validity periods, and the ROBEX focal point for Indonesia in the next ROBEX Handbook update for review at MET SG/30. [Ref: MET/IE WG/24 Report, para. 4.22. to 4.25.]	For consideration at MET SG/30	ICAO Secretariat	
MET/IE WG/24-17	Notification of updated ROC Jakarta AFTN address Inform relevant stakeholders, including other ROCs and operational units, of the updated AFTN address for ROC Jakarta to support continued exchange of MET information. [Ref: MET/IE WG/24 Report, para. 4.26.]	To be confirmed	ICAO Secretariat and Indonesia	
MET/IE WG/24-18	Further development of online METAR and TAF bulletin tables Further develop the proposed online spreadsheet for METAR and TAF bulletin tables, in coordination with the Secretariat, with particular focus on change-management considerations, and present the refined proposal to MET SG/30 for review and appropriate action. [Ref: MET/IE WG/24 Report, para. 4.27. to 4.30.]	For consideration at MET SG/30	Hong Kong, China (in coordination with the ICAO Secretariat)	
MET/IE WG/24-19	Continued Review of APAC Common SWIM Information Services Guidance Include the review of the APAC Common SWIM Information Services document as a standing agenda item at future MET/IE WG meetings. [Ref: MET/IE WG/24 Report, para. 5.6. to 5.10.]	Prior to next MET/IE WG meeting	ICAO Secretariat and MET/IE WG Chairs	

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ACTION ITEM	DESCRIPTION	BY DATE	RESPONSIBILITY	STATUS/ REMARKS
MET/IE WG/24- 20	Assessment of IWXXM Implementation Gaps and Assistance Needs for PSIDS Coordinate an assessment of IWXXM implementation gaps and related assistance needs for Tonga and other PSIDS to support sustainable compliance with the IWXXM SARPs, taking into account capacity and resource constraints. [Ref: MET/IE WG/24 Report, para. 6.5.]	For consideration by the next MET Sub-Group meeting	ICAO Secretariat, in coordination with Tonga	
MET/IE WG/24- 21	Support to ACSICG Task Group on Alternative Pathways for IWXXM Exchange Coordinate the recruitment of a suitable MET expert/s to support the ACSICG small task group in investigating the feasibility of alternative pathways for MET information exchange within the context of the ROBEX Scheme, including options to improve redundancy and mitigate risks where AMHS/FTBP is not available. [Ref: MET/IE WG/24 Report, para. 6.34. to 6.35.]	As soon as practicable	MET/IE WG Chair and ICAO Secretariat	
MET/IE WG/24- 22	Consultation with Airlines on Post-2030 HF VOLMET Requirements Seek advice from airlines, through coordination with IATA, on expectations regarding the need to continue providing HF VOLMET services containing TAC-formatted MET information beyond 2030, to inform consideration of transitional arrangements for the cessation of TAC. [Ref: MET/IE WG/24 Report, para. 6.36. to 6.40.]	Before the next meeting of the MET Sub-Group	ICAO Secretariat	

Note: Action Items previously reported as completed, closed, or superseded have been removed from the list.

MET/IE WG/23 – List of Actions

ACTION ITEM	DESCRIPTION	BY DATE	RESPONSIBILITY	STATUS/ REMARKS
MET/IE WG/23 01	<u>Updating MET-related regional guidance documents</u> Document a process to clarify how States should initiate required changes to all the relevant (MET-related) regional guidance documents. [Ref: para. 2.4.]	tbc	Secretariat, with assistance from the Chair and New Zealand	COMPLETED [Decision MET SG/29/09, MET SG Action 29/05 and 29/06]
MET/IE WG/23 02	<u>Including WIFS in the annual SIGMET tests</u> Respond to the action item (MET SG/28 28/06: Consider the feasibility of including WIFS in the annual SIGMET tests) for consideration by MET SG/29 [Ref: para. 2.6.]	MET SG/29	SIGMET test focal points, Japan and Singapore	
MET/IE WG/23 03	<u>Including IWXXM results in the SIGMET test reports</u> Include the IWXXM results in future SIGMET test reports. [Ref: para. 3.2.]	MET/IE WG/24	Singapore	
MET/IE WG/23 04	<u>Investigating IROG back-up arrangements</u> Investigate the impact of an IROG outage at each of the IROGs, including Brisbane, Nadi and Tokyo, and the importance of implementing back-up arrangements. [Ref: para. 3.9.]	tbc	IROG provider States	

