

International Civil Aviation Organization

ICAO

WORKING PAPER (WP/04)
**ICAO Asia and Pacific (APAC)
Twenty-Ninth Meeting of the Meteorology Sub-Group
(MET SG/29)**

Bangkok, Thailand, 18 - 22 August 2025

Agenda Item 2: Review outcomes of related meetings**REVIEW OUTCOMES FROM MET/IE WG/23**

(Presented by the Chairs of MET/IE WG)

SUMMARY

This paper presents a summary of the 23rd meeting of the Meteorological Information Exchange Working Group (MET/IE WG), held 25 – 28 March 2025. It includes an updated action list, revised terms of reference and work plan of the MET/IE WG.

1. INTRODUCTION

1.1 The ICAO Asia and Pacific (APAC) Regional Office hosted the Twenty-Third Meeting of the Meteorological Information Exchange Working Group (MET/IE WG/23) in Bangkok, Thailand, from 25 – 28 March 2025.

1.2 The Meeting included a joint session with the Twelfth Meeting of the Aeronautical Communication Services Implementation Coordination Group (ACSICG/12) on 26 March 2025 to discuss agenda items of interest to both groups jointly.

1.3 The meeting was attended by 65 participants from 19 States / Special Administrative Regions, and ICAO. The Meeting Chair was Mr Tim Hailes, National Manager, Transport Customer Engagement, Bureau of Meteorology, Australia. Mr Marco Mang-Hin Kok, Acting 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.

1.4 The Meeting considered nineteen (19) Working Papers (WPs), seven (7) Information Papers (IPs), three (3) Flimsies and one (1) Slide Presentation (SP) and an additional three (3) WPs and a one (1) slide presentation were discussed in the conjoint session between MET/IE WG/23 and ACSICG/12 on the third day.

2. DISCUSSION

2.1 A copy of the full meeting report, and all related meeting documentation, is available at the following website: <https://www.icao.int/APAC/Meetings/Pages/2025-MET-IE-WG-23.aspx>

2.2 The Meeting adopted the agenda as listed below:

- Agenda Item 1: Organizational matters
- Agenda Item 2: Review of follow-up action 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 SWIM
- Agenda Item 6: Meteorological information exchange in IWXXM form
- Agenda Item 6.1: Readiness of AMHS to support IWXXM
(to be discussed in the conjoint session with ACSICG/12)
- Agenda Item 7: Future work program and terms of reference
- Agenda Item 8: Any other business
- Agenda Item 9: Next meeting

Agenda Item 2: Review of follow-up from previous meetings

2.3 The Meeting reviewed the status of the MET/IE WG List of Actions, including the seventeen (17) new action items agreed upon at the MET/IE WG/22 meeting and nineteen (19) unresolved action items from previous MET/IE WG meetings. The Meeting agreed that twelve (12) of the MET/IE WG/22 action items were completed. In addition, the Meeting considered that six (6) of the previously unresolved action items from previous meetings were completed or had been superseded.

2.4 The meeting agreed to revise the target dates on the Secretariat's uncompleted actions on ROBEX Handbook and ANP updates for completion before the upcoming MET SG meeting in August 2025.

2.5 The Chair expressed concerns that the late availability of Secretariat meeting papers continued to negatively impact the effectiveness of the Meeting. Similarly, the lack of progress on several Secretariat actions, including the quarterly coordination meetings of the MET/IE WG members, impeded progress of the MET/IE WG work plan.

2.6 The Meeting recalled an open Secretariat action to document the steps States should take to effect changes to the ROBEX scheme and notify States of changes to MET service. To facilitate progress on updates to the ROBEX Handbook, SIGMET Guide, ANP and other relevant documentation, the Meeting revised the above action item and requested the Secretariat with assistance from the Chair and New Zealand, to document a process to clarify how States should initiate required changes to all the relevant regional guidance documents (Refer to a separate MET SG/29 paper on this matter).

2.7 The updated MET/IE WG List of Actions is presented in Appendix A.

2.8 The meeting reviewed the MET SG/28 outcomes. The meeting noted that issues related to the action proposed in MET SG/28 Conclusion 28-03: Review of APAC Region IWXXM Implementation Status/Readiness, would be discussed in the conjoint session with ACSICG/12. In addition, the Meeting noted that MET SG/28 had assigned MET/IE WG the responsibility for action item 28/06: Consider the feasibility of including WIFS in the annual SIGMET tests. The Meeting requested the SIGMET test focal points, Japan and Singapore, to provide a response to the action item for consideration by MET SG/29.

