



International Civil Aviation Organization

**NINETEENTH MEETING OF THE METEOROLOGY SUB-GROUP  
(MET SG/19) OF APANPIRG**

Bangkok, Thailand, 3 – 6 August 2015

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**Agenda Item 6: Research, development and implementation issues in the MET field**

6.4) OPMET 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 in Australia.

**1. INTRODUCTION**

1.1 Effective with Amendment 76 to ICAO Annex 3 – *Meteorological Service for International Air Navigation* (applicability date November 2013), exchange of METAR, SPECI, TAF and SIGMET may be done in digital form - using an extensible exchange model rather than Traditional Alphanumeric Codes (TAC) - under a bilateral agreement between States in a position to do so. Amendment 77 will likely make this a recommendation and it is anticipated that this will become a requirement at Amendment 78 to Annex 3.

1.2 The World Meteorological Organization (WMO) formed a Task Team on Aviation XML (TT-AvXML) to identify the meteorological information that WMO must represent in the aviation XML standard in response to requirements from ICAO. The result was the development of IWXXM.

1.3 Details of IWXXM are included in the *Manual on the Digital Exchange of Aeronautical Meteorological Information* (ICAO Doc 10003).

**2. DISCUSSION**

2.1 Airservices' National Aeronautical Information Processing System (NAIPS) holds:

- OPMET received and distributed using AFTN/AMHS as TAC messages (the Australian Bureau of Meteorology is unlikely to produce IWXXM variants of the baseline OPMET products in the near term); and

- Weather chart products, GRIB data delivered by our Meteorological Information System (MIS).

This database is utilised for RODB functions and consequently must comply with the WMO/ICAO standards and recommended practices that are specified in Annex 3.

2.2 The changes required to comply with the draft Amendment 77 include the ability to construct IWXXM variants of received TAC OPMET covered by the baseline version (METAR/SPECI, TAF and SIGMET) that are to be forwarded to connecting RODB (Singapore and Fiji) and translate IWXXM messages from those two RODBs for storage in the MET database.

2.3 This exchange cannot be supported by AFTN and in order to facilitate the above, Airservices has commissioned an AMHS connection with Fiji and will be commissioning one with Singapore during February 2016.

2.4 NAIPS is an internally supported system whereas the MIS and AFTN/AMHS systems are provided by two of the leading vendors of AIM database and exchange products (with proven capability in implementing IWXXM).

2.5 Aligning with Amendment 77 can be achieved by modifying NAIPS or enhancing MIS or the AFTN/AMHS system. Funding has been recently approved in order to support IWXXM by the November 2016 and the preferred option will be determined during the planning phase of that project.

2.6 The ability to perform two-way conversion between TAC and IWXXM that is described above will accommodate the varying capabilities of ANSP's and MET service providers in the region.

### **3. ACTION BY THE MEETING**

3.1 The meeting is invited to note the information in this paper.

3.2 The meeting is also invited to discuss the implications for a RODB if it is not IWXXM compliant by the required date.

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