



ICAO

International Civil Aviation Organization**WORKING PAPER****Asia and Pacific (APAC)****Twenty-second Meeting of the Meteorological Information Exchange Working Group (MET/IE WG/22)**

Bangkok, Thailand, 18 to 21 March 2024

**Agenda Item 2: Review of follow-up from previous meetings****FOLLOW-UP ACTION FROM MET/IE WG/21**

(Presented by the Secretariat)

**SUMMARY**

This paper presents the status of follow-up action on outcomes from the previous meeting of the Meteorological Information Exchange Working Group (MET/IE WG/21) and invites the meeting to propose and endorse updates, as necessary, to the status of follow-up action recorded in the MET/IE WG List of Actions.

**1. INTRODUCTION**

1.1 Outcomes from the Twenty-first Meeting of the Meteorological Information Exchange Working Group (MET/IE WG/21), in Bangkok, Thailand, from 27 to 29 March 2023, including the conjoint session with the Thirteenth Meeting of the Meteorological Services Working Group (MET/S WG/13) on 29 March 2023, included seventeen (17) new action items for the MET/IE WG List of Actions.

1.2 The meeting will review the status of follow-up action on the outcomes from MET/IE WG/21, formulate additional follow-up actions as necessary, and propose and endorse updates to the MET/IE WG List of Actions.

**2. DISCUSSION**

2.1 The action items recorded in the Report of MET/IE WG/21, along with unresolved action items from previous meetings of the MET/IE WG, are detailed in the MET/IE WG List of Actions at the **Appendix A** to this paper.

2.2 The List of Actions indicates the status of follow-up on the action items (in the last column). Updates to the status of follow-up on the action items since the last meeting are indicated by highlighted and strike-through text. *Note: action items which the MET/IE WG previously agreed are completed, superseded (by other activities), closed or redundant, are removed from the list.*

### **3. ACTION BY THE MEETING**

3.1 This paper invites the meeting to:

- a) Review the MET/IE WG List of Actions, including the status of follow-up on the action items (as indicated at the **Appendix A** to this paper);
- b) Propose further updates, as necessary, to the status of follow-up on action items in the MET/IE WG List of Actions; and
- c) Endorse the proposed updates to the status of follow-up on action items in the MET/IE WG List of Actions.

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**MET/IE WG – LIST OF ACTIONS**

