

International Civil Aviation Organization



ICAO

DISCUSSION PAPER

ICAO Asia and Pacific (APAC)

Twenty-Seventh Meeting of the Meteorology Sub-Group
(MET SG/27)

Bangkok, Thailand, 04 to 08 September 2023

Agenda Item 7: Future work program

UPDATES TO THE MET LIST OF ACTIONS

(Presented by the Secretariat)

SUMMARY

This paper presents additional proposed updates to the List of Actions presented in WP/04 (MET/IE WG – List of Actions), WP/05 (MET/S WG – List of Actions) and WP/06 (MET/R WG – List of Actions).

Note: The proposed updates, which are additional to those presented in WP/04, WP/05 and WP/06, are indicated with (red) ~~strikethrough~~ and (yellow) **highlighted** text.

Appendix A – MET/IE WG – List of Actions

Appendix B – MET/S WG – List of Actions

Appendix C – MET/R WG – List of Actions

APPENDIX A

MET/IE WG – LIST OF ACTIONS

The proposed updates, which are additional to those presented in WP/04 are indicated with (red) ~~striketrough~~ and (yellow) **highlighted** text.

New action items recorded by MET/IE WG/21

ACTION ITEM	DESCRIPTION	BY DATE	RESPONSIBILITY	STATUS/REMARKS
MET/IE WG/21 01	Amend the MET/IE WG meeting agenda as follows: a) Remove the agenda item titled “Meteorological information exchange schemes”; and b) Add a new agenda item on “SWIM”. [Ref: MET/IE WG/21 Report, para 3.1]	MET SG/27	Secretariat and Chairs	TO COMMENCE
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]	MET SG/27	APAC IROGs	TO COMMENCE
MET/IE WG/21 03	Publish the link to the online register of APAC IWXXM exchange status on the ICAO APAC Office, “eDocuments”, website. [Ref: MET/IE WG/21 Report, para 4.16]	MET SG/27	Secretariat	COMPLETED TO COMMENCE
MET/IE WG/21 04	Investigate the feasibility and possible timeline for conducting an IROG backup exercise for IWXXM data. [Ref: MET/IE WG/21 Report, para 5.3]	MET/IE WG/22	Singapore and Thailand	TO COMMENCE
MET/IE WG/21 05	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. [Ref: MET/IE WG/21 Report, para 5.7] Ref: ACSICG/10, WP/17 Ref: Draft Conclusion ACSICG/10/05 - GLOBAL DISSEMINATION OF IWXXM Ref: MET SG/27, WP/25 – OUTCOMES OF CNS SG/27	ACSICG/10	Secretariat and Chairs	TO COMMENCE IN-PROGRESS (ref: ACSICG/10, WP/17) COMPLETED
MET/IE WG/21 06	Submit a paper to the ACSICG proposing a conjoint meeting session of the MET/IE WG and ACSICG in 2024. [Ref: MET/IE WG/21 Report, para 5.7]	ACSICG/10	Secretariat and Chairs	TO COMMENCE COMPLETED (ref: ACSICG/10, WP/17)
MET/IE WG/21 07	Review the Performance Indices (PIs) used in APAC OPMET monitoring, and consider monitoring the timeliness of IWXXM messages. [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	TO COMMENCE
MET/IE WG/21 08	Provide the MET/IE WG with further advice on the problems identified in APAC OPMET monitoring in validating IWXXM v2021-2 form. [Ref: MET/IE WG/21 Report, para 5.14]	MET/IE WG/22	Thailand	TO COMMENCE
MET/IE WG/21 09	Include the following updates in the ROBEX Handbook, Fifteenth Edition: a) Remove the requirement to indicate the RODB responsible for storing the METAR and TAF bulletins in bold text in Appendix A and B; 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 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. [Ref: MET/IE WG/21 Report, para 6.3] Ref: ROBEX HB 15th Ed.	ASAP	Secretariat	COMPLETED TO COMMENCE