2.9 The meeting also discussed the outcomes from APANPIRG/35 and relevant matters will be discussed in WP/02.

Agenda Item 3: Quality control, monitoring and management of meteorological information exchange

SIGMET Tests

2.10 The WS/LS SIGMET Test 2024 was conducted on 27 November 2024. Reception summaries were provided by APAC RODBs and ROC London. 24 out of 29 states issued WS SIGMET test messages.

2.11 The participation rate was 83%, lower than 2022 and 2023 but higher than 2020 and 2021. The issue concerning incorrect use of the priority indicator for the test messages persisted in the WS SIGMET test 2024.

2.12 Ten states also disseminated LS SIGMET test (IWXXM format) messages. The Meeting discussed the value of including details of IWXXM reports, and Singapore agreed to include the IWXXM results for the next meeting.

2.13 The WC/LY and WV/LV SIGMET Tests 2024 were conducted on 13 and 20 November 2024. Four RODBs (Bangkok, Brisbane, Singapore, and Nadi) and WAFC London sent summaries of bulletins received during the tests to Tokyo. The overall availability of WC test bulletins was 74%, lower than 2023's 79%. The availability of WV test bulletins was 86%, lower than 2023's 93%.

2.14 Some States did not participate due to active TCs or volcanic activity. Incorrect use of priority and WMO headings persisted. Some States issued SIGMET messages in IWXXM format, but most are not ready yet.

OPMET Monitoring

2.15 The annual Asia-Pacific OPMET monitoring was conducted in November 2024. Availability and timeliness calculations were based on the new MET SG approved performance indices. Appendices in WP/16 detail performance indices per aerodrome for TAC and IWXXM, aerodromes with zero performance indices, indices per ROC, and IWXXM performance indices at RODB Bangkok for METAR/TAF, SPECI, SIGMET/AIRMET, and Advisories.

2.16 The Meeting noted the need for further investigation and analysis of the results in WP/16 where PIs were below the agreed threshold.

2.17 Since November 2022, RODB Bangkok has analyzed IWXXM statistics based on package versions. Statistics calculated using package versions can misinterpret identical product versions as being different. For example, IWXXM METAR v2021-2 and v2023-1 both have version 3.1.0. RODB Bangkok now uses individual IWXXM product versions for better monitoring insights. WP/13 highlights these versions, with results presented as Performance Indices (WP/13, Appendix A) and IWXXM-specific statistics (WP/13, Appendices B to E). This approach aims to offer a clearer view of the monitoring results.

2.18 The Meeting noted that Thailand will further investigate the reason for apparent discrepancies in the performance indices and IWXXM-specific statistics. The meeting requested Thailand to review the PI algorithms to increase the independence of Availability and Timeliness results.

2.19 Further, when calculating OPMET performance indices, the Meeting decided to adopt IWXXM product versions rather than package versions and recorded the following Decision:

Decision MET/IE WG/23-03 – Use of IWXXM Product Version in OPMET Performance Indices

What: 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.	Expected impact: <input type="checkbox"/> Political / Global <input type="checkbox"/> Inter -Regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical
Why: 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.	Follow-up: <input type="checkbox"/> Required from States
When: As soon as practicable	Status: Adopted by MET/IE WG
Who: <input checked="" type="checkbox"/> Sub Groups <input type="checkbox"/> RASG-APAC <input type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other:	

2.20 China presented details of new quality control (QC) procedures they have implemented for aviation meteorological information both produced and received, which highlights opportunities to improve OPMET from other States. The Meeting encouraged China to extract and share relevant details with ROCs to enhance the quality of OPMET exchanges in the region

2.21 Nadi RODB presented a paper highlighting gaps in the data they receive from APAC ROCs. They paper included requests for updates to the ROBEX Handbook and action by ROCs to align exchange with the ROBEX Handbook.

2.22 The Meeting emphasized the importance of maintaining up-to-date ROBEX Focal Point information to help States address ROBEX issues effectively. Each RODB was reminded to ensure reliable operational points of contact with IROGs and their NOCs under their area of responsibility, and ROCs should maintain strong communication links with their respective NOCs.

Backup Procedures

2.23 Thailand and Singapore presented on outcomes of their Inter-Regional OPMET Gateway (IROG) back-up exercises which demonstrated that the two IROGs successfully backup one another and exchanged 100% of the required data.

2.24 The Meeting requested the IROG Provider States 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.

Agenda Item 4: Guidance material related to meteorological information exchange

2.25 The ROBEX Handbook was last updated to the Seventeenth Edition in July 2024, based on the outcomes from the MET SG/28. The ICAO APAC Office subsequently published this Seventeenth Edition of the ROBEX Handbook on its website.

2.26 The Meeting reviewed and considered further updates as necessary. Fiji identified necessary updates to indicate aerodrome meteorological services not available for the full 24 hours of the day. New Zealand advised it can assist in the Pacific Region through collaboration with the PIAWS Panel.

