



INTERNATIONAL CIVIL AVIATION ORGANIZATION

Fourth Meeting of the APIRG Infrastructure and Information Management Sub-Group (IIM/SG4)

(Virtual, 31 August - 03 September 2021)

Agenda Item 3: Review of the Conclusions/Decisions of the APIRG/23 Meeting applicable to IIM/SG

WP3.3A – CONCLUSIONS/DECISIONS OF THE APIRG/23RD MEETING IN THE AREA OF AERONAUTICAL METEOROLOGY (MET)

(Presented by the Secretariat)

SUMMARY
This paper presents the outcome of the APIRG/23 & RASG AFI/6 meetings in the area of Aeronautical Meteorology (MET) Action by the meeting is in paragraph 3
REFERENCE(S): <ul style="list-style-type: none">▪ Report of the APIRG 23 & RASG AFI 6 meetings
Related ICAO Strategic Objective (s): <ul style="list-style-type: none">▪ A: Aviation Safety and B: Capacity & Efficiency Related ASBU KPIs & B0 Modules: all KPIs applicable to the MET domain

1. INTRODUCTION

- 1.1. The AFI Planning and Implementation Group’s Twenty-third Meeting (APIRG/23) was held in association with the AFI Regional Aviation Safety Sixth Meeting RASG – AFI/6), virtually from 23 November to 2 December 2020.
- 1.2. The meeting formulated numerous Conclusions and Decisions, some of which were common for a number of air navigation areas and others are specific for areas of AIM, CNS and MET. The current paper will discuss those Conclusions and Decisions dealing with MET.

2. DISCUSSIONS

2.1. The APIRG/23 Meeting formulated six conclusions in MET area. The status of the implementation of those conclusions is represented graphically in Figure 1.

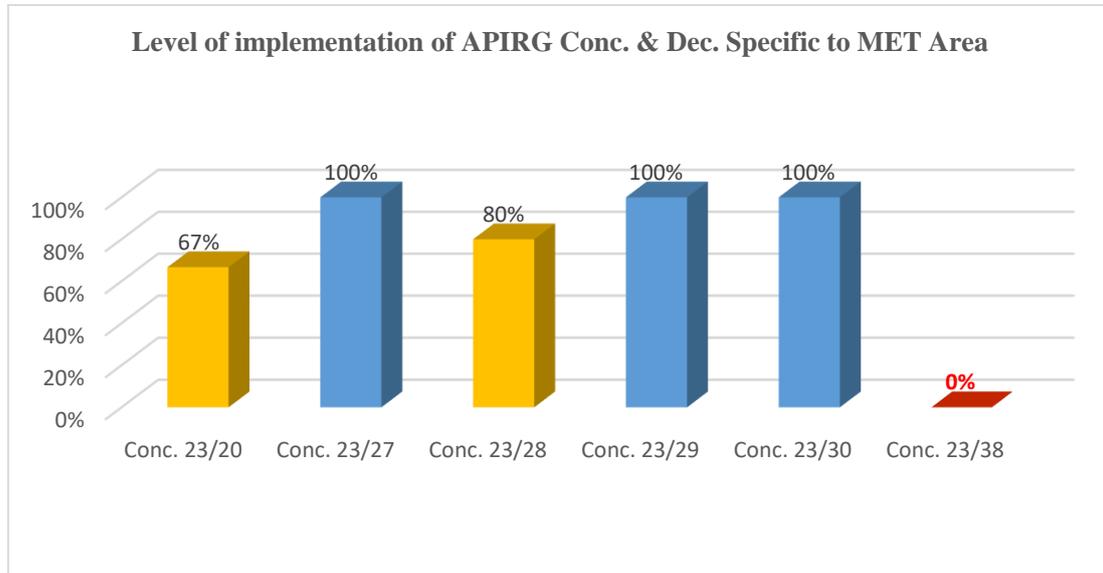


Figure 1 Status of the implementation of APIRG/23 Conclusions and Decisions in MET

2.2. The following three conclusions have been completely implemented:

2.2.1. Conclusion 23/27 – Adoption of the MET Project 1 and MET Project 2 Terms of Reference and their deliverables for 2021 – 2022;

2.2.2. Conclusion 23/29 – Establishment of a Regional Space Weather Project; and

2.2.3. Conclusion 23/30 – Development of Action Plans for the implementation of Space Weather requirements;

2.3. The APIRG23 meeting also agreed on Conclusion 23/20 that is related to the AFI ICAO Meteorological Information Exchange Model (IWXXM) Implementation Guideline and development of capabilities of handling data in digital format:

APIRG/23 Conclusion 23/20: AFI IWXXM Implementation Guideline and development of capabilities of handling OPMET data in digital format

That;

In the framework of the ICAO Annex 3 provision related to the IWXXM, and to improve the exchange of OPMET data in digital format,

- a) **The Secretariat, finalize the AFI IWXXM Implementation Guideline document as contained in Appendix XX and make it available to States not later than 15 January 2021;**
- b) **States be invited to expedite the development of IWXXM capabilities for exchange of OPMET data in digital format in accordance with ICAO Annex 3;**
- c) **States that have developed capabilities for exchange of OPMET data in digital format are encouraged to enter into bilateral/multilateral agreements for testing of their systems; and**
- d) **COM Project 2, consider the provision of the AFI AMHS Manual and integrate an appendix focusing on the AMHS Profile for OPMET IWXXM in line with the EUR AMHS Manual.**

2.3.1. The States were notified of the availability of the Guideline on the ICAO website through State Letter ES AN 8/6 – 05530 dated 12 January 2021. In addition, APIRG23/20 encouraged States that have developed capabilities for exchange of OPMET data in digital format to enter into bilateral/multilateral agreements for testing of their systems.

2.3.2. Based on the coordination actions by the Secretariat with the RODBs Dakar and Pretoria, and according to the Report presented by IIM/SG MET Project 2 at the 19 April 2021 Meeting of APIRG IIM_SG MET Project 1, it has been noted with satisfaction that the transition towards the IWXXM format in the AFI Region has been undertaken. However, some issues are still to be examined in order to ensure a harmonized implementation of the IWXXM Model in the Region, which include the followings :

- a) Unavailability of formal Intra-regional plans on AMHS infrastructure/links and IWXXM data exchange between the RODBs and between the ROCs and RODBs.
- b) Unavailability of established Intra-regional implementation plans on IWXXM data exchange by the States to their ROC /IROG /BCC.
- c) A bilateral agreement between IROGs, including bi-lateral or regional translation agreement are to be established in some cases.

2.3.3. The meeting is invited to recall the discussions during the AFI IWXXM Workshop, which was conducted from 15 to 16 September 2020. It was discussed, among other topics, the prospects for Traditional Alphanumeric Code (TAC) to IWXXM translation agreements in the AFI Region. The meeting is invited to review the proposed sample request form (**Appendix A**) for TAC to IWXXM translation services allowing AFI States to have some OPMET data translated from TAC to IWXXM form by their associated Data Translation Centre..

2.4. APIRG Conclusion 23/28 deals with the Development of Volcanic Ash Contingency Plans and Conduct of Volcanic Ash exercises in the AFI Region. The said conclusion is formatted as follows :

APIRG/23 Conclusion 23/28 Development of Volcanic Ash Contingency Plans and conduct of Volcanic Ash exercises in the AFI Region

That,

In view of the need for the provision of information to airlines and en-route aircraft before and during a volcanic eruption:

- a) **the State Volcano Observatories in Table MET I-1 provide their updated contact details to the Secretariat by 29 January 2021 for sharing with the States/Organizations;**
- b) **States that have not developed volcanic ash contingency plans and conducted Volcanic Ash exercises should do so, using the guidance in the AFI Volcanic Ash Contingency Plan as contained in Appendix H of the AFI Regional ATM Contingency Plan by 30 June 2021; and**
- c) **ICAO assist in planning and conducting a coordinated regional Volcanic Ash exercise by 31 December 2021.**

2.4.1. Actions b) and c) have been completed. The Secretariat through State Letter T10/21-0002 dated 19 January 2021, collected the Contact details of AFI State Volcano Observatories (SVOs). The meeting is invited to note that there are some SVOs that are yet to provide updated contact details to ICAO. Recalling on the recent eruption of the Nyiragongo Volcano in the Democratic Republic of Congo (DRC), the SVOs play the important role notifying their corresponding ACC/FIC, MWO and VAAC of significant pre-eruption volcanic activity, a volcanic eruption and/or volcanic ash in the atmosphere. The SVOs Contact details are also crucial for the upcoming inaugural AFI Volcanic Ash Exercise expected to be conducted before the end of the year. The status quo of the updated details is provided in **Appendix B** of this Paper.

