

International Civil Aviation Organization

ICAO

WORKING PAPER (WP/23)**ICAO Asia and Pacific (APAC)
Twenty-Ninth Meeting of the Meteorology Sub-Group
(MET SG/29)**

Bangkok, Thailand, 18 - 22 August 2025

Agenda Item 8: Future work program**REVIEW THE TERMS OF REFERENCE AND WORK PLAN**

(Presented by the Secretariat)

SUMMARY

This paper presents a review of the Terms of Reference (ToR) and Work Plan of the ICAO Asia/Pacific Meteorology Subgroup (MET SG). It aims to align MET SG's objectives and deliverables with evolving regional and global aviation meteorological requirements. The review supports APANPIRG's goals of enhancing aviation safety, regularity, and efficiency. The meeting is invited to assess the current ToR and Work Plan, propose updates, and discuss relevant matters to ensure continued effectiveness in supporting international air navigation across the APAC Region.

1. INTRODUCTION

1.1 The Meteorology Subgroup (MET SG) was established by the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG) to guide the planning and implementation of aeronautical meteorological services in the Asia/Pacific (APAC) Region. As a specialized contributory body, MET SG plays a key role in ensuring the alignment of MET services with ICAO Standards and Recommended Practices (SARPs) and the APAC Regional Air Navigation Plan (ANP).

1.2 This paper invites the meeting to review the current Terms of Reference (ToR) and Work Plan of the MET SG, with a view to proposing updates that reflect evolving regional priorities and operational requirements. The aim is to ensure that MET SG continues to effectively support APANPIRG's objectives in enhancing aviation safety, regularity, and efficiency.

2. DISCUSSION

2.1 The MET SG's ToR define its mandate, including objectives, functions, structure, membership, meeting protocols, documentation standards, and delegated authority. Its core objectives are to ensure harmonization of MET services with global and regional plans, facilitate implementation of ASBU modules, and address MET-related deficiencies across the APAC Region.

2.2 The ToR and Work Plan were last updated during MET SG/28 and subsequently presented in the progress report to APANPIRG/35. A copy is provided in **Appendix A**. These updates aimed to reflect evolving operational requirements and regional priorities, including the integration of climate-related considerations and support for SWIM-based MET services.

2.3 The current Work Plan outlines deliverables aligned with the ToR, such as:

- Drafting amendments to the APAC ANP to address missing data and clarify implementation guidance;
- Developing and revising regional guidance materials to support the APAC Seamless ANS Plan;
- Promoting aviation exercises and supporting MET service improvements;
- Monitoring implementation of MET services and identifying deficiencies;
- Enhancing SIGMET coordination and supporting SWIM-based MET information services;
- Sharing initiatives on environmental impact reduction and climate change adaptation;
- Conducting seminars and improving regional guidance materials.

2.4 All tasks are actively in progress, with responsibilities distributed among MET SG, MET/R WG, MET/IE WG, and the Secretariat. The review seeks to ensure that the ToR and Work Plan remain responsive to technological advancements and emerging regional needs, thereby reinforcing MET SG's role in supporting safe, efficient, and sustainable international air navigation.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) Note the information presented in this paper;
- b) Review the MET SG ToR and Work Plan (Appendix A) and propose updates to reflect current regional and operational priorities; and
- c) Discuss any additional relevant matters to enhance the effectiveness of MET SG in supporting international air navigation in the APAC Region.

APPENDIX A

METEOROLOGY SUB-GROUP (MET SG) TERMS OF REFERENCE

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 ANS 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 ANS 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, exercises 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) Develop guidance materials and conduct seminars aimed at improving aeronautical meteorological services through the use of existing and/or new procedures, facilities and technologies;
- 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) Share aeronautical meteorological initiatives being undertaken to reduce the environmental impact of aviation operations.
- i) Share information on the impacts of climate change on aviation operations.

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.

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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.

METEOROLOGY SUB-GROUP (MET SG) WORK PLAN

ToR Ref*	Detailed description of deliverable	Responsibility	Target date	Status of progress
a)	Draft amendment proposal for APAC ANP to fulfil missing data in Tables MET	Secretariat	As required	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/R WG MET/IE WG with guidance from Secretariat	MET SG/29	In progress
b)	Revised draft regional guidance material on MET information needed to support the elements of the APAC Seamless ANS Plan	MET/R WG (Deliverable 2)	As required	In progress
b) c) g)	Promote aviation exercise outcomes of significance to MET SG, create or update as required guidance material for developing aviation exercises for meteorological events, provide expert support to exercise leaders as appropriate.	MET SG	As required	In progress
c) d)	Monitor the regional implementation of meteorological observations, forecasts, warnings, and advisories, to identify potential deficiencies in the MET field	MET SG Chair, Secretariat	Annually	In progress
c) d)	Investigate , and implement as appropriate, options to assist States in resolving AN deficiencies in the MET field		Annually	In progress
f)	Report on the Progress of implementation and testing of IWXXM exchange	MET/IE WG (Activity 7)	Annually	In progress
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	Annually	In progress
g)	Analysis of MET information used in the Region specifically to support ATM operations	MET/R WG (Deliverable 1)	MET SG/29	In progress
h) i)	Share aviation meteorological initiatives being undertaken to reduce the environmental impact of aviation operations and share information on the impacts of climate change on aviation operations	MET SG Chair, Secretariat	Annually	In 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/R WG (Deliverable 9)	MET SG/29	In progress
f)	Develop User Requirements for SWIM-based MET Information Services Supporting ATFM	MET/R WG (Deliverable 6)	MET SG/29	In progress
e)	Conduct seminars to improve knowledge and to assist States implementation of new MET service	MET SG MET/R WG MET/IE WG	Annually	In progress
	Develop or improve regional guidance material related to the implementation of aviation meteorological services, including input to the Regional SIGMET Guide	MET SG MET/R WG MET/IE WG	Annually	In progress

* Corresponding functions of the MET SG, as listed in the *Terms of Reference of the MET SG* (Ref: APANPIRG Procedural Handbook, Sixth Edition — 1 June 2020, A/L No 01)