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ACTION ITEM	DESCRIPTION	BY DATE	RESPONSIBILITY	STATUS/ REMARKS
MET/IE WG/23 05	<u>Increasing IWXXM-specific (Availability and Timeliness) PI independence</u> Review the IWXXM-specific Performance Indices (PI) algorithms to increase the independence of the Availability and Timeliness results. [Ref: para. 3.13.]	tbc	Thailand	
MET/IE WG/23 06	<u>Identifying non-operational ICAO APAC OPMET website documents</u> Ensure historic OPMET-related documents (e.g., FASID Tables) on the ICAO APAC Office website are clearly identified as obsolete and non-operational. [Ref: para. 4.3.]	tbc	Secretariat	IN PROGRESS
MET/IE WG/23 07	<u>Managing ICAO APAC web documents archive</u> Prepare a Draft Conclusion proposing that ICAO take appropriate action to manage the archive of obsolete and historic planning and guidance documents on its website, including those related to MET and other AN fields. [Ref: para. 4.4.]	tbc	tbc	COMPLETED [Draft Conclusion MET SG/29/02 => Conclusion APANPIRG/36/15]
MET/IE WG/23 08	<u>Submitting ROBEX Handbook update proposals</u> Invite the USA to submit the ROBEX Handbook update proposals for its aerodromes in the APAC Region. [Ref: para. 4.5.]	tbc	Secretariat	COMPLETED [Ref: ROBEX HB, 19 TH Ed]
MET/IE WG/23 09	<u>Proposing ROBEX Focal Point updates</u> Propose necessary updates to the ROBEX Handbook, Appendix I, Focal Point information. [Ref: para. 4.6.]	tbc	Secretariat, Republic of Korea, Hong Kong China, Fiji, Japan, Malaysia, and Singapore	COMPLETED [Ref: ROBEX HB, 18 TH Ed]
MET/IE WG/23 10	<u>Completing previous ROBEX Handbook update proposals</u> Prepare previously proposed but uncompleted updates to the ROBEX Handbook for review and possible adoption by MET SG/29. [Ref: para. 4.8.]	MET SG/29	Secretariat	IN PROGRESS
MET/IE WG/23 11	<u>Publishing updates in the ROBEX Handbook, 18th Edition</u> Publish the updates presented in MET/IE WG/23, WP/11, Appendix A, in the ROBEX Handbook, 18th Edition, dated March 2025, and include the available focal point updates in the 18th Edition of the ROBEX Handbook. [Ref: para. 4.11.]	tbc	Secretariat	COMPLETED [Ref: ROBEX HB, 18 TH Ed]
MET/IE WG/23 12	<u>Publishing updates in the ROBEX Handbook, 18th Edition</u> Publish the updates presented in MET/IE WG/23, WP/17, Appendices A and B, in the ROBEX Handbook, 18th Edition, dated March 2025. [Ref: para. 4.14.]	tbc	Secretariat	COMPLETED [Ref: ROBEX HB, 18 TH Ed]
MET/IE WG/23 13	<u>Updating the ICAO Asia/Pacific Regional SIGMET Guide, Appendix E</u> Ensure the proposed updates in MET/IE WG/23, WP/12, concerning WMO headers for Tropical Cyclone Advisories from TCAC Darwin, are included in the next revision of the ICAO Asia/Pacific Regional SIGMET Guide, Appendix E. [Ref: para. 4.16.]	tbc	Secretariat, in collaboration with the ad hoc group on the SIGMET Guide	COMPLETED [Ref: SIGMET Guide, 12 TH Ed]