2.4.2.Regarding action c) the following was achieved:

- a) The Secretariat assisted States with a workshop on the conduct of a volcanic ash exercise in April 2021. Around 227 participants from 28 AFI States, International Organizations (ASECNA, CANSO, IATA, WMO), AFI VAAC Toulouse and ICAO ESAF, EUR/NAT and WACAF Regional Offices participated in this workshop.
- b) The Secretariat assisted with the development of guidelines (Appendices C and D to this WP) related to the volcanic ash Exercises including the drafting of Volcanic Ash Exercise Operational Instructions (AFI VOLCEX OPINS) and the Volcanic Ash Exercise Directive that have been presented to APIRG IIM/SG MET Project 2.
- c) In line with this Conclusion 23/28 of APIRG/23, the AFI VACP (**Appendix E** to this Paper) has been presented by the Secretariat AFI Regional Workshop on the Conduct of Volcanic Ash Exercise held virtually in April 2021, and reviewed by the Virtual Workshop on the AFI Regional Contingency Plan Review and Implementation Coordination in June 2021.
- d) The coordination for the preparation of the AFI Volcanic Ash Exercise under the responsibility of the APIRG IIM/SG MET Project 2 and technical lead by Cape Verde is still ongoing under the close coordination of the ICAO ESAF and WACAF Offices.

2.5. The Conclusion 23/38 is yet to be completed. The said conclusion is formulated as follows:

APIRG 23 Decision 23/38 RHWAC/MWOs collaboration experimentation and development of the Regional Hazardous Weather Advisory Center (RHWAC)

That, in order to harmonize ongoing initiatives and activities of the METP related to the Regional Hazardous Weather Advisory Center (RHWAC) Work Stream:

- a) **the experimentation of RHWAC coordination between the ASECNA zone and other AFI States be considered for further deliberations under the MET Project 1 of the IIM/SG; and**
- b) **the activities related to the establishment of RHWAC(s) for the provision of harmonized information on a global scale of dangerous en-route weather conditions for aviation be aligned to the developments within the METP WG-MISD.**

2.5.1.Discussions are ongoing between the APIRG IIM/SG MET Project 1 and ASECNA to coordinate the consideration and the implementation of the said conclusion.

3. ACTIONS BY THE MEETING

3.1. The meeting is invited to:

- a) Take note of the information contained in this paper;
- b) Consider the following conclusions:

3.2. Draft Decision 4/xx - AFI Volcanic Ash Contingency Plan

That, in order to provide States /Organizations with standardized guidelines and procedures for the provision of information to airlines and en-route aircraft before and during a volcanic eruption;

The meeting endorse the draft AFI ATM Volcanic Ash Contingency Plan, Edition 2021 (AFI VACP, Ed 2021) for submission to APIRG at its 24th Meeting for approval.

3.3. Draft Conclusion 4/xx - Provision of Volcanic Ash Information in the AFI Region

That, to ensure the provision of relevant information on volcanic ash to airlines and en-route aircraft,

- a) The IIM/SG MET Project 2, in coordination with the Secretariat, finalize the AFI Volcanic Ash Exercise Operational Instructions (AFI VOLCEX OPINS) and the Volcanic Ash Exercise Directives for approval by of APIRG/24; and
- b) The Secretariat, to coordinate with Democratic Republic of Congo, Eritrea to update their Volcano Observatories Contact details as per the guidance provided in ICAO Doc 9766 Handbook of IAWV by 30 November 2021.

3.4. Draft Decision 4/xx - Sample request form for TAC to IWXXM translation services

That, in order allow AFI States to have OPMET data translated from TAC to IWXXM form by their associated Data Translation Centre;

The sample request form as per Appendix A for TAC to IWXXM translation services request is endorsed by the meeting.

3.5. Draft Conclusion 4/xx: Traditional Alphanumeric Code to IWXXM translation agreements

That, in the framework of the dissemination of OPMET data in the IWXXM format in the AFI Region:

- a) States data producer having their TAC data converted into IWXXM by another State on their behalf, should ensure that a bi-lateral or regional agreement be defined for such circumstances.
- b) RODBs/IROGs Dakar and Pretoria put in place a formal regional plan to support the implementation of the IWXXM in the Region and formalize a bilateral agreement to conduct the IWXXM operationalization tests between the two IROGs and their corresponding ROC.
- c) The Secretariat to record the regional plans for follow-up purpose, maintains the list of agreements and provides it publicly on the ICAO website.

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