ACTION ITEM	DESCRIPTION	BY DATE	RESPONSIBILITY	STATUS/REMARKS
MET/IE WG/21 10	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. [Ref: MET/IE WG/21 Report, para 6.8] Ref: ROBEX HB 15 th Ed.	ASAP	Secretariat	COMPLETED TO COMMENCE
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. [Ref: MET/IE WG/21 Report, para 6.11] Ref: ROBEX HB 15 th Ed.	ASAP	Secretariat	COMPLETED 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]	MET/IE WG/22	Secretariat	TO COMMENCE
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. [Ref: MET/IE WG/21 Report, para 6.12-6.14] Ref: ROBEX HB 15 th Ed.	ASAP	Secretariat	COMPLETED TO COMMENCE
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. [Ref: MET/IE WG/21 Report, para 6.15-6.17] Ref: ROBEX HB 15 th Ed.	ASAP	Secretariat	COMPLETED TO COMMENCE
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. [Ref: MET/IE WG/21 Report, para 6.19] 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. [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	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	TO COMMENCE
MET/IE WG/21 17	Include the IWXXM-specific statistics, such as IWXXM versions, in future SIGMET test results. [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)	TO COMMENCE

(Note: Agreed updates are indicated with ~~strikethrough~~ 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. [Ref: Report of MET/IE WG/20, para. 2.10.]	Before MET SG/2627	Secretariat, in coordination with participants from Australia	IN PROGRESS

ACTION ITEM	DESCRIPTION	BY DATE	RESPONSIBILITY	STATUS/REMARKS
MET/IE WG/20 02	Coordinate the consequential amendments to the (a) ANP (Volume II, Table MET II-2 – Aerodrome Meteorological Offices) and the (b) ROBEX Handbook 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.	Before MET SG/2627	Secretariat, in coordination with participants from Vietnam	(a) IN PROGRESS ANP PfA pending circulation by the Secretariat; (b) COMPLETED
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/2627	Secretariat, in coordination with participants from Thailand	IN PROGRESS
MET/IE WG/20 04	Develop updates to the document <i>IWXXM implementation in APAC Region – FAQs</i> based on lessons learnt from monitoring IWXXM validation conducted by ROC Hong Kong. [Ref: Report of MET/IE WG/20, para. 4.31.]	Before MET SG/2627	Members from Hong Kong, China, assisted by members from New Zealand	COMPLETED (ref: MET/IE WG/21, WP/07)
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. [Ref: Report of MET/IE WG/20, para. 5.13.]	Before MET/IE WG/242	Secretariat and Chair MET/IE WG and designated ad hoc group, including Members from Thailand and TBD 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). [Ref: Report of MET/IE WG/20, para. 5.15.]	Before MET/IE WG/242	Thailand, in coordination with the Secretariat	IN PROGRESS
MET/IE WG/20 07	Update the ROBEX Handbook, Appendix I, to reflect changes in the focal point information for Thailand and Malaysia. [Ref: Report of MET/IE WG/20, para. 6.2.] Ref: ROBEX HB 15 th Ed.	Before MET SG/2627	Secretariat, in coordination with participants from Thailand and Malaysia	COMPLETED
MET/IE WG/20 08	Delete the list of area designators in the ROBEX Handbook, Appendix D, 2.1.2. c), which replicates WMO No. 386, Table C1, Part II – Area Designators and, therefore, is unnecessary in the ROBEX Handbook. [Ref: Report of MET/IE WG/20, para. 6.3.] Ref: ROBEX HB 15 th Ed.	Next ROBEX Handbook update	Secretariat	COMPLETED
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. [Ref: Report of MET/IE WG/20, para. 6.4.]	Before MET SG/2627	Secretariat and ROBEX Focal Points from Australia, Hong Kong, China, Japan and Singapore	SUPERSEDED by MET/IE WG/21-15 IN PROGRESS (related to work underway by METP WG-MIE)
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	Next ROBEX Handbook update	Secretariat, in coordination with participants from Indonesia	IN PROGRESS ANP PfA pending circulation by the Secretariat

