



ICAO

*International Civil Aviation Organization***WORKING PAPER****Twenty-fifth Meeting of the Meteorology Sub-group
(MET SG/25)**

Online, 18 – 22 October 2021

Agenda Item 2: Review outcomes from previous meetings**REVIEW OUTCOMES FROM MET SG/24**

(Presented by the Secretariat)

SUMMARY

This paper invites the meeting to review the outcomes from the Twenty-Fourth Meeting of the Meteorology Sub-group (MET SG/24) and consider further actions, as necessary, to complete the follow-up work from MET SG/24.

1. INTRODUCTION

1.1 The ICAO Asia and Pacific (APAC) Office hosted the Twenty-Fourth Meeting of the Meteorology Sub-group (MET SG/24) online from Bangkok, Thailand, from 16 to 20 November 2020.

1.2 This paper invites the meeting to review the outcomes from MET SG/24 and consider further actions, as necessary, to complete the follow-up work from MET SG/24.

2. DISCUSSION

2.1 The Report from MET SG/24, and all related meeting documentation, is available at the ICAO APAC Office website (www.icao.int/apac/Meetings/Meeting List-2020/MET SG/24).

2.2 For easy reference, the primary outcomes from MET SG/24, i.e., the MET SG/24 Draft Conclusions, Draft Decisions, Conclusions, Decisions and additional agreed actions/tasks, are reproduced in **Appendix A** and **Appendix B** to this paper and discussed further below.

MET SG/24 – Draft Conclusions and Draft Decisions

2.3 MET SG/24 formulated four (4) Draft Conclusions and one (1) Draft Decision, for further consideration by the APAC Air Navigation Planning and Implementation Regional Group (APANPIRG), as follows:

- Draft Conclusion MET SG/24-02: *APAC Regional Air Navigation Plan (ANP), Volume III*
- Draft Conclusion MET SG/24-04: *Resolution of Air Navigation Deficiency AP-MET-01*
- Draft Conclusion MET SG/24-06: *0.25 degree WAFS hazard data*
- Draft Conclusion MET SG/24-10: *Implementation of IWXXM*
- Draft Decision MET SG/24-17: *Updates to terms of reference and work plan of MET SG*

Agenda Item 2

18-22/10/21

Further discussion on the outcomes of APANPIRG's consideration of the above Draft Conclusions and Draft Decision is presented in the separate working paper, WP/04 – *Follow-up action from APANPIRG/31*.

MET SG/24 – Conclusions and Decisions

2.4 MET SG/24 adopted six (6) Conclusions for the attention of States or action by the ICAO, eight (8) Decisions related to the internal working arrangements of the MET SG, as follows:

- Decision MET SG/24-01: *Updates to legacy FASID Table information*
- Conclusion MET SG/24-03: *Survey of State Meteorological Information Supporting Air Traffic Management*
- Decision MET SG/24-05: *MET Deficiencies*
- Decision MET SG/24-07: *November 2023 WAFS and SADIS Upgrades*
- Conclusion MET SG/24-08: *Volcanic Ash Information Conflict Reduction*
- Conclusion MET SG/24-09: *IWXXM Survey and Online Workshop*
- Conclusion MET SG/24-11: *IWXXM Exchange Approach*
- Conclusion MET SG/24-12: *Development of Online Register of the status of IWXXM Exchange*
- Decision MET SG/24-13: *Development of APAC User Requirements for SWIM-based MET Information Services Supporting ATFM*
- Decision MET SG/24-14: *Updates to Regional SIGMET Guide*
- Decision MET SG/24-15: *Updates to ROBEX Handbook*
- Decision MET SG/24-16: *Updates to Regional Guidance for Tailored Meteorological Information and Services to Support ATM Operations*
- Decision MET SG/24-18: *Updates to terms of reference and work plan of and MET/R WG, MET/IE WG and MET/S WG*
- Conclusion MET SG/24-19: *Amendments to Regional Guidance to reflect changes to location indicators for Hanoi FIR and Ho Chi Minh FIR*

2.5 Further details concerning the follow-up to the above MET SG/24 Conclusions and Decisions is provided in **Appendix A** to this paper.

