



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 1: Organizational matters**REVIEW THE TERMS OF REFERENCE**

(Presented by the Secretariat)

SUMMARY

This paper presents the terms of reference of the Meteorology Sub Group (MET SG), which APANPIRG last updated in 2020 to ensure alignment of the work of the MET SG and its contributory bodies. The paper invites the meeting to review the terms of reference of the MET SG and propose revisions or updates as necessary to ensure the deliverables of the MET SG and its support of APANPIRG remain focused on the current and future needs of the APAC Region.

1. INTRODUCTION

1.1 The role of the MET SG is to support APANPIRG in its planning and implementation activities in the field of meteorological service for international air navigation [Decision APANPIRG/26/65 — Revised APANPIRG Structure, Terms of Reference and APANPIRG Sub Group Empowerment, refers].

1.2 This paper invites the meeting to review the current terms of reference of the MET SG and propose updates as necessary for further review and possible adoption by APANPIRG.

2. DISCUSSION

2.1 The terms of reference of the MET SG describe the objectives, functions, establishment, membership, Chairing and Secretary, meetings, reporting, delegated authority and the plan of work of the MET SG.

2.2 To optimize the support provided by MET SG to APANPIRG and ensure the deliverables of MET SG remain focused on the current and future needs of the APAC Region, the MET SG keeps the terms of reference under regular review.

2.3 APANPIRG/31, conducted online from 14 to 16 December 2020, approved updates proposed by MET SG/24 to the terms of reference and work plan document (for MET SG) to ensure alignment of the work of the MET SG and its working groups, including the addition of an annual (quarterly) schedule of coordination meetings for the Chairs of MET SG and its working groups.

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2.4 The updated MET SG terms of reference, approved by APANPIRG/31, is provided in the **Attachment** to this paper.

3. ACTION BY THE MEETING

3.1 This paper invites the meeting to review the terms of reference of the MET SG (**Attached**) and propose updates as necessary to ensure the deliverables of the MET SG and its support of APANPIRG remain focused on the current and future needs of the APAC Region.

ATTACHMENT

(Adapted from APPENDIX A to the APANPIRG/31 Report on Agenda Item 3.5)

METEOROLOGY SUB-GROUP (MET SG) TERMS OF REFERENCE AND PLAN OF WORK

Editorial Note: Updates approved by APANPIRG/31 shows deleted text using strikethrough (~~text to be deleted~~), and added text with grey shading (text to be inserted).

1. Objectives of the MET SG

- a) Ensure the continuous and coherent development of the MET parts of the Asia/Pacific Regional Air Navigation Plan (APAC ANP) and other relevant regional documentation in a manner that is harmonized with adjacent regions, consistent with ICAO standards and recommended practices (SARPs), the Global Air Navigation Plan and the Global Aviation Safety Plan and reflects global requirements;
- b) Facilitate the implementation of aeronautical meteorological systems and services, as identified in the APAC ANP, Aviation System Block Upgrade (ASBU) priority modules and Asia/Pacific Seamless ~~ATMANS~~ Plan elements, with due observance to the primacy of air safety, regularity and efficiency; and
- c) Identify and address specific air navigation deficiencies in the field of aeronautical meteorological (MET) services.

2. Functions of the MET SG:

- a) Review MET parts of the APAC ANP, prepare amendment proposals as necessary to reflect updates and changes in the operational and global requirements;
- b) Monitor the level of and, as necessary, facilitate the implementation of aeronautical meteorological services to support the effective implementation of ASBU priority modules and the Asia/Pacific Seamless ~~ATMANS~~ Plan elements;
- c) Identify air navigation deficiencies in the field of aeronautical meteorology, e.g., through systems performance monitoring) and, where necessary, propose appropriate corrective action and facilitate the development and implementation of action plans by States to resolve identified deficiencies;
- d) Review and update the APANPIRG list of air navigation deficiencies in the field of aeronautical meteorology, as necessary, to reflect the current situation;
- e) Monitor research and development and trials and demonstrations in the field of aeronautical meteorology and other relevant areas and facilitate the transfer of this information and expertise, as necessary, between States;
- f) Make specific recommendations and develop guidance materials aimed at improving aeronautical meteorological services through the use of existing and/or new procedures, facilities and technologies;

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g) Review and identify inter-regional and intra-regional coordination issues in the field of aeronautical meteorology and, as necessary, recommend actions to address those issues; and

h) Identify and progress environmental initiatives related to aeronautical meteorology.