ACTION ITEM	DESCRIPTION	BY DATE	RESPONSIBILITY	STATUS/REMARKS
MET/IE WG/20 11	Coordinate with Mongolia to: a) Notify the regional focal point and team for management of the METNO process of the changes in IP/11; and b) Include the proposals in IP/11 in the next update of the ROBEX Handbook. <i>[Ref: Report of MET/IE WG/20, para. 6.14.]</i> Ref: ROBEX HB 15th Ed.	Next ROBEX Handbook update	Secretariat, in coordination with participants from Mongolia	COMPLETED
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/2627	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. <i>[Ref: Report of MET/IE WG/20, para. 7.5.]</i>	Before MET SG/2627	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. <i>[Ref: Report of Conjoint Session of MET/IE WG/20 and MET/S WG/12, para. 1.4.]</i>	Before MET/IE WG/242	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 – Tropical Cyclone Advisory Centres and 3B – Volcanic Ash Advisory Centres. <i>[Ref: Report of Conjoint Session of MET/IE WG/20 and MET/S WG/12, para. 2.17.]</i>	Before MET SG/2627	Secretariat	IN PROGRESS
MET/IE WG/20 16	Develop a proposal to update the SIGMET Test Procedures to include disseminating SIGMET and advisory messages in IWXXM form. <i>[Ref: Report of Conjoint Session of MET/IE WG/20 and MET/S WG/12, para. 2.18.]</i>	Before MET SG/2627	MET/IE WG and MET/S WG designated ad hoc group	COMPLETED (Ref: SIGMET test procedures 2022)
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/2627	Secretariat, in coordination with participants from Myanmar	IN PROGRESS
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. <i>[Ref: Report of Conjoint Session of MET/IE WG/20 and MET/S WG/12, para. 2.24.]</i>	Before MET SG/2627	Secretariat	TO COMMENCE

Unresolved action items recorded by MET/IE WG/19

ACTION ITEM	DESCRIPTION	BY DATE	RESPONSIBILITY	STATUS/REMARKS
01	Propose updates to the ROBEX Handbook: to ensure clarity of the guidance concerning the ROCs' responsibilities for the distribution of IWXXM formatted OPMET data [ref: para. 2.5.]	May 2021 Before MET SG/27	WG	TO COMMENCE
02	Propose updates to the ROBEX Handbook: to ensure the availability of the AFTN addresses for the designated APAC ROCs [ref: para. 2.6.] Ref: ROBEX HB 15th Ed.	May 2021 Before MET SG/27	WG	To commence COMPLETED

ACTION ITEM	DESCRIPTION	BY DATE	RESPONSIBILITY	STATUS/REMARKS
05	Propose updates to the ROBEX Handbook: to include (a) the necessary consequential changes to OPMET bulletins described in WP/08 (SAPS31 NFFN, SAPS32 NWWW, SAPS33 NTAA, SANG31 YBBN, FTPS31 NFFN, FTPS32 NWWW, FTPS33 NTAA, FTNG31 YBBN) and presented in Attachment A to WP/08 and (b) to include information on the (KWBC) bulletins containing Pago Pago METAR and TAF [ref: para. 4.3.] (a) Ref: ROBEX HB 14th Ed. (b) Ref: MET SG/27, WP/09 - ROBEX HB UPDATES	May 2021 Before MET SG/27	Secretariat	(a) COMPLETED ; (b) IN PROGRESS
11	Propose updates to the ROBEX Handbook: to include the OPMET exchange information for Van Don International Airport (VVVD), as advised by Viet Nam and presented in MET/IE WG/19, WP/15 – <i>A new international airport (VVVD) to join ROBEX network for international OPMET data exchange.</i> [ref: para. 6.11.] Ref: ROBEX HB 15 th Ed.	May 2021	Viet Nam and Secretariat	IN-PROGRESS MET/IE WG/20, IP/02 COMPLETED

Unresolved action items recorded by the conjoint session of MET/IE WG/19 and MET/S WG/11