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ACTION ITEM	DESCRIPTION	BY DATE	RESPONSIBILITY	STATUS/ REMARKS
MET/IE WG/23 14	<u>Publishing updates to the IWXXM Implementation FAQs</u> Publish the updated version of the "IWXXM Implementation in APAC Region – FAQs" on the ICAO APAC Office website (States are invited to provide feedback on the amendments within a two-week period, which will be reviewed and addressed by Australia and Hong Kong China before the amendments are published. Any contentious issues will be deferred for further review at MET SG/29). [Ref: para. 4.18.]	MET SG/29	Secretariat, Australia and Hong Kong China	COMPLETED [Ref: IWXXM FAQs, 3 rd Ed]
MET/IE WG/23 15	<u>Proposing updates to the APAC Common SWIM Information Services list</u> Propose updates to the draft list of business functionalities for APAC Common SWIM Information Services to reflect outcomes from the recent METP/6 meeting, the information service priorities, and include consistent use of the term "information service" for further review and consideration by the SWIM TF. [Ref: para. 5.7.]	SWIM TF/10	tbc	
MET/IE WG/23 16	<u>Automating notification of updates to the APAC IWXXM Exchange Status</u> Develop the <i>Online Register of APAC IWXXM Exchange Status</i> , accessible on the ICAO APAC e-docs webpage under MET, to enable Regional OPMET Centres (ROCs) and National OPMET Centres (NOCs) to update the register and automatically notify other ROCs and NOCs of enhanced AMHS capability to disseminate IWXXM reports. [Ref: para. 6.1.25.]	tbc	Australia and Hong Kong, China	CLOSED [Ref: Paragraph 7.3 of MET/IE WG/24 report]
MET/IE WG/23 17	<u>Providing an IWXXM update notification process</u> Prepare a Draft Conclusion proposing that ICAO seek support from WMO to provide an IWXXM update notification process for all relevant stakeholders, including IWXXM consumers and system vendors. [Ref: para. 6.7.]	tbc	tbc	COMPLETED [Draft Conclusion MET SG/29/03 => Conclusion APANPIRG/36/16]
MET/IE WG/23 18	<u>Producing PIs for ROCs, NOCs, or States/Administrations</u> Investigate the advantages and disadvantages of producing State performance indices (PIs) for Regional OPMET Centres (ROCs), National OPMET Centres (NOCs) or States/Administrations. [Ref: para. 6.9.]	tbc	Thailand	

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ACTION ITEM	DESCRIPTION	BY DATE	RESPONSIBILITY	STATUS/ REMARKS
MET/IE WG/22 03	<u>ROBEX Handbook updates – procedure for OPMET monitoring</u> Include the procedure for obtaining the latest ROBEX data, i.e., from the Secretariat (rather than from the published ROBEX Handbook) for use as the benchmark for OPMET monitoring, in the next proposed update to the ROBEX Handbook. [Ref: Report of MET/IE WG/22, para. 2.4.]	1 month before MET SG/28	Secretariat	TO COMMENCE
MET/IE WG/22 07	<u>IWXXM dissemination – issues for non-ROBEX locations</u> Forward the MET/IE WG/22 discussion outcomes concerning the issue of disseminating METAR/SPECI in the IWXXM form for weather stations not listed in the ROBEX handbook (as presented in MET/IE WG/22 WP/15) to the MET Panel for further consideration. [Ref: Report of MET/IE WG/22, para. 4.4.]	April 2024	Secretariat and Chair	IN PROGRESS

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ACTION ITEM	DESCRIPTION	BY DATE	RESPONSIBILITY	STATUS/ REMARKS
MET/IE WG/22 09	ROBEX Handbook updates – focal points Review the membership of the ROBEX Handbook focal points and clarify the purpose of these contacts; propose appropriate updates to the ROBEX Handbook. [Ref: Report of MET/IE WG/22, para. 6.10.]	1 month before MET SG/29	Secretariat	IN PROGRESS
MET/IE WG/22 17	MET/IE WG meeting – timeliness of papers Review the timeliness of availability and submission of papers at future MET/IE WG meetings [Ref: Report of MET/IE WG/22, para. 9.1.]	MET/IE WG/23	Secretariat and Chairs	IN PROGRESS

MET/IE WG/21 – List of Actions

ACTION ITEM	DESCRIPTION	BY DATE	RESPONSIBILITY	STATUS/ REMARKS
MET/IE WG/21 12	Incorporate the changes to Table B format (as proposed by New Zealand in MET/IE WG/21, WP/12, and subject to the minor change suggested by the Meeting) in the proposal for updates to follow the publication of the ROBEX Handbook, Fifteenth Edition. [Ref: MET/IE WG/21 Report, para 6.11]	1 month before MET SG/29	Secretariat	IN PROGRESS
MET/IE WG/21 16	Contact the listed members that were not in attendance at MET/IE WG/21 to confirm their membership status on the MET/IE WG [Ref: MET/IE WG/21 Report, para 7.2]	MET SG/27	Secretariat	IN PROGRESS

