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THIRTIETH MEETING OF THE METEOROLOGY
SUB-GROUP (MET SG/30)

Bangkok, Thailand, 20 - 24 July 2026

Agenda Item 5: Planning and Monitoring**LATEST STATUS OF IWXXM**

(Presented by Hong Kong, China)

SUMMARY

This paper highlights the latest status of the ICAO Meteorological Information Exchange Model (IWXXM) and related outcomes of the 13th and 14th meeting of the ICAO Meteorological Panel (METP) Working Group of Meteorological Information Exchange (WG-MIE) being held in Sep 2025 and May 2026 respectively.

1. INTRODUCTION

1.1 The WMO Task Team on Aviation Data (TT-AvData) had published a new version of IWXXM in November 2025 – IWXXM 2025-2 – to meet the changes involved in Amendment 82 to ICAO Annex 3 and PANS-MET (Doc. 10157). A decision was made at the 13th meeting of ICAO Meteorological Panel Working Group on Meteorological Information Exchange (METP WG-MIE/13) regarding deprecation of older IWXXM versions and ceasing their use in operational exchange of meteorological information.

1.2 Subsequent to METP WG-MIE/13, ways to make IWXXM better fit the publish-subscribe and request-reply exchange patterns in SWIM were further discussed at WG-MIE/14.

2. DISCUSSIONIWXXM 2025-2

2.1 The following is a recap of the major changes introduced in IWXXM 2025-2 with respect to IWXXM 2023-1:

- First introduction of the Quantitative Volcanic Ash (QVA) Concentration Information package
- First introduction of the Volcano Observatory Notice for Aviation (VONA) package
- Changes to the METAR/SPECI, Volcanic Ash Advisory, and Space Weather Advisory packages in accordance with the changes of their respective TAC templates
- Changes to the METAR/SPECI package to allow the reporting of unlimited RVR, and temperature in tenths of a degree, in contrast to TAC

- Changes to the Meteorological Feature Package, and the WAFS Significant Weather Forecast package which has been based on it, to prepare for use by future packages to be developed
- Updates to documentation in IWXXM and all its packages to reflect the introduction of PANS-MET and the discontinuation of the WMO Technical Regulations (WMO-No. 49), Volume II, Meteorological Service for International Air Navigation

2.2 Details regarding IWXXM 2025-2, including the schemas, examples, UML model, and release notes, are available at <https://schemas.wmo.int/iwxxm/2025-2/>.

Versions of IWXXM for operational exchange

2.3 Normally, amended and new Annex 3 SARPs and PANS-MET materials will become effective and applicable within the same year after they were approved. This imposes a challenge to both producers and consumers requiring IT systems to encode meteorological reports as well as decode and further process them for consumption, and this has been amplified with the introduction of the more sophisticated and information rich IWXXM reports in which deployment of system enhancements are often lagging behind the applicable date of relevant Annex 3 and PANS-MET clauses. This is not only undesirable regarding compliance to the latest SARPs, the presence of IWXXM reports in multiple versions will also increase producers' and consumers' operational complexity and cost.

2.4 ICAO METP WG-MIE in its 13th meeting in 2025 had discussed the issues and arrived at the following decision:

Decision MIE/13-03: Managing IWXXM Version

That,

- a) following the official release of version 2025-2 in November 2025, only versions 2023-1 and later should be exchanged operationally, and
- b) future IWXXM versions should be managed as independent packages.

2.5 In the 14th meeting in 2026, WG-MIE further discussed the issue and reached a consensus that a delayed applicability date (e.g., 12 months) of the Annex 3 SARPs and PANS-MET materials would suffice, that each PANS-MET update should contain the relevant IWXXM version that is to be used upon applicability, and that communication should be made that older versions of the IWXXM schema should not be used. The following decisions were formulated:

Decision MIE/14-05: Support for IWXXM Versions

That, there should only be one global version of IWXXM exchanged operationally at a time.

Decision MIE/14-06: Publication of IWXXM Versions

That, the applicable IWXXM version should be published in the PANS-MET and include a delayed applicability date.

Decision MIE/14-07: ICAO Communications for IWXXM Releases

That, if a new version of IWXXM is released outside of a standard Annex 3 or PANS-MET amendment cycle, the ICAO Secretariat should be invited to issue a State Letter.

2.6 Table 1 shows the latest IWXXM compatibility table taking into account the latest decision made by WG-MIE.

Table 1: Compatibility table showing IWXXM versions, associated report packages, and relevant ICAO Annex 3 requirements

IWXXM Version	METAR/SPECI	TAF	SIGMET	AIRMET	TCA	VAA	SWA	WAFS SIGWX F/C	VONA	QVACI	Requirements
<u>1.1</u>	1.1.0	1.1.0	1.1.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Am76
<u>2.1</u>	2.1.1	2.1.1	2.1.1	2.1.1	2.1.1	2.1.1	N/A	N/A	N/A	N/A	Am77
<u>3.0</u>	3.0.0	3.0.0	3.0.0	3.0.0	3.0.0	3.0.0	3.0.0	N/A	N/A	N/A	Am78
<u>2021-2</u>	3.1.0	3.0.1	4.0.0	3.1.0	3.1.0	3.1.0	3.0.1	1.0.0	N/A	N/A	Am79 + Am80
<u>2023-1</u>	3.1.0	3.0.1	4.0.1	3.1.1	3.1.0	3.1.0	3.0.1	1.1.0	N/A	N/A	Am79 + Am80
<u>2025-2</u>	3.2.0	3.0.2	4.0.2	3.1.2	3.1.1	3.2.0	3.1.0	1.2.0	1.0.0	1.0.0	Am82 / PANS-MET

2.7 WG-MIE is developing a plan for communicating operational deprecation of older IWXXM versions, and approaches to globally coordinating the implementation of new IWXXM schema versions, with emphasis on lifecycle planning (including retirement of versions), stakeholder readiness, and alignment of regional deployment timelines.

2.8 Table 1 also reveals the fact that not all IWXXM packages will be updated in a new version. In response to feedback, WG-MIE is working with TT-AvData to find out if IWXXM packages could be managed and updated separately. If the new arrangement is considered effective it will be implemented in the future release of IWXXM.

Other relevant items discussed in WG-MIE/14

2.9 The meeting discussed the current state of standardising AMQP headers and message structure for distribution of IWXXM reports within a SWIM environment. The details are expected to be included in the *Guidance for MET-SWIM Implementation*.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- note the information in this paper;
- consider if any action is needed to remind States to ensure systems being developed or procured will work with the current accepted version and future versions of IWXXM; and
- discuss any relevant matter as appropriate.
