



ICAO

*International Civil Aviation Organization*

**Twelfth Meeting of the Asia/Pacific Air Traffic Flow Management Steering Group (ATFM/SG/12)**

Video Teleconference, 13 – 16 September 2022

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## **Agenda Item 2: Review Outcomes of Related Meetings**

### **REVIEW OUTCOMES FROM MET/R WG/11**

(Presented by the Secretariat and Chair of MET/R WG)

#### **SUMMARY**

This paper presents outcomes from MET/R WG/11 relevant to the ATFM/SG, including outcomes related to the ICAO APAC MET/ATM Webinar 2022 and MET/ATM survey, updates to the MET/ATM regional guidance document, education on the space weather advisory service, and guidance on exchanging special air-reports.

## **1. INTRODUCTION**

1.1 The ICAO Asia and Pacific (APAC) Office hosted the Eleventh Meeting of the Meteorological Requirements Working Group (MET/R WG/11) online from 31 May to 3 June 2022 in conjunction with the ICAO APAC *Webinar on Meteorology/Air Traffic Management* (MET/ATM Webinar) on 30 May 2022.

1.2 MET/R WG/11 reviewed the progress of its work plan to facilitate the States' provision of MET information needed to meet current and future requirements of the ATM system and considered further actions aimed at facilitating the integration of MET information into ATM systems.

1.3 The MET/ATM Webinar allowed States and Organisations to share information, experiences and ideas on planning and implementing MET services to support ATM operations, focusing on recent innovations and integrating MET information into ATM systems.

1.4 All documentation from MET/R WG/11 and the MET/ATM Webinar is available at the following ICAO APAC Office website: <https://www.icao.int/APAC/Meetings/Pages/2022-MET-R-WG11.aspx>.

## **2. DISCUSSION**

### **MET/ATM Webinar**

2.1 The Webinar (30 May 2022) considered eleven presentations under the following three topics: 1) ICAO Provisions, 2) MET/ATM Collaboration within States, and 3) MET/ATM Collaboration between States. The ICAO presentations highlighted the development of global provisions for the MET information and services needed to support international civil aviation and the role of the MET/R WG in supporting the planning and implementation by the APAC States of the required MET information and services.

2.2 Presentations by the States, including Australia, China, Hong Kong China, Japan and Vietnam, highlighted the importance of close collaboration between the MET and ATM personnel concerned. The establishment and continuous improvement of effective collaborative decision-making processes for ATM and Air Traffic Flow Management (ATFM) depended on MET/ATM collaboration.

2.3 Furthermore, presentations by IATA and IFALPA from the operators' and air traffic controllers' perspectives highlighted the need for accuracy and timeliness of MET information and knowledge about the capabilities of the MET services. They reinforced the critical importance of close collaboration between the MET service providers and ATM stakeholders.

#### MET/ATM Survey

2.4 To help understand the current and future requirements for MET information and services to support ATM, particularly ATFM, and explore opportunities to enhance the integration of MET services in the ATM system, a survey of the APAC States was conducted from October to December 2021.

2.5 However, MET/R WG/11 considered that it was necessary to facilitate a coordinated approach to the development of MET services in the APAC Region and promote the survey results among other related Working Groups (of APANPIRG). Therefore, MET/R WG/11 tasked the designated ad hoc group to identify follow-up actions on the survey results and report back to the MET SG and ATM SG [Decision MET/R/11/03: *Further analysis of ICAO APAC Regional Survey on the provision of MET services to support ATM and ATFM and Follow-up Actions* refers].

#### MET/ATM Regional Guidance Document

2.6 MET/R WG/11 supported updates the designated ad hoc group proposed to the *Regional Guidance for Tailored Meteorological Information and Services to Support ATM Operations*. The proposals included new material on analysing the impact of tailored MET information on ATM decisions [Draft Decision MET/R WG/11/02: *Update the Regional Guidance for Tailored Meteorological Information and Services to Support ATM Operations* refers].

2.7 Subsequently, the Twenty-sixth Meeting of the Meteorology Sub-Group (MET SG/26), held online from 1 to 5 August 2022, reviewed and approved the proposed updates [Decision MET SG/26/02 – *Update the Regional Guidance for Tailored Meteorological Information and Services to Support ATM Operations* refers].

2.8 The updates approved by MET SG/26 included an updated implementation example on ATM-tailored MET information from Hong Kong, China, featuring post-operational analysis and continuous service improvement.

#### Space Weather Advisory Service

2.9 A presentation by Australia highlighted the importance (for ATM stakeholders) of understanding how space weather impacts the aviation system and how the (ICAO Annex 3) advisory information on space weather phenomena provided by the space weather centres (SWXCs) is used to mitigate the risks to aviation. Furthermore, since space weather events are most common and generally more intense around the peak of the eleven-year solar cycle ("solar maximum"), expected in 2025, the probability of SWXCs issuing advisory information on space weather phenomena is likely to increase.

2.10 Guidance on the space weather advisory service is available to States in the ICAO Doc 10100 – *Manual on Space Weather Information in Support of International Air Navigation*. In addition,

some States have prepared relevant educational information for users on space weather, such as brochures<sup>1</sup> published by the Australian Bureau of Meteorology.

2.11 ICAO plans to organise and conduct an APAC *Webinar on the Space Weather Advisory Information Services* in 2022. In addition, MET/R WG/11 proposed to promote and assist ATM stakeholders and Airspace Users with user education on the space weather advisory service, including seeking input from end users on the required content of a workshop or seminar and exercise (on space weather).

Guidance on exchanging special air-reports

2.12 MET/R WG/11 noted that ICAO, with the support of experts from the Hong Kong Observatory, conducted a *Webinar on Special Air-Reports needed by MET to Support Flight Safety* on 17 June 2021. The Webinar highlighted the importance (for flight safety) of the ICAO standards and recommended practices for exchanging special air-reports between airlines, air traffic services units and meteorological offices. The Webinar presentations are available on the ICAO APAC Office website<sup>2</sup>.

**3. ACTION BY THE MEETING**

3.1 The meeting is invited to:

- a) note the information contained in this paper.

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<sup>1</sup> <http://www.bom.gov.au/aviation/data/education/space-weather.pdf> and  
<http://www.bom.gov.au/aviation/data/education/space-wx-advisories.pdf>

<sup>2</sup> <https://www.icao.int/APAC/Meetings/Pages/2021-Special-air-reports-Webinar.aspx>