AFI PLANNING AND IMPLEMENTATION REGIONAL GROUP
TWENTY FIRST MEETING (APIRG/21)
Nairobi, Kenya, 9 to 11 October 2017

Agenda Item 3:   **Performance Framework for Regional Air Navigation Planning and Implementation**

   3.4   Status of ASBU Implementation

ITEM

STATUS OF EXTENSIBLE MARK-UP LANGUAGE (XML)/GEOGRAPHIC MARK-UP LANGUAGE (GML) TRANSITION

(Presented by South Africa)

SUMMARY
This paper presents the status of Extensible Mark-up Language (XML)/Geographic Mark-up Language (GML) transition within South Africa in support of the Aeronautical Meteorological Information Exchange Model (IWXXM) and to encourage Regional compliance based on Amendment 77 to ICAO Annex 3.

REFERENCE(S):
- Amendment 77 of Annex 3 of Chicago Convention
- Report of the MET Divisional Meeting 2014 (Recommendation 2/3 c)
- APIRG 20 Report (Conclusion 20/44)
- ICAO Doc 9750

Related ICAO Strategic Objective(s):
A - Safety and
B- Air Navigation Capacity and Efficiency

1.   INTRODUCTION

1.1   The ICAO Global Air Traffic Management Operational Concept (ATMOC Doc 9854) describes the way the Air Traffic Management (ATM) system will deliver services and benefits to airspace users by 2025-2030. The ICAO Global Air Navigation Plan (GANP) (Doc 9750) and its Aviation System Block Upgrades (ABSU) methodology presents the strategy for ATMOC in line with the recommendations provided by ICAO's Twelfth Air Navigation Conference in 2012 and endorsed by the 38th and 39th sessions of the ICAO Assembly held in 2013 and 2016 respectively.

1.2   Amendment 77 of Annex 3 to the Convention on International Civil Aviation recommends the dissemination in ICAO Meteorological Information Exchange Model (IWXXM) format of regular data (METAR, Aerodrome Forecast (TAF)) and non-regular data (SPECI, AIRMET, SIGMET, volcanic ash advisory (VAA) and tropical cyclone advisory (TCA), in addition to the current traditional alphanumeric code (TAC) version of these data.

1.3   In the AFI Region, APIRG/20 adopted, through Conclusion 20/44, a transition plan (AFI Transition Plan) for handling OPMET data in digital format. According to the plan, from 2016 to 2019, AFI States should start progressive implementation of XML/GML based exchange format for OPMET information.

2.   DISCUSSION

2.1   APIRG/20 Conclusion 20/44 adopted the global transition plan for Table-Driven Data Representation (XML/GML) for METAR/SPECI, TAF and SIGMET. Following Conclusion 19/44 of APIRG/19, Dakar- and Pretoria Regional OPMET Data Banks (RODB) were requested to develop capabilities for handling OPMET information in digital format and to assist associated Bulletin Compiling Centres (BCCs) in the implementation of OPMET data in digital format.

2.2   The bilateral exchange of IWXXM-based information was introduced in Amendment 76 to ICAO Annex 3 from November 2013, enabling States to exchange their OPMET data in XML and GML in addition to existing Traditional Alphanumeric Code (TAC) data format. This marked the beginning of migration towards a digital environment in support of the System Wide Information Management (SWIM) concept.

2.2.1   South Africa has implemented IWXXM 2.0 XML/GML schema, for digital OPMET exchange and have decommissioned AFTN and implemented an Aeronautical Message Handling System (AMHS) between the South African Weather Service (SAWS) and the Air Traffic and Navigation Services Company (ATNS). It is still a requirement to exchange OPMET data on a bilateral basis with any State in the AFI Region which has developed capability for handling meteorological information in digital format in accordance with APIRG/20 Conclusion 20/44.

3.   ACTION BY THE MEETING

3.1   The meeting is invited to:

a) Note the progress reported in this paper, particularly the capabilities developed by South Africa to exchange OPMET data in XML/GML format within the framework of SWIM; and

b) Urge States that have developed the required digital capabilities to enter into Bi-Lateral Agreements in accordance with Amendment 76 to ICAO Annex 3 and APIRG/20 Conclusion 20/44.

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