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

STATUS AND PLANS FOR IMPLEMENTATION OF DIGITAL EXCHANGE OF OPMET USING XML

(Presented by the Republic of Korea)

SUMMARY

This paper provides the status and plans for implementation of digital exchange of OPMET using XML

1. INTRODUCTION

1.1 The aeronautical information data based on paper documentation and telex-based text messages can not satisfy anymore the requirements of Digital environment, including state-of-the-art airborne equipment and Satellite-based Air Navigation Services.

1.2 To deal with such limitations, the International Civil Aviation Organization (ICAO) has determined the introduction of AIM to establish the standard model for exchange of electronic aeronautical information and produce, manage and distribute six types of aeronautical information in a standardized electronic format, aviation weather information part of AIM convert the base into a professional weather data exchange model in XML.

1.3 WXXM 1.0 was introduced in 2007, representing METAR, SPECI, TAF, SIGMET and other ICAO information as specified in International Civil Aviation Organization (ICAO) Annex III.

1.4 IWXXM implements the Conceptual Model as an XML schema. Therefore, it can be used to send weather information to others in the form of XML encoded data, enabling systems to exchange weather information.

2 STATUS

2.1 The Republic of Korea has established a standard database based integrated information system for the provision of electronic information by 2015 to implement aviation weather information (WX) part of AIM.

2.2 The Aviation Meteorological Office (AMO) has developed a weather information exchange system to establish a step-by-step implementation plan to build a data processing system conforming to international standards and the standard electronic format of IWXXM1.1 version in 2015.

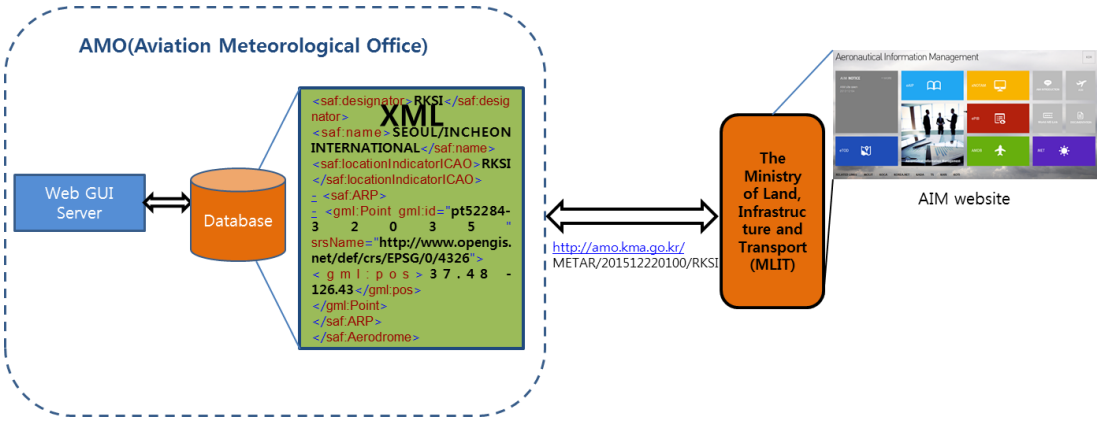
2.3 The AMO has established a system converting METAR, SPECI, TAF, and SIGMET to XML, allowing the Ministry of Land, Infrastructure and Transport (MOLIT) to take the data from the system in real-time through the Internet service. The test of this process was completed at the end of 2015.

2.4 This test is in conjunction with the Aviation Meteorological Office and MOLIT. Once the SWIM network is established, the test will also be carried out between nations.

3. PLAN

3.1 Services

As the early stage, the test with the MOLIT was conducted through the Internet network. The MOLIT plans to integrate with AIM areas (eAIP, eTOD, PIB, x-NOTAM, AMDB) to open a domestic website in the second half of 2016.



3.2 On-going activities to be carried out step by step

i) QC to XML format(website development for QC);

ii) Conversion to XML format (Volcanic ash advisory, Tropical cyclone advisory, AIRMET) by 2018; and

iii) Test for SWIM network between countries

The Aviation Meteorological Office (AMO) and the MOLIT which is responsible for operating air navigation system are expected to get ready to distribute xml format to support the future ATM system through the ongoing discussion and to establish compatible integrated operating environment to cope with the complexity of the operational information exchange.

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