MET/IE WG/20 – List of Actions

ACTION ITEM	DESCRIPTION	BY DATE	RESPONSIBILITY	STATUS/ REMARKS
MET/IE WG/20 02	Coordinate the consequential amendments to the ANP (Volume II, Table MET II-2 – Aerodrome Meteorological Offices) to reflect the requirements for MET service at QUANG NINH/Van Don International Airport (ICAO location indicator VVVD). [Ref: Report of MET/IE WG/20, para. 3.5.] (a) Ref: MET SG/27, WP/14 - Review of the APAC ANP (b) Ref: ROBEX HB 15 th Ed.	1 month before MET SG/29	Secretariat	COMPLETED [Ref: APAC.II.25/25-MET]
MET/IE WG/20 10	Coordinate with Indonesia to: a) Validate the proposed updates in WP/08, which concerned aerodrome names that were not reflected in the ANP, Table AOP I-1 – <i>International Aerodromes Required in the APAC Regions</i> ; and b) Include the validated proposals in the next update of the ROBEX Handbook. [Ref: Report of MET/IE WG/20, para. 6.9.] Ref: MET SG/27, WP/14 - Review of the APAC ANP	1 month before MET SG/29	Secretariat, in coordination with participants from Indonesia	IN PROGRESS [Ref: APAC.II.25/25-MET]

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ACTION ITEM	DESCRIPTION	BY DATE	RESPONSIBILITY	STATUS/ REMARKS
MET/IE WG/20 13	Convene a quarterly meeting of the MET/IE WG (core) members to progress updates to the work plan and terms of reference, including assigning specific dates and responsibilities (incl. identifying a lead and supporting resources for activities) and merging Activities 1 and 2 in the work plan. After the Secretariat and Chairs of MET SG and WGs have prepared the integrated reporting template. <i>[Ref: Report of MET/IE WG/20, para. 7.5.]</i>	Before MET SG/27	Chair MET/IE WG and Secretariat	IN PROGRESS
MET/IE WG/20 15	Concerning the inclusion of MWOs not located in the APAC Region, perform a cross-check of the ICAO APAC SIGMET Test Procedures against the legacy FASID Tables MET 3A – <i>Tropical Cyclone Advisory Centres</i> and 3B – <i>Volcanic Ash Advisory Centres</i> . <i>[Ref: Report of Conjoint Session of MET/IE WG/20 and MET/S WG/12, para. 2.17.]</i>	1 month before MET SG/29	Secretariat	IN PROGRESS
MET/IE WG/20 17	Follow up with Myanmar on the appropriate addressing of letters from ICAO inviting participation in SIGMET tests. <i>[Ref: Report of Conjoint Session of MET/IE WG/20 and MET/S WG/12, para. 2.23.]</i>	Before MET SG/27	Secretariat, in coordination with participants from Myanmar	IN PROGRESS

MET/IE WG/18 and MET/S WG/10 – List of Actions

ACTION ITEM	DESCRIPTION	BY DATE	RESPONSIBILITY	STATUS/ REMARKS
18	ROBEX Handbook and SIGMET Guide updates – Legacy FASID information: Prepare the consequential updates of the required information from the legacy FASID Tables relating to meteorology, apart from Table MET 1A, Table MET 1B and Table MET 3C, and the existing ICAO APAC regional guidance documentation, according to the proposal in WP/11 and the Draft Decision [ref: para. 4.16.]	1 month before MET SG/29	Secretariat	IN PROGRESS Ref: MET/IE WG, 5. Work Plan, Activity 6
19	ANP and ROBEX Handbook updates – Vietnam NOC: Coordinate on the implementation of the Vietnam NOC, including development of proposed updates to the APAC ANP [ref: para. 3.7.] Ref: MET SG/27, WP/14 - Review of the APAC ANP	1 month before MET SG/29	Vietnam and Thailand	COMPLETED [Ref: APAC.II.25/25-MET]
20	ANP and ROBEX Handbook updates – Indonesia new aerodromes: Determine any requirement (based on IP/09) to update the ICAO APAC (a) ANP and/or (b) ROBEX Handbook [ref: para. 8.27.] (a) Ref: MET SG/27, WP/14 - Review of the APAC ANP (b) Ref: MET SG/27, WP/09 - ROBEX HB UPDATES	1 month before MET SG/29	Secretariat and Indonesia	IN PROGRESS Ref: MET/IE WG, 5. Work Plan, Activity 6 [Ref: APAC.II.25/25-MET]