ACTION ITEM	DESCRIPTION	BY DATE	RESPONSIBILITY	STATUS/REMARKS
01	State letter request to user States to ensure the relevant operational units participate in the VAAC backup tests and provide the VAACs with their current, valid AFTN addresses for receipt of the VAA messages. [Ref: para. 1.1.-1.3., MET/IE WG/19 and MET/S WG/11 conjoint session]	Before next scheduled test	Australia, New Zealand, Secretariat	TO COMMENCE CLOSED (ref: MET/S WG work plan)
02	Investigate possible improvements to the template for the SIGMET test summary table to enable a more detailed analysis of the SIGMET tests, including analysis of more than one WC and/or WV SIGMET test message issued by the same MWO (which receives TCA and/or VAA from more than one TCAC and/or VAAC). [Ref: para. 2.16., MET/IE WG/19 and MET/S WG/11 conjoint session]	Before next scheduled test	SIGMET test Focal Points, Secretariat	TO COMMENCE COMPLETED

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
Terms of Reference and Work Program				
01	Terms of Reference and Work Program – online coordination: Make use of regular online coordination meetings to facilitate progress on follow-up on the action items in the Task List/s [ref: para. 2.3. and 7.3.]	As necessary	Secretariat and WG Chairs and members	IN PROGRESS CLOSED (ref: MET/IE WG work plan)
OPMET Monitoring				
07	OPMET performance indices – States’ follow-up: Inform States concerned of the locations with low performance indices and advise the States to take appropriate corrective actions; address the above communication also the Regional OPMET Centres (ROCs) responsible for the collection of OPMET messages from the originating stations [ref: para. 3.4. and 3.5.]	Before MET SG/26	Secretariat	IN-PROGRESS Ref: MET/IE WG, 5. Work Plan, Activity 1 and Activity 2 CLOSED Superseded by later activities
Regional Guidance Materials				
13	ROBEX Handbook updates – Update process: 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	IN PROGRESS Ref: MET/IE WG, 5. Work Plan, Activity 6

ACTION ITEM	DESCRIPTION	BY DATE	RESPONSIBILITY	STATUS/REMARKS
14	ROBEX Handbook updates – IWXXM-related data: Investigate the development of an online repository for ROBEX data in which States would share and maintain up to date information on the IWXXM-capabilities of the ROBEX scheme and the AMHS addresses to support the required dissemination of IWXXM messages [ref: para. 4.6.]	Before MET SG/24	MET/IE WG	IN-PROGRESS Ref: MET/IE WG, 5. Work Plan, Activity 6 COMPLETED IWXXM online register
15	ROBEX Handbook updates – IWXXM-related flexibility: 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	IN PROGRESS Ref: MET/IE WG, 5. Work Plan, Activity 6
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.]	Before MET SG/27	Secretariat and States	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 (a) APAC ANP and (b) ROBEX Handbook [ref: para. 3.7.] (a) Ref: MET SG/27, WP/14 - Review of the APAC ANP (b) Ref: ROBEX HB 15 th Ed.	Before MET SG/27	Vietnam and Thailand	(a) IN PROGRESS Ref: MET/IE WG, 5. Work Plan, Activity 6 (b) COMPLETED
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	Before MET SG/27	Secretariat and Indonesia	IN PROGRESS Ref: MET/IE WG, 5. Work Plan, Activity 6
SIGMET test				
28	SIGMET test results – corrective action plan: Investigate the reason for the reduced reception of SIGMET test messages at Regional OPMET Centre (ROC) London compared to APAC RODB's and share the results with MET/S for potential corrective action [ref: para. 6.12.]	Before MET SG/26	MET/IE WG	IN-PROGRESS Ref: MET/IE WG, 5. Work Plan, Activity 3 AND Ref: MET/S WG, 5. Work Plan, Activity 3 CLOSED Superseded by later activities
Other				
30	VAAC backup test procedures – review and update: Refer to the pertinent information from IP/08 and determine appropriate action for the next review and update of the VAAC backup test procedures [ref: para. 8.25.]	Before MET SG/26	MET/IE WG and MET/S WG	IN-PROGRESS Ref: MET/IE WG, 5. Work Plan, Activity 4 CLOSED (ref: MET/S WG work plan)