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

**New action items recorded by MET/IE WG/21**

| ACTION ITEM               | DESCRIPTION  | BY DATE      | RESPONSIBILITY   | STATUS/REMARKS                             |
|---------------------------|--|--------------|--|--|
| MET/IE WG/21<br><b>01</b> | Amend the MET/IE WG meeting agenda as follows:<br>a) Remove the agenda item titled “Meteorological information exchange schemes”; and<br>b) Add a new agenda item on “SWIM”.<br>[Ref: MET/IE WG/21 Report, para 3.1]<br><br>Ref: MET/IE WG/22  | MET SG/27    | Secretariat and Chairs   | <b>COMPLETED</b><br><del>TO COMMENCE</del> |
| MET/IE WG/21<br><b>02</b> | The meeting requested IROGs to provide updates for each of the interregional circuits in the IWXXM online register.<br>[Ref: MET/IE WG/21 Report, para 4.13]   | MET SG/27    | APAC IROGs   | <b>TO COMMENCE</b>                         |
| MET/IE WG/21<br><b>03</b> | Publish the link to the online register of APAC IWXXM exchange status on the ICAO APAC Office, “eDocuments”, website.<br>[Ref: MET/IE WG/21 Report, para 4.16]   | MET SG/27    | Secretariat  | <b>COMPLETED</b><br><del>TO COMMENCE</del> |
| MET/IE WG/21<br><b>04</b> | Investigate the feasibility and possible timeline for conducting an IROG backup exercise for IWXXM data.<br>[Ref: MET/IE WG/21 Report, para 5.3]   | MET/IE WG/22 | Singapore and Thailand   | <b>TO COMMENCE</b>                         |
| MET/IE WG/21<br><b>05</b> | Submit a paper to the ACSICG proposing action to facilitate the establishment of redundant paths (primary circuit and backup paths) in consultation with the counterpart in other Regions to support the reliable implementation of Annex 3 IWXXM provisions globally.<br>[Ref: MET/IE WG/21 Report, para 5.7]<br><br>Ref: ACSICG/10, WP/17<br>Ref: Draft Conclusion ACSICG/10/05 - GLOBAL DISSEMINATION OF IWXXM<br>Ref: MET SG/27, WP/25 – OUTCOMES OF CNS SG/27   | ACSICG/10    | Secretariat and Chairs   | <b>COMPLETED</b><br><del>TO COMMENCE</del> |
| MET/IE WG/21<br><b>06</b> | Submit a paper to the ACSICG proposing a conjoint meeting session of the MET/IE WG and ACSICG in 2024.<br>[Ref: MET/IE WG/21 Report, para 5.7]<br><br>Ref: ACSICG/10, WP/17  | ACSICG/10    | Secretariat and Chairs   | <b>COMPLETED</b><br><del>TO COMMENCE</del> |
| MET/IE WG/21<br><b>07</b> | Review the Performance Indices (PIs) used in APAC OPMET monitoring, and consider monitoring the timeliness of IWXXM messages.<br>[Ref: MET/IE WG/21 Report, para 5.10, and MET/IE WG/20 action item 05]  | MET/IE WG/22 | Ad hoc group: Thailand (lead), Secretariat, Chairs, New Zealand, Hong Kong China and Australia | <b>TO COMMENCE</b>                         |
| MET/IE WG/21<br><b>08</b> | Provide the MET/IE WG with further advice on the problems identified in APAC OPMET monitoring in validating IWXXM v2021-2 form.<br>[Ref: MET/IE WG/21 Report, para 5.14]   | MET/IE WG/22 | Thailand   | <b>TO COMMENCE</b>                         |
| MET/IE WG/21<br><b>09</b> | Include the following updates in the ROBEX Handbook, Fifteenth Edition:<br>a) Remove the requirement to indicate the RODB responsible for storing the METAR and TAF bulletins in bold text in Appendix A and B;<br>b) Correct the references to IWXXM TAF bulletins from “LC” to “LT” in para. 13.3.1.1 and Appendix D, para. 2.1.1; and<br>c) Include updates in Appendices A and B to reflect the changes to the METAR and TAF bulletins SAPK31 and FTPK31, as requested by Pakistan by email to ICAO.<br>[Ref: MET/IE WG/21 Report, para 6.3]<br><br>Ref: ROBEX HB 15 <sup>th</sup> Ed. | ASAP         | Secretariat  | <b>COMPLETED</b><br><del>TO COMMENCE</del> |
| MET/IE WG/21<br><b>10</b> | Include the updates to Appendix A of the ROBEX Handbook, Fifteenth Edition, as proposed by China and presented in Appendix F of the MET/IE WG/21 Report.<br>[Ref: MET/IE WG/21 Report, para 6.8]<br><br>Ref: ROBEX HB 15 <sup>th</sup> Ed.   | ASAP         | Secretariat  | <b>COMPLETED</b><br><del>TO COMMENCE</del> |

