



International Civil Aviation Organization

**FOURTEENTH MEETING OF THE ASIA/PACIFIC
METEOROLOGICAL INFORMATION EXCHANGE WORKING GROUP
(MET/IE WG/14)**

Bangkok, Thailand, 7 – 9 March 2016

Agenda Item 4: Planning and implementation of digital exchange of meteorological information

**TEST PLAN FOR EXCHANGING METEOROLOGICAL INFORMATION
THROUGH AMHS IN HONG KONG, CHINA**

(Presented by Hong Kong, China)

SUMMARY

This paper presents a brief account on the plans for exchanging meteorological information via AMHS in Hong Kong, China.

1. INTRODUCTION

1.1 ICAO MET/P Working Group on Meteorological Information Exchange (WG-MIE) has prepared a draft document *Guidelines for the Implementation of OPMET Data Exchange using IWXXM* (hereafter the “Guidelines”). While the regional implementation details have yet been prepared, Hong Kong, China was developing a test plan for exchanging digital meteorological information via AMHS infrastructure connecting with the neighboring States.

2. DISCUSSION

2.1 The Guidelines has identified several functions required in exchanging OPMET-XML, such as Producer, Aggregator, Databank and Data Switch. In Hong Kong, China, the Hong Kong Observatory (HKO) will take up the role of a Producer, while Civil Aviation Department (CAD) will take up the roles of an Aggregator to compile XML bulletins and as a Data Switch to exchange them with neighboring States. MET information sent by Manila and Taipei, together with the HKG related MET information in XML form prepared by HKO, would be compiled into a bulletin by CAD.

2.2 To develop the capabilities with respect to Producers defined in the Guidelines, HKO has developed a client to connect to the AMHS system of CAD via the Simple Object Access Protocol (SOAP) interface to exchange live messages on operational trial since January 2016. Functional tests including tests on the timeliness and handling of message rejection have been conducted. While some IWXXM messages were not allowed in free text format in AMHS message content due to presence of special characters, the exchange of IWXXM messages between CAD and HKO through AMHS Extended Service was successful.

2.3 Hong Kong, China is working with Singapore to develop and conduct tests on the exchange of IWXXM messages with AMHS Extended Service. While there may be initial test through the development platform of AMHS established recently in Hong Kong, China making use of direct connection via VPN, the ultimate goal is to exchanging IWXXM messages on the operational AMHS connection via Bangkok, Thailand to Singapore. Conduction of other tests such as the use of compression, TAC to IWXXM conversion would follow as necessary.

2.4 It is noticed that the implementation of AMHS Extended Service is rather limited in ASIA PAC so far. Since IWXXM messages can only be exchanged via AMHS Extended Service, the latter should be available for the whole path between senders and recipients. It will be necessary to ensure availability of AMHS Extended Service at critical centres before IWXXM messages can be exchanged within the ASIA PAC region and with other regions.

2.5 While the draft Guidelines has provided a broad framework for migration from exchanging TAC to exchanging IWXXM, the applicability in APAC should be considered. The result and experience gained of the above test mentioned in paragraph 2.3 would be shared with the working group when available.

3. ACTION REQUIRED BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this papers; and
- b) discuss any relevant matters as appropriate.