Unresolved action items recorded by MET/IE WG/17

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: (a) changes to the routing of the SIGMET and advisory information at the responsible VAAC, TCAC and the RODBs; and (b) 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>	Before MET SG/27	Cambodia and 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) updates to the ICAO Doc. 7910; and (c) APAC ANP, including AOP and MET tables. <i>[Report of MET/IE WG/17, para. 3.6 – 3.8, refers]</i> (b) Ref: ICAO Doc. 7910 – (ZBAD) BEIJING/DAXING	Before MET SG/27	China and Secretariat	(a) and (c) IN PROGRESS (b) COMPLETED
17/4	Coordinate a proposal to update the ROBEX Handbook to enable the regular exchange of several international OPMET bulletins to the ROBEX Centre Beijing and present it for further review and possible endorsement by MET/SG/23. <i>[Report of MET/IE WG/17, para. 3.9 – 3.12, refers]</i> Ref: ROBEX HB 15 th Ed.	17 Jun 2019	Secretariat China	COMPLETED
17/10	Liaise with the SADIS Provider concerning obtaining OPMET availability statistics on SADIS for future meetings of the MET/IE WG. <i>[Report of MET/IE WG/17, para. 4.21, refers]</i>	Before MET SG/27	Secretariat	IN PROGRESS
17/11	Present a consolidated proposal for updates to the ROBEX Handbook, to reflect the establishment of an NOC (within the ROBEX scheme) in Vietnam, for further review and possible endorsement by MET/SG/23. <i>[Report of MET/IE WG/17, para. 5.9 – 5.10, refers]</i>	17 Jun 2019	Vietnam, Thailand and Secretariat	IN-PROGRESS COMPLETED
17/12	Propose any necessary updates to the ROBEX Handbook to reflect the actual requirements for OPMET information. <i>[Report of MET/IE WG/17, para. 5.11 – 5.13, refers]</i>	17 Jun 2019	States with low PIs for OPMET	CLOSED Superseded by later activities
17/16	Coordinate the requirements for all additional, new updates to the ROBEX Handbook and consolidate these into an update proposal for further review and possible adoption by MET/SG/23. <i>[Report of MET/IE WG/17, para. 6.5, refers]</i>	17 Jun 2019	Secretariat	CLOSED Superseded by later activities
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>	Before MET SG/27	Secretariat and Australia	IN PROGRESS ANP Table MET II-1 pending update

Unresolved action items recorded by MET/IE WG/16

ACTION ITEM	DESCRIPTION	BY DATE	RESPONSIBILITY	STATUS/REMARKS
16/4	Review the usage of the request-reply service provided and, where appropriate, arrange for the routine provision of OPMET bulletins as an alternative to the usage of the request-reply service for routine access to the stored OPMET data [Report of MET/IE WG/16, para. 5.8, refers].	Mar 2019	APAC RODBs	CLOSED Superseded by later activities

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	IN PROGRESS Coordinate necessary follow-up through the ICAO ANP

ACTION ITEM	DESCRIPTION	BY DATE	RESPONSIBILITY	STATUS/ REMARKS
				working group [Ref: MET/IE WG/16 Report para. 2.9].

APPENDIX B

MET/S WG – LIST OF ACTIONS

The proposed updates, which are additional to those presented in WP/05, are indicated with (red) ~~strikethrough~~ and (yellow) **highlighted** text.