MET SG/24 – Agreed actions

2.6 In addition to the above, MET SG/24 agreed to six (6) new actions in the MET SG Task List, which also includes the seven (7) actions from the previous meeting (MET SG/23) that were yet to be completed.

2.7 The follow-up status on the MET SG Task List agreed actions are indicated in **Appendix B** to this paper.

3. ACTION BY THE MEETING

3.1 This paper invites the meeting to review the outcomes from MET SG/23, as discussed above and presented in **Appendix A** and **Appendix B** to this paper, and consider further actions, as necessary, to complete the follow-up work from MET SG/23.

APPENDIX A

MET SG/24 Conclusions and Decisions

Decision MET SG/24-01: Updates to legacy FASID Table information	
What: That, ICAO and States update and incorporate the required information from the legacy Facilities and Service Implementation Document (FASID) Tables relating to meteorology, into existing ICAO APAC regional guidance documentation as follows:	
FROM: Legacy FASID Table	TO: Existing APAC regional guidance
Table MET 2A - OPMET Information (METAR, SPECI and TAF) Required in SADIS and WIFS	APAC ROBEX Handbook
Table MET 3A - Tropical cyclone advisory centres	APAC Regional SIGMET Guide
Table MET 3B - Volcanic ash advisory centres	APAC Regional SIGMET Guide
Chart MET 1 - Areas of Responsibility of the TCACs	APAC Regional SIGMET Guide
Chart MET 2 - Map of Areas of Responsibility of VAAC and Corresponding FIR	APAC Regional SIGMET Guide
Why: To provide States with access to required up to date information, previously contained in the legacy ANP, FASID Tables, and not replicated in the current APAC ANP, based on June 2014, ICAO Council approved common template to be used for Regional ANPs.	
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	
Follow-up: <input type="checkbox"/> Required from States	
When: As soon as practicable	Status: Adopted by Subgroup
Who: <input checked="" type="checkbox"/> Sub groups <input type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other:	

Follow-up:

- The designated MET/S WG ad-hoc group has already developed and published the required updates in the latest version of the ICAO APAC Regional SIGMET Guide (*APAC Regional SIGMET Guide, Eighth Edition* — November 2020, refers).
- The above edition of the SIGMET Guide incorporates the updates approved by MET SG/24 and the updated information from the legacy Facilities and Service Implementation Document (FASID), Table MET 3A – *Tropical cyclone advisory centres*, Table MET 3B – *Volcanic ash advisory centres*, Chart MET 1 – *Areas of Responsibility of the TCACs*, and Chart MET 2 – *Map of Areas of Responsibility of VAAC and Corresponding FIR*.
- In progress: MET/IE WG, Work Plan, Activity 6.6, and Outstanding Task List – MET/IE WG/18 and MET/S WG/10, Action Item #18

Conclusion MET SG/24-03: Survey of State Meteorological Information Supporting Air Traffic Management
What: That, the MET SG approve the proposed terms of reference and the survey questionnaire at the Appendix 6 to the MET SG/24 Report and inform ATM SG/8 in November 2020 and then circulate the survey questionnaire for States to respond in early 2021.
Why: To inform ICAO (and States) of the provision of current and future meteorological (MET) information services by States specifically to support Air Traffic Management (ATM), in particular Air Traffic Flow Management (ATFM).
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

Agenda Item 2

18-22/10/21

Follow-up: <input checked="" type="checkbox"/> Required from States	
When: Early 2021	Status: 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 type="checkbox"/> Other: MET/R WG	

Follow-up:

- In progress: MET/R WG/10, Action Item #04, and MET/R WG work plan, Deliverable 2: *Analysis of MET information used in the Region specifically to support ATM operations*

