

INTERNATIONAL CIVIL AVIATION ORGANIZATION

First Meeting of the AFI Volcanic Ash Steering Group (AFI VOLCEX/SG1)

(Virtual, 5 July 2022)

Agenda Item 2 - Debrief and Review of Volcanic Ash Exercise VOLCEX 21/01

WP-2.1 AFI VOLCEX 21/01 Summary Report

(Presented by the Secretariat)

| <b>SUMMARY</b>  |
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| <p>This paper presents a summary report of the AFI volcanic ash exercise (AFI VOLCEX 21/01) for review by the meeting and identification of issues to be addressed by the Group.</p> <p>Action by the meeting in <b>paragraph 3</b></p> |
| <p><b>REFERENCE(S):</b></p> <ul style="list-style-type: none"> <li>• AFI VOLCEX 21/01 Report</li> <li>• Doc 9766 Handbook on the IAVW</li> <li>• ToR of AFI VOLCEX SG</li> </ul>  |
| <p><b>Related ICAO Strategic Objective(s):</b></p> <ul style="list-style-type: none"> <li>• <b>A – Safety, B – Air Navigation Capacity and Efficiency</b></li> </ul>  |

1. INTRODUCTION

- 1.1. The overall objective of AFI VOLCEX 21/01 was to maintain enhanced safety, regularity and efficiency of aviation in the event of a volcanic eruption by demonstrating the provision/exchange of volcanic ash information in support of flexible airspace management, improved situational awareness and collaborative decision making, and dynamically optimized flight trajectory planning.
- 1.2. The ICAO AFI volcanic ash exercise conducted in November 2021, named AFI VOLCEX 21/01, simulated the eruption of Fogo volcano (volcano number: 384010, position Lat: 14° 56' N; Long: 24° 20' W) located on Fogo Island, Cabo Verde affecting Sal and Dakar Flight Information Regions (FIRs).
- 1.3. The AFI VOLCEX was aimed to demonstrate the practice of applicable and regional procedures related to volcanic activity and volcanic ash affecting two FIRs, including:
  - a) Provision/exchange of alerts (e.g., VONA) and AIS and MET information (e.g., VAA/VAG, SIGMET, NOTAM, special air-report);
  - b) Collaboration between operational units (e.g., VO, MO, MWO, VAAC, ATM, AIS and AO) and other relevant authorities and regulators.

- c) Enhanced situational awareness and CDM (e.g., via a tele-conference/web conference, website, or other media); and
- d) Responses by operational units (e.g., air traffic flow management measures, safety risk assessments).

1.4. The exercise was led by Cape Verde in its capacity of the Exercise Leader State.

1.5. The participants of the AFI VOLCEX 21/01 comprised representatives from Cape Verde, Senegal, DRC, Kenya, South Africa, Airlines (IATA, Emirates, Senegal Airline), RODBs Dakar and Pretoria, VACC Toulouse and ICAO ESAF and WACAF Offices. The detail on the participants is provided in the AFI VOLCEX SG/1 Report at the Appendix 1 to this paper.

1.6. The scenario, schedule, exercise messages and special instructions are provided in the volcanic ash exercise directive; a copy of which is provided in the AFI VOLCEX 21/01 Report.

1.7. The exercise was entirely prepared and conducted online, through a dozen of webinars and meetings and the details of the outcomes of the Exercises is provided in the Exercise report

## **2. DISCUSSIONS**

2.1. The following highlights were noted during the exercise:

- a) Participating Agencies in most cases demonstrated correct issuance of required information in response to volcanic ash information.
- b) Strong support in the exercise from participants and observers.
- c) The coordination for the SIGMET related to the volcanic ash was successful

2.2. The following issues were noted during the exercise:

- a) Some confusion/discussion on the issuance of SIGMET VA in response to VAA sent by VAAC Toulouse at the beginning of the exercise.
- b) COM links /Networks are not tested
- c) Insufficient preparation of some participants
- d) Local Contingency Committee not activated
- e) Preparedness issues experienced at the beginning of the exercise regarding the handling/issuance of SIGMETs and NOTAM information
- f) Insufficient involvement at the high level
- g) Lack of agreements between stakeholders
- h) Contact details of some Volcano Observatory States missing

2.3. The Table 1 recapitulate the main issues encountered during the AFI VOLCEX 21/01 and proposals of remedial actions.

*Table 1 AFI VOLCEX 21/01 Issues/Remedial Actions*

| <b>Issues / Remarks</b>  | <b>Remedial action reference</b> | <b>Action text</b>  | <b>Responsibility</b>  | <b>Deadline</b>                               |
|--|----------------------------------|---|--|---|
| COM links /Networks are not tested   | Volcex 01-A1                     | Include in the next edition of the exercise (AFI VOLCEX 21/02), the check of the COM links/Networks   | Exercise Leader  | When scheduling the next Exercise             |
| Insufficient preparation of some participants  | Volcex 01-A2                     | Involve all stakeholders at the preparation of the event  | Exercise Leader  | From the beginning to the end of the Exercise |
| local Contingency Committee not activated  | Volcex 01-A3                     | Activate Local Contingency Committee during the Exercise  | Participating States (under the coordination of the Exercise Leader  | During the Exercise                           |
| Preparedness issues experienced at the beginning of the exercise regarding the handling of SIGMETs and NOTAM information | Volcex 01-A4                     | Ensure the preparedness /readiness of the participating experts for timely preparing and issuing SIGMETs and NOTAM information  | Exercise Leader  | Early enough before the day of the exercise   |
| Insufficient involvement at the high level   | Volcex 01-A5                     | Ensure that the participation of the stakeholders to the exercise is requested and decided at the high level of the States  | Secretariat  | By the next edition of the AFI VOLCEX         |
| Lack of agreements between stakeholders  | Volcex 01-A6                     | Neighbouring States that may face issues related to volcanic ash should establish agreements when relevant regarding the provision of information on the volcanic ashes | FIC of Dakar and the FIC of Cape Verde<br><br>Other concerned States | By next edition of the AFI VOLCEX             |
| Contact details of some Volcano Observatory States sill missing  | Volcex 01-A7                     | Request Volcano Observatory States that have not yet provided/updated the Contact details of their Focal Points to do so  | Secretariat  | By 31 March 2022                              |

### **3. ACTIONS BY THE MEETING**

#### **3.1** The meeting is invited to:

- a) Discuss the information contained in this paper; and
- b) Propose and/or consider the remedial actions proposed in Table 1 to address the issues identified in the VOLCEX 21/01.

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