



*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 IMPLEMENTING IWXXM IN HONG KONG, CHINA**

(Presented by Hong Kong, China)

**SUMMARY**

This paper provides a brief account on the status and plans for implementing IWXXM in Hong Kong, China.

**1. INTRODUCTION**

1.1 WMO had formally approved, at the 17<sup>th</sup> Session of the Congress, the representation of aviation information in extensible mark-up language (i.e. IWXXM) developed by a Task Team on Aviation XML (TT-AvXML).

1.2 With the envisaged standard requirement to exchange OPMET in IWXXM format in Amendment 78 to ICAO Annex 3, if approved, in November 2018, the ROBEX WG had reviewed in its 13<sup>th</sup> meeting plans and progresses towards implementation of OPMET exchange in IWXXM format. The meeting acknowledged a need to adopt a coordinated approach to the implementation of IWXXM within the ROBEX scheme and the need to have an inter-regional capacity building workshop to support the implementation of OPMET exchange in IWXXM. The meeting was aware of EUR DMG's development of a Concept of Operation for the Transition of OPMET Data Exchange using IWXXM, and the importance for OPMET data in TAC format to strictly adhere to Annex 3 requirements if TAC to IWXXM automatic conversion is applied.

**2. DISCUSSION**

2.1 Hong Kong, China participates in the development of IWXXM with the generation of the XML schema and creation of schematron rules for validation of IWXXM formatted OPMET messages and has developed a Java-binding to facilitate the preparation of the messages. Concept proofing tests to generate and validate IWXXM formatted OPMET messages had been successfully conducted. A test to transmit an IWXXM message as a File Transfer Body Part (FTBP) via AMHS with FAA had also been accomplished earlier on.

2.2 From the test results, it was noticed that while the generation of IWXXM formatted OPMET messages is fast, the validation process which include accessing the XML schema online and

execution of the schematron rules could be much slower. Furthermore, the significantly larger size of an IWXXM formatted OPMET message as compared with its TAC counterpart may take a longer time to transmit. It is therefore essential to carry out real-time test to study the performance of the generation-validation-transmission-decoding processes.

2.3 Hong Kong, China is working with Singapore and Thailand to develop and conduct tests on the above processes via the Extended AMHS service established. It is anticipated that the result can give an insight into the implementation of IWXXM in APAC, and provide feedback to the TT-AvXML on enhancement and further development of IWXXM. Considering that there should be a coordinated approach to the implementation of IWXXM within the ROBEX scheme, the meeting might like to consider

- (a) the arrangement of a regional workshop to raise technical capacity and competency of States in APAC region; and
- (b) the development of a Plan for the Transition of OPMET Data Exchange using IWXXM to coordinate development and testing effort.

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

3.1 The meeting is invited to :

- a) note the information contained in this paper;
- b) discuss the proposal in para. 2.3 above; and
- c) discuss any relevant matters as appropriate.

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