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| ACTION ITEM     | DESCRIPTION   | BY DATE      | RESPONSIBILITY   | STATUS/REMARKS               |
|-----------------|---|--------------|--|------------------------------|
| MET/IE WG/21 11 | Include the aerodrome updates in the ROBEX Handbook, Fifteenth Edition, as proposed by New Zealand and presented in Appendix F of the MET/IE WG/21 Report.<br>[Ref: MET/IE WG/21 Report, para 6.11]<br><br>Ref: ROBEX HB 15 <sup>th</sup> Ed.   | ASAP         | Secretariat  | <b>COMPLETED TO COMMENCE</b> |
| 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.<br>[Ref: MET/IE WG/21 Report, para 6.11]  | MET/IE WG/22 | Secretariat  | <b>TO COMMENCE</b>           |
| MET/IE WG/21 13 | Include the proposed updates in the ROBEX HANDBOOK, Fifteenth Edition, as proposed by Hong Kong, China and presented in Appendix F of the MET/IE WG/21 Report.<br>[Ref: MET/IE WG/21 Report, para 6.12-6.14]<br><br>Ref: ROBEX HB 15 <sup>th</sup> Ed.  | ASAP         | Secretariat  | <b>COMPLETED TO COMMENCE</b> |
| MET/IE WG/21 14 | Include the proposed updates in the ROBEX HANDBOOK, Fifteenth Edition, as proposed by Thailand and presented in Appendix F of the MET/IE WG/21 Report.<br>[Ref: MET/IE WG/21 Report, para 6.15-6.17]<br><br>Ref: ROBEX HB 15 <sup>th</sup> Ed.  | ASAP         | Secretariat  | <b>COMPLETED TO COMMENCE</b> |
| MET/IE WG/21 15 | Keep abreast of the METP developments on METNO procedures and develop a proposal to improve the METNO procedure in the APAC ROBEX Handbook.<br>[Ref: MET/IE WG/21 Report, para 6.19]<br>MET/IE WG/20-09: Develop updates to the ROBEX Handbook, Appendix E – Procedure and Format of METNO bulletin for APAC ROBEX Bulletins to clarify the procedures concerning the general area designator in the METNO Header (in paragraph 2.2.) and the responsibilities for issuing METNO messages.<br>[Ref: Report of MET/IE WG/20, para. 6.4.] | MET SG/27    | Secretariat, Chair, Vice Chair and METNO focal points and invited the RODBs Secretariat and ROBEX Focal Points from Australia, Hong Kong, China, Japan and Singapore | <b>TO COMMENCE</b>           |
| 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<br>[Ref: MET/IE WG/21 Report, para 7.2]  | MET SG/27    | Secretariat  | <b>TO COMMENCE</b>           |
| MET/IE WG/21 17 | Include the IWXXM-specific statistics, such as IWXXM versions, in future SIGMET test results.<br>[Ref: MET/IE WG/21 and MET/S WG/13 Conjoint Session Report, para 2.12]   | MET/IE WG/22 | Thailand, in coordination with the SIGMET test focal points (Japan and Singapore)  | <b>TO COMMENCE</b>           |

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

**Unresolved action items recorded by MET/IE WG/20**

| ACTION ITEM     | DESCRIPTION   | BY DATE          | RESPONSIBILITY  | STATUS/REMARKS  |
|-----------------|---|------------------|---|---|
| MET/IE WG/20 01 | Follow up with Australia on opportunities to combine the ICAO APAC 2022 Webinar on Space Weather and Australia and New Zealand's 2022 Space Weather Exercise.<br>[Ref: Report of MET/IE WG/20, para. 2.10.]   | Before MET SG/27 | Secretariat, in coordination with participants from Australia | <b>IN PROGRESS</b>  |
| MET/IE WG/20 02 | Coordinate the consequential amendments to the <b>(a)</b> ANP (Volume II, Table MET II-2 – Aerodrome Meteorological Offices) and the <b>(b)</b> ROBEX Handbook to reflect the requirements for MET service at QUANG NINH/Van Don International Airport (ICAO location indicator VVVD).<br>[Ref: Report of MET/IE WG/20, para. 3.5.]<br><br><b>(a)</b> Ref: MET SG/27, WP/14 - Review of the APAC ANP<br><b>(b)</b> Ref: ROBEX HB 15 <sup>th</sup> Ed. | Before MET SG/27 | Secretariat, in coordination with participants from Vietnam   | <b>(a) IN PROGRESS</b><br>ANP PfA pending circulation by the Secretariat;<br><b>(b) COMPLETED</b> |