MET/IE WG/17 – List of Actions

ACTION ITEM	DESCRIPTION	BY DATE	RESPONSIBILITY	STATUS/ REMARKS
17/1	Coordinate all necessary notifications concerning the planned handover of the provision of SIGMET service valid for Phnom Penh FIR from MWO Chengdu to MWO Phnom Penh, including the following: updates to the ANP, including the legacy FASID tables, and the Regional SIGMET Guide. <i>[Report of MET/IE WG/17, para. 3.1 – 3.4, refers]</i>	1 month before MET SG/29	Secretariat	IN PROGRESS

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Appendix D – List of Actions

ACTION ITEM	DESCRIPTION	BY DATE	RESPONSIBILITY	STATUS/ REMARKS
17/10	Liaise with the SADIS Provider concerning obtaining OPMET availability statistics on SADIS for future meetings of the MET/IE WG. Propose appropriate actions to apply the statistics to improve OPMET availability. <i>[Report of MET/IE WG/17, para. 4.21, refers]</i>	Before MET SG/27	Secretariat	IN PROGRESS
17/20	Propose updates to all required APAC documentation regarding the originating address of Australian WV SIGMETs (i.e., YMMC, rather than AMMC). <i>[Report of conjoint session of MET/IE WG/17 and MET/S WG/9, para. 2.24, refers]</i>	1 month before MET SG/29	Secretariat	COMPLETED [Ref: APAC.II.25/25-MET]

— END OF SECTION —

Appendix E – Summary of Pacific OPMET Discussion

- **OPMET Provision From NOCs**

- Emailing of OPMET, while largely successful, can result in delays in ingestion (someone may be away from their desk/otherwise busy) – however, the sender won't know if there's a delay, so a backup method may not be enacted.
- With their new system, ROC Nadi may be able to provide AMHS 'user agents' other States can use – recommendation to test this, once possible. ROC Nadi expects to provide advice on this by the end of May 2026.
- Alternatively, US NWS data ingestion (EDIS) may be an alternative method for METAR sending, using email. This could also function as a backup (noting backups should be tested regularly).
- If ceasing emailing of METAR, ideally don't stop sending without talking to the people it's sent to. From an aviation point of view, each part should recall who they should send it to and where it should go.

- **ROC Coordination**

- Sharing of performance reports by ROC Nadi to the contributing MET agencies is seen as a valuable service.
- Important for ROCs to reach out to their contributing MET agencies, so everyone is aware of what is working well and what needs improving.
 - PIAWS Panel may be a useful forum for this, for Nadi ROC.

- **IWXXM Form OPMET**

- For IWXXM translation, the system that does the conversion should alert on any errors (as per IWXXM guidelines). MET agencies getting data translated should ask for feedback from their translation service providers – either real time or a regular log of issues.
- For future observation system upgrades start thinking about how to get AWOS (or the associated comms hardware) to provide IWXXM directly – to provide data straight into aviation systems.

— END OF SECTION —

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Appendix F – Terms of Reference and Work Plan

Appendix F – Terms of Reference and Work Plan

(Note: Proposed updates are indicated with ~~strikethrough~~ and highlighted text)

TERMS OF REFERENCE

The MET/IE WG is made up of experts from the following entities:

- APAC Regional OPMET Data Banks (RODBs): Brisbane, Nadi, Tokyo, Singapore and Bangkok;
- APAC Regional OPMET Centres (ROCs);
- Secure Aviation Data Information Service (SADIS) and WAFS Internet File System (WIFS) Provider States, United Kingdom and United States;
- Designated focal points for SIGMET tests and regional OPMET bulletin exchange (ROBEX);
- User representatives, such as the International Air Transport Association (IATA).