Decision MET SG/24-05: MET Deficiencies	
What: That a MET/S WG ad hoc group be formed* to work with relevant members of the MET/IE WG and, utilizing the guidance in the APANPIRG Procedural Handbook, Part V: <i>Uniform methodology for the identification, assessment and reporting of air navigation shortcomings and deficiencies</i> and other relevant ICAO documentation, assist the ICAO Secretariat with the following: <ul style="list-style-type: none"> a) Define a process, based on the APANPIRG Procedural Handbook, for identifying, analysing, removing and proposing MET Deficiencies; b) Develop templates to be used for Deficiency Corrective Action Plans (CAP), Progress Reports and Final Reports; c) Develop thresholds for Deficiencies based on OPMET Monitoring performance indicators and SIGMET testing; d) Review the analysis of the annual, and any ad hoc, OPMET Monitoring, and SIGMET Tests against agreed thresholds; e) Identify deficiencies from the OPMET Monitoring and SIGMET Test analysis, along with other tests and exercises, mission reports, analysis of differences against ICAO provisions, aircraft accident and incident reports and reports provided by users of air navigation services; f) Work with States concerned to develop a CAP, arrange for testing and monitoring and assist with the reporting to ICAO on the resolution of air navigation deficiencies; and g) Report recommended updates to MET Deficiencies, through MET/S WG, to MET SG. 	
Why: To optimize the MET SG assistance to APANPIRG towards the identification and resolution of specific air navigation deficiencies in the field of aeronautical meteorological (MET) services.	
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	
Follow-up: <input type="checkbox"/> Required from States	
When: November 2020	Status: Adopted by Subgroup
Who: <input checked="" type="checkbox"/> Sub groups <input type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input checked="" type="checkbox"/> Other: MET/S WG	

*Ad hoc group Members (alphabetical order, surname):

- Paula ACETHORP, *Rapporteur* (New Zealand)
- CHEONG Wee Kiong (Singapore, RODB Singapore)
- Jarrad DENMAN (Australia, VAAC Darwin)
- Mike GRAF (United States)
- Keiko ITO (Japan)
- Christy Y.Y. LEUNG (Hong Kong, China)
- Sujin PROMDUANG (Thailand, ROC Bangkok)
- THAM Yap Fung (Singapore, RODB Singapore)
- Kentaro TSUBOI (Japan, RODB Tokyo)

Follow-up:

- MET/S WG/11 proposed updates to the MET/S WG work plan (Activity 6.1) to incorporate the specific actions aligned with dot points a) to g), above.

Decision MET SG/24-07: November 2023 WAFS and SADIS Upgrades	
What: That MET/S WG develops appropriate actions to facilitate WAFS and SADIS user States' preparations for the proposed WAFS and SADIS changes planned for November 2023.	
Why: Significant changes to the data provided on SADIS are coming in November 2023	
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	
Follow-up: <input checked="" type="checkbox"/> Required from States	
When: November 2020	Status: 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 type="checkbox"/> Other:	

Follow-up:

- TBD

Conclusion MET SG/24-08: Volcanic Ash Information Conflict Reduction	
What: That the ICAO APAC Volcanic Ash Exercises Steering Group (VOLCEX/SG) supports the Informal South Pacific ATS Coordination Group in conducting a workshop to discuss proactive measures which could be used to minimise the likelihood of conflicting volcanic ash information.	
Why: To support aviation safety during volcanic eruptions, by reducing the likelihood of conflicting volcanic ash information being supplied to aviation.	
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	
Follow-up: <input type="checkbox"/> Required from States	
When: On request from ISPACG (likely 2021)	Status: Adopted by Subgroup
Who: <input checked="" type="checkbox"/> Sub groups <input type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other:	

Follow-up:

- TBD

Conclusion MET SG/24-09: IWXXM Survey and Online Workshop	
What: That MET/IE, organize and conduct another regional survey on the following: a) Status of States' progress on the planning and implementation of the following: i. dissemination of meteorological information in IWXXM GML form; and ii. AFS connections supporting AMHS with FTBP and IHE; and b) States' requirements for another Regional IWXXM-specific seminar or workshop during 2021.	
Why: Amendment 79 to Annex 3 specifies that, applicable from 5 November 2020, States shall disseminate specific meteorological information (i.e., METAR/SPECI, TAF, SIGMET, AIRMET and volcanic ash, tropical cyclone and space weather advisory information) in IWXXM GML form. To date, it is apparent that few States (in APAC) are currently operationally exchanging IWXXM formatted data.	
Expected impact: <input type="checkbox"/> Political / Global <input checked="" type="checkbox"/> Inter-regional <input checked="" type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical	
Follow-up: <input checked="" type="checkbox"/> Required from States	
When: Now	Status: Draft to be adopted by PIRG
Who: <input 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:	

Follow-up:

- In progress: MET/IE WG, Work Plan, Activity 7.2

Agenda Item 2

18-22/10/21

Conclusion MET SG/24-11: IWXXM Exchange Approach	
What: That, IWXXM exchange in APAC Region shall be aligned with <i>Guidelines for the Implementation of OPMET Data Exchange using IWXXM</i> (fourth edition, November 2020) and, specifically, that Regional OPMET Centres (ROCs) are responsible for the distribution of all types of IWXXM formatted OPMET data to States within the Asia Pacific Region.	
Why: While the ICAO provisions for the dissemination of meteorological information in both TAC and IWXXM form coexist, due to technical differences between the old and new formats, the Regional OPMET exchange scheme for IWXXM formatted data shall necessarily differ from the traditional OPMET exchange scheme for TAC messages.	
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	
Follow-up: <input checked="" type="checkbox"/> Required from States	
When: As soon as practicable	Status: 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 type="checkbox"/> Other: MET/IE WG	

Follow-up:

- In progress: MET/IE WG/19, Task List, Action Item #1 *Propose updates to the ROBEX Handbook.*

Conclusion MET SG/24-12: Development of Online Register of the status of IWXXM Exchange	
What: That, the MET SG supports the development of an online register of the status of IWXXM exchange in the APAC Region to collate and maintain reliable information about implementation status of AMHS and FTBP between the annual ROBEX Handbook update, and to facilitate the States to identify the possible alternate dissemination paths for IWXXM exchange so that ROCs could distribute the IWXXM to other capable ROCs in the APAC region as far as possible.	
Why: ROCs need a channel to share timely updates of their status of implementation of IWXXM exchange, including their IWXXM-capable AMHS addresses and readiness to receive IWXXM, supported file size, AMHS status and the status in transmitting NOC's IWXXM report.	
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	
Follow-up: <input checked="" type="checkbox"/> Required from States	
When: As soon as practicable	Status: 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 type="checkbox"/> Other: MET/IE WG	

Follow-up:

- In progress: MET/IE WG/19, Task List, Action Item #06 *Propose updates to the ROBEX Handbook.*

Decision MET SG/24-13: Development of APAC User Requirements for SWIM-based MET Information Services Supporting ATFM	
What: That, the MET SG approves the terms of reference at the Appendix 8 to the MET SG/24 Report regarding the scope and objectives of the MET/R ad hoc group to develop SWIM-based MET information services specifically addressing the needs of ATFM in the APAC Region.	
Why: To support efforts for effective MET/ATM integration, provide the baseline for further development of the regional SWIM data catalogue and service catalogue and support the development of future MET Information Exchange Services in the Region	
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	
Follow-up: <input type="checkbox"/> Required from States	

When: As soon as practicable	Status: Adopted by Subgroup
Who: <input checked="" type="checkbox"/> Sub groups <input type="checkbox"/> APAC States <input type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input checked="" type="checkbox"/> Other: MET/R WG	

Follow-up:

- In progress: MET/R WG work plan, Deliverable 8: *Development of APAC Use Case and User Requirements for SWIM-based MET Information Services Supporting ATFM*