2.27 The Meeting noted that some obsolete OPMET-related documents (e.g., FASID Tables) on the ICAO APAC Office website are not clearly marked as “for historic reference purposes,” which can lead to misinterpretation of current operational requirements. Therefore, the Meeting requested the Secretariat to ensure these historic documents are clearly identified as obsolete and non-operational.

2.28 Additionally, the Meeting agreed to 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.

Draft Conclusion MET/IE WG/23-01 – Management of obsolete planning and implementation guidance documents on the ICAO APAC Office website	
What: That, ICAO take appropriate action to manage (clearly identified as obsolete or remove) the archive of obsolete and historic planning and implementation guidance documents on its website, including those related to MET and other AN fields.	Expected impact: <input type="checkbox"/> Political / Global <input type="checkbox"/> Inter -Regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical
Why: Obsolete OPMET- and ANS-related documents (e.g., FASID Tables) that are accessible on the ICAO APAC Office website are not clearly identified as obsolete and non-operational information for historic reference purposes only. Therefore, they could be understood by readers to represent the current operational requirements.	Follow-up: <input type="checkbox"/> Required from States
When: As soon as practicable	Status: Draft to be adopted by MET SG
Who: <input type="checkbox"/> Sub Groups <input type="checkbox"/> RASG-APAC <input type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other:	

2.29 Republic of Korea, Hong Kong China, Fiji, Japan, Malaysia, and Singapore, noted that their ROBEX Focal Point information in (ROBEX Handbook) Appendix I was outdated. The Meeting agreed that these States should inform the Secretariat of the necessary updates, and the Secretariat should contact other concerned States for possible updates.

2.30 The Meeting also noted that the Secretariat would prepare previously proposed but uncompleted updates to the ROBEX Handbook for review and possible adoption by MET SG/29.

2.31 The meeting was reminded that Amendment 82 to ICAO Annex 3 would require VONA dissemination via aeronautical fixed services (AFS). An ad hoc group (Australia, Japan, New Zealand) was tasked with developing updates to the ROBEX Handbook. This group discussed the bulletin header structure at the 12th METP WG-MIE Meeting and subsequent changes to VONA headers were agreed.

2.32 It was noted that not all State volcano observatories (SVOs) have AFS access. It was agreed that they can use their State's National OPMET Centre (NOC) identifier or request a new one from ICAO.

2.33 The Meeting agreed to the updates presented regarding VONA dissemination, and requested the Secretariat to publish these updates in the ROBEX Handbook, 18th Edition, dated March 2025.

2.34 The Meeting also emphasized the urgent need to advance the agreed action for designating State Volcano Observatories in the ANP (action MET/S WG/10-21 refers; transferred to MET SG List of Actions).

2.35 Hong Kong ROC proposed to updates to ROBEX Handbook due to the addition of three aerodromes to its METAR/SPECI and TAF bulletins from 0200 UTC on 17 April 2025. These aerodromes are SOUTH COTABATO/Tambler Gen. Santos International Airport (RPMR) and AKLAN/Kalibo International Airport (RPVK) in the Philippines, and Penghu Airport (RCQC) in Taipei FIR. The Meeting agreed to include these updates in the ROBEX Handbook, 18th Edition, dated March 2025.

2.36 Hong Kong China and Australia presented updates to the "IWXXM Implementation in APAC Region – FAQs". The Meeting endorsed the amendments and requested the Secretariat to publish the updated version of the FAQs on the ICAO APAC Office website.

Agenda Item 5: Meteorological information exchange in SWIM

2.37 The SWIM TF Task Lead from Hong Kong, China presented the latest draft list of business functionalities for APAC Common SWIM Information Services which cover:

- APAC Common SWIM Flight Information Services
- APAC Common SWIM Aeronautical Information Services
- APAC Common SWIM Meteorological Information Services
- APAC Common SWIM Surveillance Information Services.

2.38 It was noted that subsequential updates to the document would be required to reflect outcomes from the recent METP/6 meeting and the information service priorities be revisited. The Meeting agreed that proposed updates be prepared for further review and consideration by the SWIM TF, including consistent use of the term “information service”.

Agenda Item 6: Meteorological information exchange in IWXXM form

2.39 Hong Kong, China provided an update on the latest development and future plans for the IWXXM. The paper advised that the approved IWXXM schemas, supporting Amendment 82 to ICAO Annex 3, is expected to be available in November 2025. In the interim a release candidate 2025-2RC1 is available for testing.

2.40 The meeting acknowledged the necessity for a notification process for IWXXM updates and requested the Secretariat to inform the WMO of the discussion. The meeting agreed to 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.