New action items recorded by MET/S WG/13

ACTION ITEM	DESCRIPTION	BY DATE	RESPONSIBILITY	STATUS/REMARKS
MET/S WG/13 01	Ensure that the APAC Regional SIGMET Guide be updated to include MWO Ulaan Baatar in the MWO list and to include the additional headers used by MWO Tahiti for their SIGMETs. [Ref: MET/IE WG/21 and MET/S WG/13 Conjoint Session Report, para 2.13]	MET SG/27	Secretariat and Chair in coordination with the ad hoc group on the APAC Regional SIGMET Guide	TO COMMENCE
MET/S WG/13 02	Present explanatory information to help inform the APAC States on the proposed new provisions for quantitative volcanic ash concentration information. [Ref: MET/IE WG/21 and MET/S WG/13 Conjoint Session Report, para 3.10] Ref: MET SG/27, seminar presentation on QVA concentration information	MET SG/27	VAACs Darwin, Tokyo and Wellington	COMPLETED TO COMMENCE
MET/S WG/13 03	Share information on the update of the IAVW Handbook (due to be published in approx. 3 months) which would realign the guidance on exercise messages with Annex 3. [Ref: MET/S WG/13 Report, para 6.5]	MET SG/27	Secretariat	TO COMMENCE
MET/S WG/13 04	Develop a proposal for the MET/S WG work plan, balancing the advantages of virtual and in-person activities and to consider the role of VOLCEX SG going forward to be presented at a virtual meeting of the MET/S WG members before MET SG/27 [Ref: MET/S WG/13 Report, para 7.4] Ref: MET SG/27, WP/19 – Future of VOLCEX SG	MET SG/27	Chair MET/S WG, in coordination with the Chair MET/IE WG	IN PROGRESS TO COMMENCE

Unresolved action items recorded by MET/S WG/12

ACTION ITEM	DESCRIPTION	BY DATE	RESPONSIBILITY	STATUS/REMARKS
MET/S WG/12 01	Prepare and disseminate the ICAO letter advising States of SIGMET test deficiencies. [Ref: Report of Conjoint Session of MET/IE WG/20 and MET/S WG/12, para. 2.25.]	Before the next SIGMET test	Secretariat, in coordination with the ad hoc group (on AN deficiencies)	IN PROGRESS
MET/S WG/12 02	Publish the link to the online repository of SIGMET coordination activities on the ICAO APAC Office website. [Ref: Report of MET/S WG/12, para. 3.22.]	Before MET SG/26	Secretariat	COMPLETED https://www.icao.int/APAC/Pages/eDocs.aspx
MET/S WG/12 03	Prepare and process proposals for amendment to the ANP and other Regional Guidance to reflect the change in Phnom Penh FIR's location indicator from VDPP to VDPF. [Ref: Report of MET/S WG/12, para. 3.34.]	Before MET SG/2627	Secretariat, in coordination with participants from Cambodia	IN PROGRESS
MET/S WG/12 04	Prepare and process proposals for amendment to the ANP (Table MET II-1 – Meteorological Watch Offices) and the APAC Regional SIGMET Guide, Appendix D, to reflect the changes in Jakarta and Ujung Pandang FIR's location indicators from WIIZ to WIIF and WAAZ to WAAF, respectively. [Ref: Report of MET/S WG/12, para. 6.4.] Ref: MET SG/27, WP/14 – Review of the APAC ANP	Before MET SG/2627	Secretariat, in coordination with participants from Indonesia	IN PROGRESS The ANP amendment is still pending
MET/S WG/12 05	Delegate an ad hoc group to investigate further opportunities for educating users on the ICAO SWX service (e.g., education material or activities). [Ref: Report of MET/S WG/12, para. 6.8.]	Before MET SG/2627	Secretariat and Chair	IN PROGRESS

Unresolved action items recorded by the conjoint session of MET/IE WG/19 and MET/S WG/11

ACTION ITEM	DESCRIPTION	BY DATE	RESPONSIBILITY	STATUS/REMARKS
01	State letter request to user States to ensure the relevant operational units participate in the VAAC back-up tests and provide the VAACs with their current, valid AFTN addresses for receipt of the VAA messages. <i>[Ref: para. 1.1.-1.3., MET/IE WG/19 and MET/S WG/11 conjoint session]</i>	Before next scheduled test	Australia, New Zealand, Secretariat	TO COMMENCE
02	Investigate possible improvements to the template for the SIGMET test summary table to enable a more detailed analysis of the SIGMET tests, including analysis of more than one WC and/or WV SIGMET test message issued by the same MWO (which receives TCA and/or VAA from more than one TCAC and/or VAAC). <i>[Ref: para. 2.16., MET/IE WG/19 and MET/S WG/11 conjoint session]</i>	Before next scheduled test	SIGMET test Focal Points, Secretariat	TO COMMENCE