3. Establishment of the MET SG

3.1. The Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG) established the MET SG to assist in its planning and implementation work, charging MET SG with preparatory work on specifically defined problems in the field of aeronautical meteorology requiring expert advice for their resolution. APANPIRG also appointed MET SG as the 'parent' group for other contributory bodies working in the field of aeronautical meteorology for APANPIRG.

4. Membership of the MET SG

4.1. Membership of the MET SG comprises experts provided by States, whether Members or not of the APANPIRG, International Organizations and bodies having experience in the provision of aeronautical meteorological information and services.

5. Chairing and Secretary of the MET SG

5.1. The MET SG shall elect a Chairperson, and Vice-Chairperson if needed, from the experts provided by States. The maximum term of the Chairperson and Vice Chairperson is four years. The Secretary of APANPIRG will appoint the Secretary of the MET SG.

6. Meetings of the MET SG

6.1. The Chairperson of the MET SG, in consultation with Members and the Secretary, shall decide the date and duration of Meetings. As a rule, the MET SG should agree, at each Meeting, on the date and duration of the next Meeting and on a tentative schedule of future Meetings.

7. Documentation and Record of Meetings of the MET SG

7.1. The MET SG shall record the proceedings of its Meetings in the form of a Report or a Summary and submit the Report or Summary for review and consideration by APANPIRG. A Meeting Report should cover completed action on any part of the MET SG work plan and outline the needs of MET SG for further directives or guidance from the APANPIRG to proceed in its work. Reports on Meetings shall be of a simple layout and as concise as practicable and should normally cover:

- a) Short introduction;
- b) Summary of findings (presented in the order of discussion of the agenda items, including any proposals for action); and
- c) Work plan and schedule for future Meetings.

7.2. The Secretary should publish the Report as early as practicable (21-days) after the Meeting.

7.3. The Secretary should disseminate the meeting invitation as early as practicable, i.e., not less than 3-months before the Meeting, and reminders for submission of papers approx. 6-weeks and 1-week before the due date for submission of papers.

7.4. Contributors should submit papers to the ICAO Secretariat as early as practicable, i.e., 28-days before the Meeting at which they are intended to be considered. The Secretary should publish papers, and send a notification of their availability, as early as practicable, i.e., 14-days before the Meeting at which they are intended to be considered.

7.5. The Secretary, in consultation with the Chairperson, may decide to accept papers submitted less than 28-days before the Meeting at which they are intended to be considered when there is a clear benefit to the Meeting in doing so.

8. Delegated authority of the MET SG

8.1. The MET SG may propose actions for further consideration by APANPIRG and record these in the MET SG Report as either draft Conclusions or draft Decisions of APANPIRG.

8.2. Additionally, APANPIRG has empowered MET SG to adopt proposals for action on technical matters (especially those concerning guidance to States in the implementation of ICAO SARPs and global and regional plans) that do not have additional economic, environmental, inter-regional or political effects, which should be considered by APANPIRG. The MET SG shall record these in its Meeting Report as Conclusions or Decisions of MET SG.

9. Work Plan of the MET SG

| | Detailed description of deliverable | Responsibility | Target date | Status of progress |
|----------|--|---|--|--------------------|
| a) to h) | Coordination meeting for the Chairs of MET SG, MET/R WG, MET/IE WG, MET/S WG, VOLCEX/SG | Chair MET SG and Secretary | Dec 2020 Mar 2021 Jun 2021 Sep 2021 | In progress |
| a) | Draft amendment proposal for APAC ANP to fulfil missing data in Tables MET | MET/S WG | Mar 2020 | In progress |
| a) | Draft amendment proposal for APAC ANP to clarify the MET-related implementation planning guidance in the ANRF and other parts of Volume III | MET/IE WG MET/S WG MET/R WG | Mar 2020 | In progress |
| b) c) | Analysis of APAC Regional SIGMET test | MET/S WG (Task 1 and 3) MET/IE WG (Task 3) | Mar 2020 | Completed |
| b) c) | Analysis of APAC Regional OPMET-availability monitoring exercise | MET/IE WG (Task 1) | Mar 2020 | Completed |
| b) c) | Analysis of APAC Regional OPMET-timeliness, -compliance and -regularity monitoring exercises | MET/IE WG (Task 2) | Mar 2020 | Completed |
| b) g) | Analysis of APAC Regional VAAC backup tests | MET/IE WG (Task 4) | Mar 2020 | Completed |
| b) g) | Analysis of APAC Regional IROG backup tests | MET/IE WG (Task 5) | Mar 2020 | Completed |
| b) | Revised draft regional guidance material on MET information needed to support the elements of the APAC Seamless ATMANS Plan | MET/R WG (Task 3) | Mar 2020 | In progress |
| c) | Analysis of APAC Regional SIGMET monitoring exercises | MET/S WG (Task 1) | Mar 2020 | Completed |

