



(Lima, Peru, from 18 to 22 September 2017)

Agenda Item 4: Improvements of MET services in accordance with the new operational requirements in support of ATM

IWXXM status update for METAR/TAF/SIGMET

(Presented by the United States)

SUMMARY

This paper is a general status update for where the US is with respect to IWXXM implementation.

1. INTRODUCTION

1.1 The National Weather Service (NWS) operates one of six Operational Meteorological (OPMET) Data Banks around the world to aid in the collection and dissemination of aviation weather data. The International Civil Aviation Organization (ICAO), under the sponsorship of the World Meteorological Organization (WMO), has worked to create the ICAO Weather Information Exchange Model (IWXXM) data format. ICAO wants member States to implement the IWXXM data standard by November, 2019. The United States has begun initial translation of several Traditional Alphanumeric Code (TAC) products into the IWXXM data standard and will be transmitting METAR/SPECI, TAF, SIGMET, AIRMET, and volcanic ash advisory products contained in the IWXXM version 1.1 and/or 2.0 standard by March 31, 2018. Follow-on work will add the additional IWXXM-formatted products (e.g., tropical cyclone advisories).

2. DISCUSSION

2.1 In July 2016, the NWS chartered a cross-agency team to implement IWXXM for METAR/SPECI, TAF, and SIGMET. The NWS' Next Generation Information Technology Web Services (NGITWS) program is currently creating IWXXM 1.1 METAR/SPECI, TAF, and SIGMET bulletins, and IWXXM 2 volcanic ash advisory statements, and disseminating them to the FAA to support the FAA NextGen Weather program. The NGITWS team has completed development on IWXXM 2 versions of SIGMET and AIRMET bulletins and is currently working towards deployment by the end of FY17. The team also is exploring the feasibility and resources required to generate the METAR IWXXM report at the point of observation (e.g., Automated Surface Observing System, ASOS). The plan for ASOS to natively disseminate IWXXM METAR from each location is due by April 1, 2019.

2.2 TAF workplan. The team has explored the methodology and resources required to generate the IWXXM TAF at the point of development; namely, using the NWS Advanced Weather Interactive Processing System (AWIPS). The NWS Office of Central Processing is working to develop AWIPS software to generate and disseminate IWXXM TAF version 2.0, with software integration planned for late Fiscal Year (FY) 2017.

2.3 SIGMET workplan. The NWS is accomplishing IWXXM 1.1 SIGMET translation from TAC and dissemination from a high-availability centralized dissemination center rather than from each of the three U.S. Meteorological Watch Offices (MWO) where SIGMETs are generated. The NWS NGITWS program is currently creating IWXXM 1.1 SIGMET products and disseminating them to the FAA to support the FAA NextGen Weather program.

3. **NEXT STEPS**

3.1 The NWS project team approach to METAR/SPECI, TAF, and SIGMET IWXXM implementation ensured an aligned approach that covered necessary aspects of implementation, and NWS expects to use a similar team charter approach to implement additional IWXXM products. The NWS Office of Science and Technology Integration will continue to work with the international community to further refine IWXXM data standards. Preliminary discussions have been held between the two U.S. Volcanic Ash Advisory Centers on implementation of IWXXM Volcanic Ash Advisory Statements, and the three U.S. MWOs are working toward a Common Aviation Production Platform that could enable IWXXM SIGMET generation at each of the MWOs.

3.2 States wishing to retrieve U.S. IWXXM data operationally should contact Alfred Moosakhanian at the FAA (alfred.moosakhanian@faa.gov).

4. **RECOMMENDATION**

4.1 The group is invited to note the information above.