Decision MET SG/24-14: Updates to Regional SIGMET Guide	
What: That, the MET SG approves the updates to the SIGMET Guide presented in Appendix 9 to the MET SG/24 Report for use by States and publishing on the ICAO APAC Office website.	
Why: To realign the SIGMET Guide with the Amendment 79 to Annex 3, update the SIGMET test procedure, reflect changes to MWOs designated by Australia, apply minor corrections and include the legacy ANP FASID Table information (ref: Decision MET SG/24-1).	
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	
Follow-up: <input type="checkbox"/> Required from States	
When: November 2020	Status: Adopted by Subgroup
Who: <input checked="" type="checkbox"/> Sub groups <input type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other: MET/S WG	

Follow-up:

- The designated MET/S WG ad-hoc group has already developed and published the required updates in the latest version of the ICAO APAC Regional SIGMET Guide (*APAC Regional SIGMET Guide, Eighth Edition* — November 2020, refers).
- The above edition of the SIGMET Guide incorporates the updates approved by MET SG/24 and the updated information from the legacy Facilities and Service Implementation Document (FASID), Table MET 3A – *Tropical cyclone advisory centres*, Table MET 3B – *Volcanic ash advisory centres*, Chart MET 1 – *Areas of Responsibility of the TCACs*, and Chart MET 2 – *Map of Areas of Responsibility of VAAC and Corresponding FIR*.

Decision MET SG/24-15: Updates to ROBEX Handbook	
What: That, the MET SG approves the updates to the ROBEX Handbook at the Appendix 10 to the MET SG/24 report for use by States and publishing on the ICAO APAC Office website.	
Why: To (a) reflect changes made by Australia, Republic of Korea and Thailand to ROBEX Bulletins compiled by Regional OPMET Centres (ROCs) Brisbane (YBBN) (effective on 5 November 2020), Incheon (RKSI) and Bangkok (VTBB) (effective on 14 May 2020); (b) align the “Changes to OPMET Bulletin Procedures” (METNO procedures) with the equivalent procedures in the ICAO EUR Region; and update the States’ ROBEX Focal Point information; (c) include the information from the legacy ANP FASID Tables (ref: Decision MET SG/24-1); and include a link to the online register provided by the APAC ROCs for IWXXM-exchange-capability (ref: Conclusion MET SG/24-12)	
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	
Follow-up: <input type="checkbox"/> Required from States	
When: November 2020	Status: Adopted by Subgroup
Who: <input checked="" type="checkbox"/> Sub groups <input type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input checked="" type="checkbox"/> Other: MET/IE WG	

Follow-up:

Agenda Item 2

18-22/10/21

- In progress: MET/IE WG/19, Task List, Action Item #06, 10 and 16: *Propose updates to the ROBEX Handbook*, and Outstanding Task List – MET/IE WG/18 and MET/S WG/10, Action Item #18

Decision MET SG/24-16: <i>Updates to Regional Guidance for Tailored Meteorological Information and Services to Support ATM Operations</i>	
What: That, the MET SG approve the proposed updates to the <i>APAC Regional Guidance for Tailored Meteorological Information and Services to Support Air Traffic Management Operations</i> at the Appendix 11 to the MET SG/24 report for use by States and publishing on the ICAO APAC Office website.	
Why: To provide States with updated examples from Hong Kong, China, Republic of Korea and Singapore and make a few improvements to the main part of document published for use by States the ICAO APAC eDocuments website (https://www.icao.int/APAC/Pages/eDocs.aspx).	
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	
Follow-up: <input type="checkbox"/> Required from States	
When: November 2020	Status: Adopted by Subgroup
Who: <input checked="" type="checkbox"/> Sub groups <input type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input checked="" type="checkbox"/> Other: MET/R WG	

Follow-up:

- In progress: MET/R WG/10, Action Item #01, 02 and 03: *APAC Regional Guidance for Tailored Meteorological Information and Services to Support Air Traffic Management Operations*, and MET/R WG work plan, Deliverable 4: *Draft regional guidance material for tailored MET information supporting ATM operations*