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| | Detailed description of deliverable | Responsibility | Target date | Status of progress |
|----------------|---|---|--------------------|---------------------------|
| b) c) g) | Final report on ICAO volcanic ash exercise APAC VOLCEX 18/01 (Papua New Guinea) | APAC VOLCEX/SG (Task 5) | TBD | Not started |
| b) c) g) | Final report on ICAO volcanic ash exercise APAC VOLCEX 18/02 (Indonesia/Sumatra) | APAC VOLCEX/SG (Task 6) | Completed | Completed |
| b) c) g) | Final report on ICAO volcanic ash exercise APAC VOLCEX 19/01 (Raoul Island, affecting Fiji's area of responsibility) | APAC VOLCEX/SG (Task 7) | Completed | Completed |
| b) c) g) | Final report on ICAO volcanic ash exercise APAC VOLCEX 20/01 (North-east Asia) | APAC VOLCEX/SG (Task 8) | Jun 2020 | Not started |
| b) c) g) | Final report on ICAO volcanic ash exercise APAC VOLCEX 19/02 (Philippines) | APAC VOLCEX/SG (Task 9) | Jun 2020 | Not Started |
| c) d) | Proposal to update the APANPIRG AN deficiencies database to add/remove deficiencies in the MET field | MET SG Chair, Secretariat | Aug 2019 | Completed |
| c) d) | Reporting form updates showing the status of implementation of corrective action for the resolution of AN Deficiencies in the MET field | MET/S WG (Task 2 and 6) | Mar 2020 | In progress |
| e) f) g) | First draft of input to the Regional SIGMET Guide to assist States in aligning cross-FIR-boundary SIGMET information | MET/R WG (Task 1) MET/S WG (Task 4) | Completed | Completed |
| f) | First draft of input to the Regional SIGMET Guide on the use of objective criteria supporting the issuance of SIGMET information for thunderstorm | MET/S WG (Task 4) | Completed | Completed |
| f) | Progress report on implementation and testing of IWXXM exchange | MET/IE WG (Task 5) | Jun 2020 | Completed |
| f) g) | ROBEX Handbook updates to support improved efficiency and effectiveness of the ROBEX scheme; develop new table indicating COMM links and status | MET/IE WG (Task 6) | Mar 2020 | Completed |
| g) | Information on ICAO provisions related to meteorological authority and quality assurance, cost recovery, competency, training and qualifications for meteorological service provision shared with States | MET SG Chair, Secretariat | Jun 2020 | In progress |
| g) | Analysis of MET information used in the Region specifically to support ATM operations | MET/R WG (Task 2) | Jun 2020 | In progress |
| g) | Plan for seminar on regional implementation of MET information to support ATM operations | MET/R WG (Task 5) | Jun 2020 | In progress |
| h) | Environmental Issues Identify issues in the field of aeronautical meteorology related to environmental issues | MET SG Chair, Secretariat | Jun 2020 | In progress |
| b) e) g) | IWXXM workshop Plan and conduct the IWXXM workshop | Secretariat, MET/IE Chair, MET SG Chair, Hong Kong China, Singapore | April/May 2020 | Completed |
| f) g) | SIGMET Guide update Update the Regional SIGMET Guide to align with Annex 3, Amendment 79 | MET/S WG (ad-hoc group) | Jun 2020 | Completed |

| | Detailed description of deliverable | Responsibility | Target date | Status of progress |
|----------------|---|------------------------|-------------|--------------------|
| e) f) g) | SIGMET coordination activities in APAC Region Coordinate on the next steps to promote integration and expansion of SIGMET coordination activities among States/Administrations. | MET/S WG (MET/R WG) | Jun 2020 | In progress |

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