Draft Conclusion MET/IE WG/23-02 – IWXXM update notification process	
What: That, ICAO in coordination with WMO take appropriate action to initiate an IWXXM update notification process for all relevant stakeholders, including IWXXM consumers and system vendors.	Expected impact: <input type="checkbox"/> Political / Global <input type="checkbox"/> Inter -Regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical
Why: WMO develops new versions of IWXXM to affect improvements and support the evolution of ICAO Annex 3 SARPs. To avoid the potential impact on operations due to IWXXM version compatibility issues, States must upgrade the systems for generating, exchanging and consuming IWXXM reports to support the IWXXM version that complies with the latest amendment to Annex 3.	Follow-up: <input type="checkbox"/> Required from States
When: As soon as practicable	Status: Draft to be adopted by MET SG
Who: <input type="checkbox"/> Sub Groups <input type="checkbox"/> RASG-APAC <input type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input checked="" type="checkbox"/> ICAO HQ <input type="checkbox"/> Other:	

2.41 The Republic of Korea presented a paper which described a project to provide high-resolution meteorological information for all flight stages, enhancing Air Traffic Management (ATM) decision-making. The paper invited discussions and information sharing on establishing an IWXXM meteorological service that supports TBO.

2.42 The Chair noted that the new WAFS SIGWX IWXXM format would likely address most en-route weather requirements for supporting TBO. Additionally, the future aerodrome meteorological observation information service and aerodrome meteorological forecast information service, expected by 2030, will address aerodrome-related needs.

2.43 The meeting also received updates on the status and plans for IWXXM exchange from Thailand, Vietnam, Hong Kong China, Macao China and the Philippines.

Agenda Item 6.1: Readiness of AMHS to support IWXXM (conjoint session)

2.44 The Meeting recalled that during the joint session of ACSICS/11 and MET IE/22 in 2024, the meeting acknowledged the necessity to support the prompt implementation of capable primary and, where relevant, secondary links for the exchange of IWXXM messages. The ACSICG/11 and MET IE WG/22 joint sessions formed an ad-hoc group of operational communications experts (comprising members from Australia, Fiji, Hong Kong, China, Singapore, and the USA) to develop educational material to manage the distribution of IWXXM information when primary AMHS link failure occurs.

2.45 The Meeting reviewed proposed educational material. It was recommended that additional input from other APAC States/Administrations be needed to improve the document further. It was agreed that current material is however highly valuable and it should be made available for States' reference.

2.46 The Meeting adopted the following draft conclusion and agreed that whilst it was relevant to both MET SG and CNS SG, it was most relevant and therefore would be considered by CNS SG/29:

Draft Conclusion ACSICG/12/05- Educational material to manage the distribution of IWXXM information for COMM experts in the event of primary link failure		
What:	The educational material to support COM/MET experts in managing the distribution of IWXXM in case of primary link failure, provided in Appendix F (of the ACSICG/12 report), be adopted as a living document.	Expected impact: <input type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical
Why:	Educational material that identifies the required link capabilities to maintain IWXXM message distribution in the event of a primary link failure is necessary for uninterrupted service.	Follow-up: <input type="checkbox"/> Required from States
When:	28-Mar-25	Status: Draft to be adopted by Subgroup
Who:	<input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other: ACSICG	

2.47 It was agreed that after the adoption of the document by CNS SG/29 (which occurred 16 June 2025), the document will be uploaded on the ICAO APAC e-docs portal under CNS->COM and MET.

2.48 It was further agreed that the ICAO Secretariat will compile comments received from members for further review by the Ad-hoc group, and the Ad-hoc group will prepare revised educational material incorporating all received comments and present it to the next ACSICG meeting.

2.49 It was recalled that during the previous joint session in 2024, the meeting acknowledged the necessity to have primary and, where relevant, secondary links for the exchange of IWXXM messages. A team of communications and meteorological experts from Australia, Hong Kong China, Fiji and Singapore (lead) volunteered to create a checklist to facilitate the operational implementation of IWXXM message exchange.

2.50 The Meeting reviewed and modified the proposed checklist which included:

- (a) Preparation and System Requirements;
- (b) Network Configuration;
- (c) Testing and Documentation; and
- (d) IWXXM Data Generation and Quality Control.

2.51 It was agreed that the checklist be adopted as a living document and updated further based on feedback. The Meeting endorsed the following draft conclusion for consideration by CNS SG/29:

Draft Conclusion ACSICG/12/06- Checklist of steps required to operational IWXXM exchange		
What: A checklist to facilitate the operational implementation of the IWXXM message exchange, provided in Appendix G (of the ACSICG/12 Report), be adopted as a living document.	Expected impact: <input type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical	
Why: To support the prompt implementation of capable primary and, where relevant, secondary links for the exchange of IWXXM messages	Follow-up:	<input type="checkbox"/> Required from States
When: 28-Mar-25	Status:	Draft to be adopted by Subgroup
Who: <input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input checked="" type="checkbox"/> Other: ACSICG		

2.52 It was also agreed that after the adoption of the document by CNS SG/29, the document will be uploaded on the [ICAO APAC e-docs webpage](#) under CNS->COM and MET.