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| ACTION ITEM     | DESCRIPTION   | BY DATE                    | RESPONSIBILITY  | STATUS/REMARKS   |
|-----------------|---|----------------------------|---|--|
| 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.<br>[Ref: Report of MET/IE WG/20, para. 4.15.]   | Before MET SG/27           | Secretariat, in coordination with participants from Thailand  | IN PROGRESS  |
| MET/IE WG/20 05 | Invite interested WG members to form an ad hoc group to review the Performance Indices (PIs) used in APAC OPMET monitoring.<br>[Ref: Report of MET/IE WG/20, para. 5.13.]   | Before MET/IE WG/22        | Secretariat and Chair MET/IE WG and designated ad hoc group, including Members from Thailand and New Zealand, Hong Kong China | IN PROGRESS  |
| MET/IE WG/20 06 | Use as the benchmark for OPMET monitoring the latest available ROBEX data provided by the Secretariat (rather than by the published ROBEX Handbook).<br>[Ref: Report of MET/IE WG/20, para. 5.15.]  | Before MET/IE WG/22        | Thailand, in coordination with the Secretariat  | IN PROGRESS  |
| MET/IE WG/20 09 | Develop updates to the ROBEX Handbook, Appendix E – <i>Procedure and Format of METNO bulletin for APAC ROBEX Bulletins</i> to clarify the procedures concerning the general area designator in the METNO Header (in paragraph 2.2.) and the responsibilities for issuing METNO messages.<br>[Ref: Report of MET/IE WG/20, para. 6.4.]   | Before MET SG/27           | Secretariat and ROBEX Focal Points from Australia, Hong Kong, China, Japan and Singapore                                      | <b>SUPERSEDED</b> by MET/IE WG/21-15<br><b>IN-PROGRESS</b> (related to work underway by METP WG-MIE) |
| MET/IE WG/20 10 | Coordinate with Indonesia to:<br>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<br>b) Include the validated proposals in the next update of the ROBEX Handbook.<br>[Ref: Report of MET/IE WG/20, para. 6.9.]<br><br>Ref: MET SG/27, WP/14 - Review of the APAC ANP                                 | Next ROBEX Handbook update | Secretariat, in coordination with participants from Indonesia   | IN PROGRESS<br>ANP Pfa pending circulation by the Secretariat  |
| MET/IE WG/20 12 | Document the steps States should take to:<br>a) Effect changes to the ROBEX scheme; and<br>b) Notify States of changes to MET service.<br>[Ref: Report of MET/IE WG/20, para. 6.15.]  | Before MET SG/27           | Secretariat   | 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.<br>[Ref: Report of MET/IE WG/20, para. 7.5.] | Before MET SG/27           | Chair MET/IE WG and Secretariat   | IN PROGRESS  |
| MET/IE WG/20 14 | Coordinate a proposal to supplement the VAAC Backup Test Procedures in the Appendices of the APAC Regional SIGMET Guide with information on the backup arrangement with VAACs Washington and Montreal.<br>[Ref: Report of Conjoint Session of MET/IE WG/20 and MET/S WG/12, para. 1.4.]   | Before MET/IE WG/22        | Members from VAAC Darwin  | 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> .<br>[Ref: Report of Conjoint Session of MET/IE WG/20 and MET/S WG/12, para. 2.17.]  | 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.<br>[Ref: Report of Conjoint Session of MET/IE WG/20 and MET/S WG/12, para. 2.23.]   | Before MET SG/27           | Secretariat, in coordination with participants from Myanmar   | IN PROGRESS  |

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| ACTION ITEM     | DESCRIPTION  | BY DATE          | RESPONSIBILITY | STATUS/REMARKS               |
|-----------------|--|------------------|----------------|------------------------------|
| MET/IE WG/20 18 | Submit a paper to MET SG requesting States to provide up to date contact information for letters from ICAO requesting the States to participate in SIGMET tests.<br>[Ref: Report of Conjoint Session of MET/IE WG/20 and MET/S WG/12, para. 2.24.]<br><br>Ref: MET SG/27–WP/23 | Before MET SG/27 | Secretariat    | <b>COMPLETED TO COMMENCE</b> |

Unresolved action items recorded by MET/IE WG/19

| ACTION ITEM | DESCRIPTION   | BY DATE          | RESPONSIBILITY | STATUS/REMARKS     |
|-------------|---|------------------|----------------|--------------------|
| 01          | <b>Propose updates to the ROBEX Handbook:</b> to ensure clarity of the guidance concerning the ROCs' responsibilities for the distribution of IWXXM formatted OPMET data [ref: para. 2.5.]        | Before MET SG/27 | WG             | <b>TO COMMENCE</b> |
| 05          | <b>Propose updates to the ROBEX Handbook:</b> to include information on the (KWBC) bulletins containing Pago Pago METAR and TAF [ref: para. 4.3.]<br><br>Ref: MET SG/27, WP/09 - ROBEX HB UPDATES | Before MET SG/27 | Secretariat    | <b>IN PROGRESS</b> |

