

International Civil Aviation Organization**INFORMATION PAPER**

ICAO

Eighteenth Meeting of the Meteorological Information Exchange Working Group (MET/IE WG/18)**Tenth Meeting of the Meteorological Services Working Group (MET/S WG/10)**

Web-conference, 27 to 31 July 2020

Agenda Item 3: Monitoring of meteorological information exchange**STATUS AND PLANS FOR IWXXM IN AUSTRALIA**

(Presented by Australia)

SUMMARY

This paper provides a brief update on the status and plans for the support of ICAO Meteorological Information Exchange Model (IWXXM) format information in Australia.

1. INTRODUCTION

1.1 Amendment 78 to Annex 3 states that the international exchange of GML IWXXM formatted METAR/SPECI, TAF, AIRMET, SIGMET, Volcanic Ash Advisory (VAA) and Tropical Cyclone Advisory (TCA) is now a recommended practice. Amendment 78 also defines that from November 2020, the exchange of GML IWXXM formats will become a standard practice. In addition, Space Weather Advisories in XML format became a recommended practice in November 2019 and will be a standard practice from November 2020.

2. DISCUSSION

2.1 As reported previously, to support the introduction of IWXXM, Australia needed to make a range of changes to its systems and processes. Based on the information in ICAO Guidelines for the Implementation of OPMET data exchange using IWXXM, the following changes were planned to support the introduction of IWXXM:

- Generation of the 7 IWXXM meteorological reports by the Bureau of Meteorology (BoM);
- Generation of Space Weather Advisories in IWXXM format by the BoM;
- Exchange of IWXXM reports from the Bureau of Meteorology to the National OPMET/ROBEX Centres operated by Airservices Australia;
- Compilation of IWXXM bulletins;
- Enabling File Transfer Body Part (FTBP) on the Air Traffic Services (ATS) Message Handling System (AMHS) connections to Singapore and Fiji RODBs; and
- Exchange IWXXM bulletins with connected ROBEX partners (RODB Singapore and Fiji initially, followed by other states upon connections being upgraded to AMHS with FTBP).

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2.2 The BoM is currently generating AIRMET, SIGMET, VAA & TCA reports in IWXXM v2.1 format from source. In the coming two months, the systems which generate these products will be upgraded to support IWXXM version 3. At this time, the following additional IWXXM v3 capabilities will be implemented:

- support for generating Space Weather Advisories from source;
- METAR/SPECI bulletins converted from Traditional Alpha-numeric Code (TAC); and
- TAF bulletins converted from TAC.

2.3 The intent was to generate the TAFs from source, however there have been delays in implementing IWXXM capability at defence aerodromes, so IWXXM bulletins will be generated by converting the TAF TAC bulletins. For domestic use, civil aerodromes TAF may also be available as individual IWXXM reports, generated from source.

2.4 The BoM has also extended the IWXXM TAF schema to support the inclusion of four temperature fields (T+3, T+6, T+9 and T+12), four QNH fields (T+3, T+6, T+9 and T+12), support for INTER and a TAF3 boolean field which indicates whether the TAF is routinely generated at 3-hourly or 6-hourly frequency.

2.5 The implementation of IWXXM support at RODB Brisbane has been split into two phases. Phase 1 (by November 2020) will see Airservices' Meteorological Information Switch (MIS) upgraded to support receiving IWXXM bulletins from the Bureau and the dissemination of these bulletins with international OPMET partners via AMHS/FTBP connections with Singapore and Nadi.

2.6 The second phase will involve a major upgrade of the RODB to fully support IWXXM, including storage, retrieval, statistics and requests/reply. Phase 2 may also include translation functions (if required).

2.7 In addition to AMHS, Australia is planning to make IWXXM reports available to users via an Advanced Message Queuing Protocol (AMQP) service. We are also planning to make the IWXXM information available via a web service. The web service may not however be available on initial implementation of IWXXM.

2.8 Australia is planning workshops with its meteorological users to discuss what SWIM-style services would provide the greatest benefit to its users. Based on this information, plans will be developed for the implementation of further services.

3. ACTION BY THE MEETING

3.1 Note the information contained in this paper.