Representatives from any APAC States are welcome to join the MET/IE WG meetings. Core membership of the working group is as follows:

1. CORE MEMBERSHIP		
State or Org./Name	Title/Organization	Contact information
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Appendix F – Terms of Reference and Work Plan

1. CORE MEMBERSHIP		
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UNITED STATES Ms. Karen Shelton-Mur (WIFS)	Federal Aviation Administration, Senior Meteorologist, Programme Lead International, FAA Headquarters, 800 Independence Ave, S.W., Washington, D.C. 20591 UNITED STATES	Tel: +1 (202) 267 7985 Email: karen.shelton-mur@faa.gov
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VIETNAM (TBC)		
IATA (TBC)		
ICAO (Secretariat) Mr. Peter DUNDA	Regional Officer Aeronautical Meteorology/Environment International Civil Aviation Organization 252/1, Vibhavadi Rangsit Road, Ladyao, Chatuchak, Bangkok 10900 THAILAND	Tel: +66 (2) 537-8189 Ext. 153 Fax: +66 (2) 537-8199 Email: PDunda@icao.int

2. DESCRIPTION	
Objective	Increase quality, availability and timeliness of Meteorological Information needed for flight planning (efficiency) and in-flight re-planning (safety) in support of the services defined in ICAO Annex 3 and the transition to information services as defined in GANP.
Benefits	Increase in safety and efficiency (time and fuel savings), supporting environmental sustainability.
Functions of the group	Under guidance from the ICAO APAC Secretariat: a) Review the OPMET exchange schemes in the APAC and other regions and develop proposals for their optimization, taking into account the requirements by the aviation users and global OPMET exchange; b) Review and update of the procedures for inter-regional OPMET exchange and ensure the availability of the required APAC OPMET data for SADIS and WIFS; c) Monitor the quality, availability and timeliness of OPMET; d) Monitor and participate in inter- and intra-regional trials and implementation of aeronautical meteorological information exchange in support of the implementation of System Wide Information Management (SWIM); e) Develop standardized quality control, monitoring and management procedures related to exchange of OPMET; f) Promote awareness of the transition from TAC to IWXXM and in support of SWIM; g) Conduct regular regional IROG back-up and SIGMET tests; h) Provide support for the APAC MET exercises; i) Review and update the regional guidance material related to OPMET exchange, including relevant material on IWXXM, AMHS and SWIM; j) Liaise and consult with other appropriate bodies within ICAO and WMO dealing with communication and/or management aspects of the OPMET exchange; k) Coordinate and seek support from other enabling ICAO groups (e.g. SWIM TF, ACSICG, CRV OG, etc.) to support MET information exchange initiatives; and l) Provide advice and report to the MET Sub-group on the above issues for further co-ordination through the ICAO Secretariat with other appropriate bodies. m) Support implementation planning for the cessation of international TAC exchange, including identifying transitional risks and coordination with relevant ICAO bodies. n) Monitor regional readiness for IWXXM versions approved by ICAO METP/WG-MIE and promote timely upgrades to maintain interoperability.

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3. Communication Strategies				
Description	Target Audience	Delivery Method	Frequency / Date	Responsibility
Annual working group meeting	All APAC States	In person	Annual / March	Chair(s) and Secretariat
Interim Work Program Progress Report	MET/IE WG Members	Web-conference E-mail	Quarterly/as determined by Chair	Chair(s) and Secretariat
MET Chairs Coordination Meeting	Chairs of MET SG and its contributory working groups	Web-conference E-mail	Quarterly/as determined by MET SG Chairs	Chair(s) and Secretariat
General correspondence	MET/IE WG Members	E-mail	As required	MET/IE WG Members
New, specific proposal for action (WP)	MET/IE WG Meeting	Working Paper (MET/IE WG meeting)	Annually/submitted 28-days or more before the meeting (published 14-days or more before the meeting)	MET/IE WG Members or States
New, specific information (IP)	MET/IE WG Meeting	Information Paper (MET/IE WG meeting)	Annually/submitted 28-days or more before the meeting (published 14-days or more before the meeting)	MET/IE WG Members or States
Working Group Meeting Report	MET/IE WG Members and all APAC States	MET/IE WG Meeting Report	Annually/published 21-days or less after the meeting	Chair(s) and Secretariat
Working Group Progress Report	MET SG Meeting	Working Paper (MET SG meeting)	Annually/submitted 28-days or more before the meeting (published 14-days or more before the meeting)	Chair(s) and Secretariat