2.53 The meeting also discussed a number of topics including:

- a) a paper prepared by the Secretariat on the IWXXM implementation status and the Asia/Pacific Region's readiness to fully implement IWXXM data exchange. The meeting encouraged States/Administrations to review and update the IWXXM implementation status as required.
- b) the APANPIRG/34 recommendation to incorporate IWXXM implementation into the identification, assessment, and reporting of air navigation deficiencies as discussed under Agenda Item 3.
- c) Fiji AMHS upgrade to support IWXXM
- d) *Online Register of APAC IWXXM Exchange Status* which can be accessed on the [ICAO APAC e-docs webpage](#) under MET.

2.54 The afternoon session included a brainstorming session on Transitioning Met Services, during which the following agenda items were discussed:

- Operational exchange of IWXXM in a hybrid AMHS/SWIM environment
- Use of the Internet for MET-SWIM
- A list of MET-SWIM information services which will be/preferred to be transmitted over CRV

2.55 Further details on this discussion can be found on the meeting website and MET/IE WG report.

2.56 The conjoint session wrapped with meeting participants shared the value of conducting the joint session. However, it was stated that there is a need for a joint session of MET and SWIM experts in the future. Therefore, it was agreed that an offline discussion would be done among ACSICG, MET/IE WG and SWIM TF Chairs and Secretariat for agreement on a way forward for an effective way of close collaboration among these groups to discuss various common topics in future joint Meetings.

Agenda Item 7: Future work program and terms of reference

2.57 The MET/IE WG members present in the Meeting reviewed and proposed updates to the MET/IE WG Terms of Reference and Work Program. The proposed updates are presented in Appendix B to this paper.

Agenda Item 8: Any other business

2.58 No other business items were raised.

Agenda Item 9: Next meeting

2.59 The Meeting noted that the Chairs and Secretariat in consultation with the ACSICG and SWIM/TF would consider the options of conducting MET/IE WG/24 in 2026 in conjunction with either the ACSICG or SWIM/TF. The ACSICG is considering their meeting being hosted in Fiji and should a decision be made to conduct a conjoint meeting, MET/IE WG/24 may be held in Fiji also. A proposal for the MET/IE WG/24 (2026) meeting will be discussed at MET SG/29.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this paper;
- b) note the proposed Draft Conclusions in para. 2.46, and 2.51 were endorsed by CNS SG/29;
- c) consider the proposed Draft Conclusions in para. 2.28, and 2.40; and
- d) propose further updates, as necessary, to the Action List in Appendix A; and Terms of Reference and Work Programme of MET/IE WG in Appendix B.

MET SG/29
Appendix A to WP/04

APPENDIX A — List of Actions (MET/IE WG)

New action items recorded by MET/IE WG/23

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	
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	
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	
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	
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	
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	
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	
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	
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	

MET SG/29
Appendix A to WP/04

ACTION ITEM	DESCRIPTION	BY DATE	RESPONSIBILITY	STATUS/REMARKS
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	
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	
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	
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	
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	

Action items recorded by MET/IE WG/22

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

ACTION ITEM	DESCRIPTION	BY DATE	RESPONSIBILITY	STATUS/REMARKS
MET/IE WG/22 01	<u>MET/IE WG meeting – agenda</u> Consider incorporating the joint session (MET/IE WG and ACSICG) in the MET/IE WG meeting agenda. [Ref: Report of MET/IE WG/22, para. 1.2.]	3 months before MET/IE WG/23	Secretariat and Chairs	COMPLETED [MET/IE WG/23 Invitation and Agenda] TO COMMENCE
MET/IE WG/22 02	<u>IROG backup exercise – IWXXM data</u> Provide an update on conducting an IROG backup exercise for IWXXM data. [Ref: Report of MET/IE WG/22, para. 2.3.]	1 month before MET/IE WG/23	Singapore and Thailand	COMPLETED [MET/IE WG/23-WP/09, WP/14] TO COMMENCE
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