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

The following action items are applicable to one or both of the MET/IE WG and MET/S WG

| ACTION ITEM                        | DESCRIPTION   | BY DATE          | RESPONSIBILITY            | STATUS/REMARKS   |
|------------------------------------|---|------------------|---------------------------|--|
| <b>Regional Guidance Materials</b> |   |                  |                           |  |
| 13                                 | <b>ROBEX Handbook updates – Update process:</b> Propose options for a more streamlined process for updating the ROBEX Handbook data, such as through the development of a more dynamic, online repository for ROBEX data [ref: para. 4.4.]  | Before MET SG/27 | MET/IE WG                 | <b>IN PROGRESS</b><br>Ref: MET/IE WG, 5. Work Plan, Activity 6                             |
| 15                                 | <b>ROBEX Handbook updates – IWXXM-related flexibility:</b> Propose updates, as necessary, to reflect APAC States' requirement for flexibility of the ROBEX scheme structure during the transition to Region-wide implementation of IWXXM exchange [ref: para. 4.7.]   | Before MET SG/27 | MET/IE WG                 | <b>IN PROGRESS</b><br>Ref: MET/IE WG, 5. Work Plan, Activity 6                             |
| 18                                 | <b>ROBEX Handbook and SIGMET Guide updates – Legacy FASID information:</b> 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.] | Before MET SG/27 | Secretariat and States    | <b>IN PROGRESS</b><br>Ref: MET/IE WG, 5. Work Plan, Activity 6                             |
| 19                                 | <b>ANP and ROBEX Handbook updates – Vietnam NOC:</b> Coordinate on the implementation of the Vietnam NOC, including development of proposed updates to the (a) APAC ANP and (b) ROBEX Handbook [ref: para. 3.7.]<br><br>(a) Ref: MET SG/27, WP/14 - Review of the APAC ANP<br>(b) Ref: ROBEX HB 15 <sup>th</sup> Ed.  | Before MET SG/27 | Vietnam and Thailand      | (a) <b>IN PROGRESS</b><br>Ref: MET/IE WG, 5. Work Plan, Activity 6<br>(b) <b>COMPLETED</b> |
| 20                                 | <b>ANP and ROBEX Handbook updates – Indonesia new aerodromes:</b> Determine any requirement (based on IP/09) to update the ICAO APAC (a) ANP and/or (b) ROBEX Handbook [ref: para. 8.27.]<br><br>(a) Ref: MET SG/27, WP/14 - Review of the APAC ANP<br>(b) Ref: MET SG/27, WP/09 - ROBEX HB UPDATES   | Before MET SG/27 | Secretariat and Indonesia | <b>IN PROGRESS</b><br>Ref: MET/IE WG, 5. Work Plan, Activity 6                             |

Unresolved action items recorded by MET/IE WG/17

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| 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:<br>(a) changes to the routing of the SIGMET and advisory information at the responsible VAAC, TCAC and the RODBs; and<br>(b) updates to the ANP, including the legacy FASID tables, and the Regional SIGMET Guide.<br><i>[Report of MET/IE WG/17, para. 3.1 – 3.4, refers]</i>                     | Before MET SG/27 | Cambodia and Secretariat  | <b>IN PROGRESS</b>                                      |
| 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:<br>(a) updates to the ROBEX Handbook and notification to States via “METNO”; and<br>(b) updates to the ICAO Doc. 7910; and<br>(c) APAC ANP, including AOP and MET tables.<br><i>[Report of MET/IE WG/17, para. 3.6 – 3.8, refers]</i><br><br>(b) Ref: ICAO Doc. 7910 – (ZBAD) BEIJING/DAXING | Before MET SG/27 | China and Secretariat     | (a) and (c) <b>IN PROGRESS</b><br>(b) <b>COMPLETED</b>  |
| 17/10       | Liaise with the SADIS Provider concerning obtaining OPMET availability statistics on SADIS for future meetings of the MET/IE WG.<br><i>[Report of MET/IE WG/17, para. 4.21, refers]</i>  | Before MET SG/27 | Secretariat               | <b>IN PROGRESS</b>                                      |
| 17/20       | Propose updates to all required APAC documentation regarding the originating address of Australian WV SIGMETs (i.e., YMMC, rather than AMMC).<br><i>[Report of conjoint session of MET/IE WG/17 and MET/S WG/9, para. 2.24, refers]</i>  | Before MET SG/27 | Secretariat and Australia | <b>IN PROGRESS</b><br>ANP Table MET II-1 pending update |

**Unresolved action items recorded by ROBEX WG/13**

| 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 | <b>IN PROGRESS</b><br>Coordinate necessary follow-up through the ICAO ANP working group [Ref: MET/IE WG/16 Report para. 2.9]. |

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