4. WORK PROGRAM			
Activity	Time Frame	Responsibility	Status
Activity 1: Quality, Availability and Timeliness of OPMET exchange	Ongoing	MET/IE WG	
Activity 2: SIGMET and Advisory Tests	Ongoing	MET/IE WG	
Activity 3: IROG Backup Tests	Ongoing		
Activity 4: Regional guidance material related to data exchange	Ongoing	MET/IE WG	
Activity 5: MET information exchange scheme	Ongoing	MET/IE WG	
Activity 6: MET information in SWIM	Ongoing	MET/IE WG	

5. WORK PLAN			
Activity / Milestone	Accountability	Date	Status
Activity 1: Quality, Availability and Timeliness of OPMET exchange			
Activity 1.1: Monitor and collate OPMET data.	RODBs and IATA	Annually Nov	
Activity 1.2: Assess RODB OPMET reception.	RODB Bangkok	Annually Jan	
Activity 1.3: Analyse data and share results with RODBs	RODB Bangkok	Annually Jan	
Activity 1.4: Prepare paper report results to MET/IE WG meeting	RODB Bangkok	Annually Feb	
Activity 1.5: Report summary of OPMET quality, availability and timeliness results to MET SG (via annual MET/IE WG report)	Chair	Annually before MET SG	
Activity 1.6: Provide support for States to support corrective actions if requested.	RODBs	As required	
Activity 2: SIGMET and Advisory Tests			
Activity 2.1: Review SIGMET Test procedures	MET/IE WG	Annually Aug	
Activity 2.2: State Letter regarding SIGMET Tests	Secretariat	Annually Sep	
Activity 2.3: Email participating MWOs, RODBs, VAACs, TCACs and SVOs regarding SIGMET Tests	Secretariat	Annually	Last Wed in Oct
Activity 2.4: Conduct and collate data for TC SIGMET Tests	RODBs	Annually	2 nd Wed in Nov
Activity 2.5: Conduct and collate data for VA SIGMET Tests	RODBs	Annually	3 rd Wed in Nov

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5. WORK PLAN			
Activity / Milestone	Accountability	Date	Status
Activity 2.6: Conduct and collate data for other SIGMET Tests	RODBs	Annually	4 th Wed in Nov
Activity 2.7: Analyse test data	RODB Singapore and Tokyo	Annually Jan	
Activity 2.8: Report to MET/IE WG	RODB Singapore and Tokyo	Annually Mar	
Activity 2.9: Report on SIGMET Test Results to MET SG (via annual MET/IE WG report).	Chair	Annually May	
Activity 3: IROG Back-up Tests			
Activity 3.1: Update IROG Back-up Procedures in ROBEX Handbook, including support for IWXXM.	Secretariat	As required	
Activity 3.2: Identify list of OPMET to monitor.	IROG Bangkok and Singapore	Annually Jul/Aug	
Activity 3.3: Conduct IROG Back-up Test of Bangkok and analyse results	IROG Bangkok and Singapore	Annually Sept/Oct	
Activity 3.4: Conduct IROG Back-up Test of Singapore and analyse results	IROG Bangkok and Singapore	Annually Sep/Oct	
Activity 3.5: Report to MET/IE WG	IROG Bangkok and Singapore	Annually Mar	
Activity 4: Regional guidance material related to data exchange			
Activity 4.1: Propose updates to the ROBEX Handbook	MET/IE WG and Secretariat	As required	
Activity 4.2: Share draft updates to the ROBEX Handbook	Secretariat	Annually, at least one month before the MET/IE WG and MET SG	
Activity 4.3: Publish updates to the ROBEX Handbook	Secretariat	Annually Two weeks after the MET/IE WG and MET SG	
Activity 5: MET Information Exchange Scheme			
Activity 5.1: Review ROBEX Scheme diagram	All RODBs, Secretariat	Annually May	
Activity 5.2: Maintain IWXXM online register	Australia, Hong Kong China and Secretariat	As required	
Activity 5.3: Monitor the availability of AMHS with FTBP readiness	MET/IE WG	As required	
Activity 6: MET information in SWIM			
Activity 6.1: Provide education and develop guidance to support States' implementation of MET information services	MET/IE WG	As required	

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