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ACTION ITEM	DESCRIPTION	BY DATE	RESPONSIBILITY	STATUS/REMARKS
MET/IE WG/22 04	ROBEX Handbook updates – criteria for IWXXM monitoring Develop consequential updates to the ROBEX Handbook to facilitate OPMET monitoring to identify IWXXM dissemination that does not meet availability and timeliness thresholds of ninety-five per cent (95%) and additional criteria to ensure the messages are well-formed and (where translated from TAC) properly translated. [Ref: Report of MET/IE WG/22, para. 3.4.]	1 month before MET SG/28	Ad hoc group on Performance Indicators (PIs) [Ref: MET/IE WG/21 action item 07]	COMPLETED [ROBEX HB, 17 TH Ed.] TO COMMENCE
MET/IE WG/22 05	METAR bulletin dissemination – resolving the issue at ROC Brisbane Investigate a quick resolution to the METAR bulletin dissemination issue at ROC Brisbane (as presented in MET/IE WG/22 WP/07) and provide an update for inclusion in the MET/IE WG report to MET SG. [Ref: Report of MET/IE WG/22, para. 3.8.]	1 month before MET SG/28	Australia	COMPLETED [MET SG/28-WP/03, para 2.12] TO COMMENCE
MET/IE WG/22 06	SIGMET Guide updates – SIGMET test procedures for IWXXM a) Report the problem concerning the dissemination of SIGMET test messages in IWXXM form (as presented in MET/IE WG/22 WP/25) to the ad hoc group on the SIGMET Guide, and b) propose an appropriate update to the SIGMET test procedures in the SIGMET Guide to address the IWXXM test message issues. [Ref: Report of MET/IE WG/22, para. 3.42.]	a) Apr 2024, b) 1 month before MET SG/28	a) Secretariat, and b) ad hoc group on the SIGMET Guide	COMPLETED [SIGMET Guide, 11th Ed] TO COMMENCE
MET/IE WG/22 07	IWXXM dissemination – issues for non-ROBEX locations 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 TO COMMENCE
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 MET SG/28	Secretariat	IN PROGRESS TO COMMENCE
MET/IE WG/22 10	ROBEX Handbook updates – VONA dissemination Develop proposed updates to the ROBEX Handbook to facilitate the dissemination of VONA via the AFS, as required by the proposed amendment to Annex 3. [Ref: Report of MET/IE WG/22, para. 6.11.]	1 month before MET SG/28	Ad hoc group (NZL, AUS, JPN)	COMPLETED [MET/IE WG/23-WP/11] TO COMMENCE
MET/IE WG/22 11	ROBEX Handbook updates – ROC IWXXM exchange Include the changes concerning ROC responsibilities for IWXXM exchange (as presented in MET/IE WG/22 WP/23) with the next proposed updates to the ROBEX Handbook. [Ref: Report of MET/IE WG/22, para. 6.13.]	1 month before MET SG/28	Secretariat, AUS and HKG	COMPLETED [MET SG/28-Flimsy/02, MET SG/28-ACTION 28/19, ROBEX HB 17 th Ed] TO COMMENCE
MET/IE WG/22 12	ROBEX Handbook updates – METNO guidance Include within the proposed changes (as presented in MET/IE WG/22 WP/24), distribution to IROG partners in other regions, further refinements on the contents regarding the METNO focal points (ensuring clear distinction to the purpose of the ROBEX focal points) and METNO message header with the next proposed updates to the ROBEX Handbook. [Ref: Report of MET/IE WG/22, para. 6.15.]	1 month before MET SG/28	HKG, NZL and AUS	COMPLETED [MET SG/28, WP/09, Decision MET SG/28-09, MET SG/28-ACTION 28/19, ROBEX HB 17 th Ed] TO COMMENCE
MET/IE WG/22 13	IWXXM Guidelines document – availability on ICAO APAC website Consider publishing the <i>Guidelines for the Implementation of OPMET data exchange using IWXXM</i> , Version 5, on the CNS section of the ICAO APAC Office eDocuments webpage. [Ref: Report of MET/IE WG/22, para. 8.16.]	April 2024	Secretariat	COMPLETED [https://www.icao.int/APAC/Pages/eDocs.aspx] TO COMMENCE

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ACTION ITEM	DESCRIPTION	BY DATE	RESPONSIBILITY	STATUS/REMARKS
MET/IE WG/22 14	IWXXM distribution – guidance when primary AMHS fails Develop educational material on managing the distribution of IWXXM information when primary AMHS link failure occurs. [Ref: Report of MET/IE WG/22, para. 8.25.]	1 month before MET/IE WG/23	Ad hoc group (AUS, FJI, HKG, SGP and USA)	COMPLETED [MET/IE WG/23-WP/10, ACSICG/12-WP/10] TO COMMENCE
MET/IE WG/22 15	IWXXM operational exchange – checklist Develop a checklist of steps required to facilitate operational IWXXM exchange. [Ref: Report of MET/IE WG/22, para. 8.27.]	1 month before MET/IE WG/23	Ad hoc group (AUS, FJI, HKG and SGP)	COMPLETED [ACSICG/12-WP/11] TO COMMENCE
MET/IE WG/22 16	MET/IE WG and ACSICG joint session – duration and discussion Consider the duration of and prioritise the materials presented and discussed in the joint session (MET/IE WG and ACSICG) at future meetings. [Ref: Report of MET/IE WG/22, para. 8.33.]	3 months before MET/IE WG/23	Secretariat and Chairs	COMPLETED [review conjoint session outcomes] TO COMMENCE
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 TO COMMENCE