Decision MET SG/24-18: <i>Updates to terms of reference and work plan of MET/R WG, MET/IE WG and MET/S WG</i>	
What: That, the MET SG approve the updated terms of reference and work plan documents for MET/R WG, MET/IE WG and MET/S WG at the Appendix 3, Appendix 4 and Appendix 5 to the Report of MET SG/24.	
Why: To ensure alignment of the work of the MET SG and its contributory bodies.	
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	
Follow-up: <input type="checkbox"/> Required from States	
When: November 2020	Status: Adopted by Subgroup
Who: <input type="checkbox"/> Sub groups <input type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input checked="" type="checkbox"/> Other: MET WGs	

Follow-up:

- MET/R WG, MET/IE WG and MET/S WG reviewed the updated terms of reference and work plan.

Conclusion MET SG/24-19: <i>Amendments to Regional Guidance to reflect changes to location indicators for Hanoi FIR and Ho Chi Minh FIR</i>	
What: That, Vietnam in coordination with the Secretariat, initiate appropriate proposals for amendment of Regional Guidance Material and the APAC ANP to reflect the current requirements in Vietnam concerning the location indicators for Hanoi FIR and Ho Chi Minh FIR.	
Why: To ensure alignment of the Regional Guidance material with the current requirements in Vietnam	
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	
Follow-up: <input type="checkbox"/> Required from States	
When: November 2020	Status: Adopted by Subgroup
Who: <input checked="" type="checkbox"/> Sub groups <input type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input checked="" type="checkbox"/> Other: MET WGs	

Follow-up:

- The designated MET/S WG ad-hoc group has already developed and published the required updates in the latest version of the ICAO APAC Regional SIGMET Guide (*APAC Regional SIGMET Guide, Eighth Edition* — November 2020, refers).
- The above edition of the SIGMET Guide incorporates the updates approved by MET SG/24 and the updated information from the legacy Facilities and Service Implementation Document (FASID), Table MET 3A – *Tropical cyclone advisory centres*, Table MET 3B – *Volcanic ash advisory centres*, Chart MET 1 – *Areas of Responsibility of the TCACs*, and Chart MET 2 – *Map of Areas of Responsibility of VAAC and Corresponding FIR*.

Agenda Item 2

18-22/10/21

APPENDIX B**MET SG Task List**

Action No.	Detailed description of actions	Responsibility	Target date	Status
24/01	<p><u>Terms of Reference and Work Plan</u></p> <p>a) Adjust the references to “APAC Seamless ATM Plan” to reflect the re-named APAC Seamless “ANS Plan”.</p> <p>b) Add a column in the work plan table to enable the Sub-group to record the current status of progress on the work plan deliverables.</p> <p>c) Add timing of invitation (State Letter) and reminders for paper submissions</p> <p>[Ref: MET SG/24 Report, para. 1.5]</p>	Secretary	Nov 2020	Completed In progress
24/02	<p><u>Follow-up on Decision MET SG/23-3: Improved Regional guidance for SIGMET for volcanic ash forecast to cross FIR boundaries</u></p> <p>Examine the Report of the volcanic ash exercise APAC VOLCEX 18/02 and, based on the challenges encountered / reported by the participants of the exercise, consider developing examples of how to coordinate the issuance of SIGMET information for volcanic ash which is forecast in adjacent FIRs.</p> <p>[Ref: MET SG/24 Report, para. 2.5]</p>	MET/S WG	MET/S WG/11 (Mar 2021)	In progress
24/03	<p><u>Availability of Annex 3</u></p> <p>Investigate the late the late availability of the Annex 3 amendment 79, which led to States having inadequate time to implement necessary changes.</p> <p>[Ref: MET SG/24 Report, para. 3.10]</p>	Secretary	APANPIRG/31 (Dec 2020)	In progress
24/04	<p><u>Operational MWO Phnom Penh – Consequential updates to the Regional guidance material</u></p> <p>Delete the notes indicating the arrangement for issuance of SIGMET on behalf of MWO Phnom Penh by MWO Chengdu from the legacy APAC FASID, Table MET 3A – Tropical cyclone advisory centres, and Table MET 3B – Volcanic ash advisory centres and SIGMET Guide.</p> <p>[Ref: MET SG/24 Report, para. 3.16]</p>	Secretariat	Nov 2020	Completed In progress
24/05	<p><u>SIGMET Guide updates</u></p> <p>Coordinate future proposals to update the SIGMET Guide with the other ICAO Regions and include guidance relevant to SIGMET information in IWXXM GML form.</p> <p>[Ref: MET SG/24 Report, para. 6.4]</p>	MET/S WG	MET/S WG/11 (Mar 2021)	To begin MET/S WG/11 proposed updates to the MET/S WG work plan (Activity 4.1 and 4.2)
24/06	<p><u>Election of Chairperson</u></p> <p>Include in the agenda for the next meeting the election of Chairperson and Vice-Chairperson. Members to submit nominations of suitable candidates no later than 2-months prior to the next meeting.</p> <p>[Ref: MET SG/24 Report, para. 8.5]</p>	Chair and Secretary	2-months before MET SG/25	Completed In progress

