

Report of the ICAO Meteorological Panel

Presented by Eric Avila

SUMMARY

This paper provides a high-level update on the ICAO Meteorological Panel and its associated working groups.

1. INTRODUCTION

- 1.1. This report provides the status of the International Civil Aviation Organization (ICAO) Meteorological Panel (METP). METP membership consists of twenty-six ICAO Member States and seven international organizations. The METP working groups are preparing amendments for ICAO Annex 3 – Meteorological Service for International Air Navigation and the Procedures for Air Navigation Services – Meteorology (PANS-MET).
- 1.2. The METP is comprised of the following four work groups:
 - Work Group on Meteorological (MET) Requirements and Development (WG-MRAD)
 - Work Group on MET Information Exchange (WG-MIE)
 - Work Group on MET Operations (WG-MOG)
 - Work Group on MET Cost Recovery Governance and Guidance (WG-MCRGG)

2. DISCUSSION**2.1. WG-MRAD**

In 2014, a need was identified to provide a phenomenon-based globally consistent forecast. Several areas of the globe currently have little or no meteorological services. Deficiencies in Significant Meteorological Information (SIGMET) forecasting across flight information regions (FIR) globally have been identified.

WG-MRAD in coordination with the World Meteorological Organization (WMO), is developing provisions to support the implementation of phenomenon-based regional advisory system for select en-route hazardous meteorological conditions. The working group is developing requirements for the Hazardous Weather Information Service (HWIS). HWIS will provide consistent hazardous meteorological hazards across FIR's.

ICAO Annex 3 will require updating to enable the implementation of HWIS.

Additionally, the WG-MRAD is developing new requirements for future aerodrome observation services. The group is working to improve de-icing and long-haul requirements as they relate to aerodrome observations. In addition, improving forecasting capabilities of low-level and high-altitude ice crystals is ongoing. The requirements for wind reporting in Automatic Terminal Information Service is also under review.

2.2. WG-MIE

WG-MIE continues to work on developing the requirements for ICAO Meteorological Exchange Model (IWXXM). IWXXM will serve as the global standard for reporting text weather products. Currently, text weather products are sent using Traditional Alphanumeric Code (TAC). TAC is designed to be read by humans, where IWXXM is designed to be read by computers. IWXXM provides text using extensible markup language (XML). The XML code is designed to be read by computers and provide users with the desired text product. The documentation and requirements for IWXXM will continue to be developed by the work group. TAC is planned to be removed as a standard in ICAO Annex 3.

The WG-MIE is also working to develop the standards for exchanging meteorological services using System Wide Information Management (SWIM). SWIM is a global initiative that provides the exchange of weather information across FIR's.

2.3. WG-MOG

The ICAO and WMO have requested that Volcanic Ash Advisory Centers (VAAC) provide detailed information on volcanic ash clouds to inform users how volcanic ash impacts aviation. Recent improvements in remote sensing and improved science have allowed VAAC forecasters to provide improved detailed volcanic ash forecasts.

Quantitative Volcanic Ash (QVA) will provide high-resolution volcanic ash forecasts every three hours. Additionally, QVA forecasts will provide ash concentration values in 5,000' layers. This new improved resolution will support using airspace above volcanic ash clouds (when applicable), which will improve efficiency and reduce air traffic delays. WG-MOG is working with the VAAC's to define QVA requirements along with updating the appropriate ICAO documents.

The WG-MOG is also working on developing requirements and performance indicators for regional space weather centers.

2.4. WG-MCRGG

The WG-MCRGG is finalizing a proposed cost recovery mechanism for space weather. The work group is analysing and addressing data governance issues.

3. CONCLUSION

The work groups will continue to finalize amendments to ICAO Annex 3 and PANS-MET ahead of the 6th METP meeting in March 2025.

4. RECOMMENDATIONS

It is recommended that this report be accepted as information paper.

--END--