Unresolved action items recorded by MET/IE WG/21

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

ACTION ITEM	DESCRIPTION	BY DATE	RESPONSIBILITY	STATUS/REMARKS
MET/IE WG/21 02	The meeting requested IROGs to provide updates for each of the interregional circuits in the IWXXM online register. [Ref: MET/IE WG/21 Report, para 4.13] Ref: MET/IE WG/22, WP/13	MET SG/27	APAC IROGs	COMPLETED [MET/IE WG/23-Flimsy/02] TO COMMENCE
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 MET/IE WG/22	Secretariat	IN PROGRESS TO COMMENCE
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 TO COMMENCE

Unresolved action items recorded by MET/IE WG/20

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

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 Before MET SG/27	Secretariat	IN PROGRESS ANP PfA pending circulation by the Secretariat;
MET/IE WG/20 03	Provide contact details for IROG Jeddah (Saudi Arabia) and IROG Johannesburg (South Africa) to the members from Thailand to discuss their support for IWXXM and AMHS/FTBP and the timing for the testing and implementation of the inter-regional IWXXM exchange. [Ref: Report of MET/IE WG/20, para. 4.15.]	Before MET SG/27	Secretariat, in coordination with participants from Thailand	COMPLETED IN-PROGRESS

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ACTION ITEM	DESCRIPTION	BY DATE	RESPONSIBILITY	STATUS/REMARKS
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. <i>[Ref: Report of MET/IE WG/20, para. 6.9.]</i> Ref: MET SG/27, WP/14 - Review of the APAC ANP	1 month before MET SG/29 Next ROBEX Handbook update	Secretariat, in coordination with participants from Indonesia	IN PROGRESS ANP PfA pending circulation by the Secretariat
MET/IE WG/20 12	Document the steps States should take to: a) Effect changes to the ROBEX scheme; and b) Notify States of changes to MET service. <i>[Ref: Report of MET/IE WG/20, para. 6.15.]</i>	Before MET SG/27	Secretariat	SUPERSEDED [ACTION MET/IE WG/23-01] IN PROGRESS
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 Before MET SG/27	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

Unresolved action items recorded by MET/IE WG/19

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

ACTION ITEM	DESCRIPTION	BY DATE	RESPONSIBILITY	STATUS/REMARKS
05	Propose updates to the ROBEX Handbook: to include information on the (KWBC) bulletins containing Pago Pago METAR and TAF [ref: para. 4.3.] Ref: MET SG/27, WP/09 - ROBEX HB UPDATES	1 month before MET SG/29 Before MET SG/27	Secretariat	SUPERSEDED [MET/IE WG ACTION 23-08] IN PROGRESS

Unresolved action items recorded by MET/IE WG/18 and MET/S WG/10

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

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 Before MET SG/27	Secretariat	IN PROGRESS Ref: MET/IE WG, 5. Work Plan, Activity 6

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ACTION ITEM	DESCRIPTION	BY DATE	RESPONSIBILITY	STATUS/REMARKS
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 Before MET SG/27	Vietnam and Thailand	IN PROGRESS Ref: MET/IE WG, 5. Work Plan, Activity 6
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 Before MET SG/27	Secretariat and Indonesia	IN PROGRESS Ref: MET/IE WG, 5. Work Plan, Activity 6

Unresolved action items recorded by MET/IE WG/17

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

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 Before MET SG/27	Secretariat	IN PROGRESS
17/3	Coordinate all necessary notifications concerning the planned provision by China of OPMET information for the new Beijing Daxing International Airport, from 15 August 2019, including the following: (a) updates to the ROBEX Handbook and notification to States via “METNO”; and (b) APAC ANP, including AOP and MET tables. <i>[Report of MET/IE WG/17, para. 3.6 – 3.8, refers]</i>	Before MET SG/27	China and Secretariat	(a) COMPLETED; (b) CLOSED [China informed MET/IE WG/23 that it has not proposed to add Beijing Daxing International Airport to the APAC ANP Tables AOP] IN PROGRESS
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 Before MET SG/27	Secretariat and Australia	IN PROGRESS ANP Table MET II-1 pending update

Unresolved action items recorded by ROBEX WG/13

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

ACTION ITEM	DESCRIPTION	BY DATE	RESPONSIBILITY	STATUS/REMARKS
13/7	Investigate feasibility of including provisions in the regional guidance material related to the issuance of routine TAF at intervals of three (3) hours; present draft material to MET SG/21 [Ref: ROBEX WG/13 Decision 13/7].	Before MET SG/27	Secretariat and ROBEX WG	CLOSED IN PROGRESS Coordinate necessary follow-up through the ICAO ANP working group [Ref: MET/IE WG/16 Report]

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ACTION ITEM	DESCRIPTION	BY DATE	RESPONSIBILTY	STATUS/ REMARKS
				para. 2.9].