Action No.	Detailed description of actions	Responsibility	Target date	Status
23/01	Coordinate the necessary Draft proposals for amendment of the ANP Volume I and Volume II, in coordination with States concerned (Ref. Work plan of MET SG: <i>Draft amendment proposal for APAC ANP to fulfil missing data in Tables MET</i>) [Report, para. 2.8]	Secretariat	As soon as practicable	In progress
23/03	Conduct a coordinated review and update of the terms of reference and work plans to realign the working groups with the work plan of the MET SG [Report, para. 2.10]	Chairs MET/IE WG, MET/S WG, MET/R WG and MET SG, in conjunction with Secretariat	Before APANPIRG/30	Completed In progress
23/04	Distribute the following documents, as endorsed by the ICAO METP/4, by State letter in order to publicize the content and purpose of each document and to invite feedback from relevant stakeholders: a) <i>MET-SWIM Plan</i> ; b) <i>Guidelines for the Implementation of OPMET Data Exchange Using IWXXM</i> ; c) <i>Roadmap for International Airways Volcano Watch (IAVW) in Support of International Air Navigation</i> ; and d) <i>“White Paper” on Future Aeronautical Meteorology Information Service Delivery</i> [Report, para. 2.20]	Secretariat	As soon as practicable	In progress
23/08	Assist Solomon Islands to perform OPMET monitoring to support the validation of the corrective action to resolve the APANPIRG air navigation deficiencies and to prepare the full Report to enable APANPIRG to remove the deficiencies. [Report, para. 4.7.]	Secretariat, in conjunction with Solomon Islands and States (including Australia)	As soon as practicable	In progress
23/12	Incorporate the <i>Guidelines for Operational SIGMET Coordination</i> into the SIGMET Guide and to keep it under review and propose updates as necessary [Report, para. 6.9.]	MET/S WG (SIGMET Guide) ad-hoc group	As soon as practicable	Completed In progress
23/13	Continue to develop the draft survey questionnaire (on the provision of current and future MET information and services by States specifically to support ATM and, in particular, ATFM operations) based on feedback from MET SG/23, including developing more clear terms of reference and ensuring alignment with the scope of work of the MET/R WG [Report, para. 6.11.-6.13.]	MET/R WG ad-hoc group (rapporteur Australia)	Next MET/R WG meeting	In progress
23/14	Conduct an ATM-focussed review on the <i>Asia/Pacific Regional Guidance for Tailored Meteorological Information and Services to Support Air Traffic Management (ATM) Operations</i> [Report, para. 6.14.]	Secretariat	Before ATM/SG/7	In progress