Unresolved action items recorded by MET/S WG/11

ACTION ITEM	DESCRIPTION	BY DATE	RESPONSIBILITY	STATUS/REMARKS
02	State letter to: a) Inform States of the need to prepare for the proposed WAFS and SADIS changes planned for November 2023; and b) Invite States to inform ICAO of any need for related technical assistance. <i>[Ref: para. 2.15., MET/S WG/11]</i>	Before MET SG/2627	Australia, New Zealand, Secretariat	IN PROGRESS; Ref: Decision MET SG/24-07
03	Investigate possible improvements to the template for the SIGMET test summary table to enable a more detailed analysis of the SIGMET tests, including analysis of more than one WC and/or WV SIGMET test message issued by the same MWO (which receives TCA and/or VAA from more than one TCAC and/or VAAC). <i>[Ref: para. 2.16., MET/IE WG/19 and MET/S WG/11 conjoint session]</i>	Before MET SG/2627	Ad hoc group	IN PROGRESS

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

ACTION ITEM	DESCRIPTION	BY DATE	RESPONSIBILITY	STATUS/REMARKS
01	Terms of Reference and Work Program – online coordination: Make use of regular online coordination meetings to facilitate progress on followup on the action items in the Task List/s [Ref: para. 2.3. and 7.3.]	As necessary	Secretariat and WG Chairs and members	IN PROGRESS CLOSED Superseded by other activities
07	OPMET performance indices – States' follow-up: Inform States concerned of the locations with low performance indices and advise the States to take appropriate corrective actions; address the above communication also the Regional OPMET Centres (ROCs) responsible for the collection of OPMET messages from the originating stations [Ref: para. 3.4. and 3.5.]	Before MET SG/26	Secretariat	IN PROGRESS; Ref: MET/IE-WG, 5: Work Plan, Activity 1 and Activity 2 CLOSED Superseded by other activities
21	ANP updates – State Volcano Observatories: Designate an ad-hoc group consisting of the Secretariat and members from the VAACs and RODBs to identify the APAC States with active or potential active volcanoes, which do not have a designated State volcano observatory listed in the APAC ANP, Vol I, Table MET I-1; conduct the necessary coordination to facilitate the States concerned with the designation of a State volcano observatory and listing it in the APAC ANP; coordinate the action above with the development of a comprehensive proposal for amendment of the ANP to reflect APAC States' current requirements for State volcano observatories [Ref: para. 4.17., 8.3. and 8.4.]	Before MET SG/2627	MET/S WG and Secretariat	IN PROGRESS; Amendment of ANP still pending
28	SIGMET test results – corrective action plan: Investigate the reason for the reduced reception of SIGMET test messages at Regional OPMET Centre (ROC) London compared to APAC RODB's and share	Before MET SG/26	MET/IE WG	IN PROGRESS; Ref: MET/IE-WG, 5: Work Plan, Activity 3 AND Ref: MET/S

