



ICAO

International Civil Aviation Organization**INFORMATION PAPER****Twenty-fourth Meeting of the Meteorology Sub-group (MET SG/24) of the Asia and Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG)**

Web-conference, 16 – 20 November 2020

Agenda Item 5: Research, development and other initiatives**STATUS OF IWXXM IMPLEMENTATION 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 in Australia.

1. INTRODUCTION

1.1 Amendment 79 to Annex 3 – *Meteorological Service for International Air Navigation* (applicable 5 November 2020) requires States to disseminate METAR/SPECI, Aerodrome Forecasts (TAF), AIRMET, SIGMET, Volcanic Ash Advisory (VAA), Tropical Cyclone Advisory (TCA) and Space Weather Advisories (SWXA) in IWXXM GML form.

2. DISCUSSION

2.1 To support the introduction of IWXXM and exchange of information in IWXXM form, the Australian Bureau of Meteorology (Bureau) as the Meteorological Service Provider and Airservices Australia (Airservices) as the National OPMET Centre (NOC), Regional OPMET Centre (ROC) and Regional OPMET Databank (RODB), acquired new technological capability and appropriately configured their systems.

2.2 At the time of writing, Bureau systems have been configured to generate METAR/SPECI, TAF, AIRMET, SIGMET, VAA & SWXA in IWXXM v3 format. Bureau systems also produce TCA in IWXXM format however this is currently in IWXXM v2.1 format and further work is required to complete the upgrade to IWXXM v3.

2.3 The Bureau generates the majority of IWXXM bulletins from the source production system, with the exceptions of METAR/SPECI and TAF bulletins, which are translated from the traditional alphanumeric code (TAC i.e. text) bulletins.

2.4 The implementation of IWXXM capability at RODB Brisbane has been split into two (2) phases.

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2.5 Phase one (1) is complete and involved an upgrade of Airservices' Meteorological Information Switch (MIS) to support receipt of IWXXM bulletins from the Bureau, and dissemination of these bulletins to international OPMET partners, via Air Traffic Services (ATS) Message Handling System (AMHS)/ File Transfer Body Part (FTBP) connections with Singapore, Nadi and Johannesburg. Airservices' systems have been enabled with FTBP and testing with ROBEX partners is currently being conducted.

2.6 Phase two (2), which is planned for 2022, will involve a major upgrade of the RODB to fully support IWXXM - including storage, retrieval, statistics and requests/reply.

2.7 Both the Bureau and Airservices are actively testing the exchange of IWXXM bulletins and finalising preparations to enable dissemination on operational circuits on 5 November 2020. Australia has advised Regional OPMET Bulletin Exchange Scheme (ROBEX) users of the introduction of new IWXXM services via a ROBEX Meteorological Notification (METNO) bulletin.

2.8 In early 2021, Australia intends to implement an extension to 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.

2.9 Australia has commenced a project to make IWXXM reports available to users via an Advanced Message Queuing Protocol (AMQP) service.

2.10 Australia is planning workshops with aviation meteorological service users to understand what SWIM-style services would provide them with the greatest benefit. User requirements and feedback will drive future development and implementation of additional services.

3. ACTION BY THE MEETING

3.1 Note the information contained in this paper.