APPENDIX B — MET/IE WG Terms of Reference and Work Plan

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

ICAO APAC MET/IE WG – TERMS OF REFERENCE AND WORK PLAN

TERMS OF REFERENCE

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

- APAC Regional OPMET Data Banks (RODBs): Brisbane, Nadi, Tokyo, Singapore and Bangkok;
- APAC Regional OPMET Centres (ROCs);
- ~~World Area Forecast Centres (WAFCs), London and Washington~~
- Secure Aviation Data Information Service (SADIS) and WAFS Internet File System (WIFS) Provider States, United Kingdom and United States;
- ~~APAC Volcanic Ash Advisory Centres (VAACs): Darwin, Tokyo and Wellington~~
- Designated focal points for SIGMET tests and regional OPMET bulletin exchange (ROBEX);
- ~~Pacific Islands Aviation Weather Services (PIAWS) Panel; and~~
- **User representatives, such as the** International Air Transport Association (IATA).

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State or Org./Name	Title/Organization	Contact information
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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 Global Air Navigation Plan (GANP) framework and the Aviation System Block Upgrade (ASBUs) methodology services defined in ICAO Annex 3.
Benefits	Increase in safety and efficiency (time and fuel savings), supporting environmental sustainability.
Functions of the group	Under guidance from the ICAO APAC Secretariat: <ul style="list-style-type: none"> 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) Monitoring the format and quality, availability and timeliness of OPMET messages; d) Monitor and participate in inter- and intra-regional trials of aeronautical meteorological information exchange in support of the implementation of IWXXM and System Wide Information Management (SWIM); e) Conduct trials and develop standardized quality control, monitoring and management procedures related to exchange of IWXXM and TAC OPMET information; f) Participate in the implementation and promote awareness of the transition to digital exchange of OPMET (IWXXM) and System Wide Information Management (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.

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

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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 2021–2026	MET/IE WG	
Activity 6: MET information in SWIM	Ongoing 2021–2026		

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: Score Assess RODB OPMET reception (availability and timeliness) against 95% thresholds.	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: Inform States of non-compliance and corrective actions.	Secretariat	Annually Jun	
Activity 1.7: Provide support for States to support corrective actions if requested.	RODBs	As required	
Milestone 1: OPMET availability and timeliness are reported.	MET/IE WG	Annually Jun	
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 States participating MWOs, RODBs, VAACs, TCACs 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
Activity 2.6: Conduct and collate data for other SIGMET Tests	RODBs	Annually	4 th Wed in Nov

MET SG/29
Appendix B to WP/04

5. WORK PLAN			
Activity / Milestone	Accountability	Date	Status
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 2.10: Advise States of SIGMET corrective actions	Secretariat	Annually Jun	
Milestone 2: Improved issuance and compliance of SIGMETs	MET/IE WG	Annually MET SG	
Activity 3: IROG Back-up Tests			
Activity 3.1: Updated IROG Back-up Procedures in ROBEX Handbook, to include including support for IWXXM.	Secretariat	Annually May As required	
Activity 3.2: Identify list of OPMET Bulletins to monitor.	IROG Bangkok and Singapore	Annually Jan/Feb 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 Jan/Feb Sep/Oct	
Activity 3.5: Report to MET/IE WG	IROG Bangkok and Singapore	Annually Mar	
Milestone 3: IROG Back-up Tests conducted, analysed and report complete.	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 dDraft 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	
Milestone 4: ROBEX Handbook remains relevant	Secretariat	Twice Annually	
Activity 5: MET Information Exchange Scheme			
Activity 5.1: Review ROBEX Scheme diagram.	All RODBs, Secretariat	May-Annually May	
Activity 5.2: Review the structure of the ROBEX exchange in light of the introduction of SWIM.	WG	Annually Feb	
Activity 5.3: Maintain IWXXM online register	Australia, Hong Kong China and Secretariat	Monthly As required	
Milestone 5: Improved efficiency and effectiveness of ROBEX Scheme	MET/IE WG		
Activity 6: MET information in SWIM			
Activity 6.1: Provide education and dDevelop guidance to support States' implementation of MET information services	MET/IE WG	As required	
Milestone 6: MET-SWIM services implemented in APAC	MET/IE WG	2024-2027	