	the results with MET/S for potential corrective action [Ref: para. 6.12.]			WG, 5. Work Plan, Activity 3 CLOSED Superseded by other activities
30	VAAC back-up test procedures – review and update: Refer to the pertinent information from IP/08 and determine appropriate action for the next review and update of the VAAC back-up test procedures [Ref: para. 8.25.] Ref: MET SG/27, WP/13 – Update of VAAC backup procedures in APAC Regional SIGMET Guide	Before MET SG/2627	MET/IE WG and MET/S WG	IN PROGRESS; Ref: MET/IE WG, 5. Work Plan, Activity 4
31	Special air-reports – promoting issuance of: Continue to coordinate the required follow-up action (outstanding action item no. 8) concerning promoting the issuance of special air-reports; publicise by way of State letter (and/or other channels) the importance of exchanging special airreports between airlines, ATS units and MWOs (and aerodrome meteorological offices) [Ref: para. 7.2. and 8.21.]	Before MET SG/26	Secretariat	IN PROGRESS; Ref: Action Item MET/R WG 9/1; Webinar on Special Air Reports, 17 June 2021 CLOSED Superseded by other activities
32	Air navigation deficiencies – resolution of: Continue to support States, as necessary, such as Nepal, with developing and implementing their corrective action plans for the resolution of air navigation deficiencies [Ref: para. 9.4.]	Before MET SG/26	Secretariat	IN PROGRESS; Ref: MET/S WG, 5. Work Plan, Activity 6 CLOSED Superseded by other activities
33	WAFS and SADIS – preparation for proposed changes: Develop appropriate actions in the work program to facilitate States’ awareness of and planning for the proposed (WP/25) WAFS and SADIS changes in November 2023 [Ref: para. 10.5.]	Before MET SG/26	MET/S WG	IN PROGRESS CLOSED Superseded by other activities

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

ACTION ITEM	DESCRIPTION	BY DATE	RESPONSIBILITY	STATUS/ REMARKS
5	Submit a proposal to MET/SG/23 for further review and possible adoption of the proposed update to the Asia/Pacific Regional SIGMET Guide developed by the designated ad-hoc group, incorporating the consequential changes identified by the meeting arising from the following: i. Development of MWO Phnom Penh in Cambodia (MET/IE WG/17 – WP/03, Appendix II, refers); ii. Proposals made by Australia in relation to WV SIGMET (MET/IE WG/17 – MET/ S WG/9 – WP/C4, para. 3.1, (b) and (c), refers); and iii. Introduction of space weather advisory information (MET/IE WG/17 – WP/05, para. 3.1 (c), refers). <i>[Report of MET/S WG/9, para. 6.8 – 6.9, refers]</i>	Before MET SG/26	Designated SIGMET Guide ad-hoc group and Secretariat	IN PROGRESS; Amendment of ANP Vol. II still pending CLOSED Superseded by other activities

APPENDIX C

MET/R WG – LIST OF ACTIONS

The proposed updates, which are additional to those presented in WP/06, are indicated with (red) ~~strikethrough~~ and (yellow) **highlighted** text.

Unresolved action items recorded by MET/R WG/11

ACTION ITEM	DESCRIPTION	BY DATE	RESPONSIBILITY	STATUS/REMARKS
MET/R WG/11 01	Propose further updates to the (MET/R WG work plan) Deliverable No. 2 and Deliverable No. 5 timeframe, responsibility, and requirements details. [Ref: MET/R WG/11 Report, 5.2.] - Deliverable 2: <i>Draft regional guidance material on MET information needed to support the elements of the APAC Seamless ANS Plan</i> - Deliverable 5: <i>A coordinated review of the APAC ANP Volume III, including proposals for improvements to the ANRF and other parts of Volume III, to clarify the MET-related implementation planning guidance</i>	MET/R WG/12	Chair and Secretariat	To begin In progress

Unresolved action items recorded by MET/R WG/09

ACTION ITEM	DESCRIPTION	BY DATE	RESPONSIBILITY	STATUS/REMARKS
MET/R WG/09 01	Publicise the SIGMET Guide and, in particular, the guidance indicating the importance of exchanging special air-reports between airlines, ATS units and MWOs (and aerodrome meteorological offices (AMOs)) in support of improved SIGMET service and flight safety, by way of ICAO State letter (and/or other channels) with distribution to pilots and ATS units supported by States and relevant s organisations, as appropriate [include reference to the ICAO APAC Webinar on <i>Special Air-Reports needed by MET to Support Flight Safety</i> , conducted on 17 June 2021]	July 2020 Ongoing	Secretary and MET/R WG-members MET/S WG	In progress Superseded and be transferred to MET/S WG
