

INTERNATIONAL CIVIL AVIATION ORGANIZATION

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Working draft of the

AFI VOLCANIC ASH EXERCISE OPERATIONAL INSTRUCTIONS

(AFI VOLCEX OPINS)

a mis en forme : Français (Sénégal)

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Prepared by the ICAO ESAF and WACAF Regional Offices - February June 20216

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PART I – General rules on volcanic ash exercises process

1. Overview

1.1. The Africa–Indian Ocean (AFI) Volcanic Ash Exercises Operating Instructions (AFI VOLCEX OPINS) presented herein have been prepared by the Eastern and Southern African (ESAF) and Western and Central African (WACAF) Offices to support the effective conduct of volcanic ash exercises within the AFI Region.

~~1.1.~~ The purpose of these instructions is to provide clear and relevant guidance for the coordination, execution, and reporting of volcanic ash events. ~~The working draft of the Africa–Indian Ocean (AFI) Volcanic Ash Exercises Operating Instructions (AFI VOLCEX OPINS) contained herein have been prepared by the Eastern and Southern African (ESAF) and Western and Central African (WACAF) Offices, to facilitate the conducting of regular volcanic ash exercises in the AFI Region of ICAO.~~

1.2. The first working draft version of the AFI VOLCEX OPINS was initiated ESAF/WACAF Offices and consolidated by APIRG HMSG MET Project 2, based on the EUR/NAT VOLCEX OPINS developed in 2011 and using the documents referenced in the paragraph 8.

~~1.3.1.2. Participating agencies are responsible for providing air traffic services, aeronautical information service, meteorological and geological data as well as volcanic ash dispersion forecasts and aircraft operation.~~

2. Exercises

2.1. Volcanic ash exercises are conducted biennially in the AFI Region to simulate and evaluate volcanic activity alerting, AIS and MET message routing, volcanic ash dispersion forecasting, air traffic control, air traffic flow and capacity management, as well as aircraft operator response.

~~2.1.~~ These exercises are designed to test the effectiveness of volcanic activity alerting, aeronautical information service (AIS) and meteorological (MET) message routing, volcanic ash information dissemination, air traffic control procedures, air traffic flow and capacity management, aircraft operator response, and collaborative decision-making (CDM) among all relevant stakeholders, in accordance with regional and global procedures. ~~Volcanic ash exercises are held bi-annually in the AFI Region, and exercise volcanic activity alerting, AIS and MET message routing, volcanic ash dispersion forecasts, air traffic control, air traffic flow and capacity management, and aircraft operator response.~~

2.2. ~~Volcanic ash exercises are conducted bi-annually in the AFI Region, and are designed to test volcanic activity alerting, aeronautical information service (AIS) and meteorological (MET) message routing, volcanic ash information, air traffic control procedures, air traffic flow and capacity management and aircraft operator response and the collaborative decision-making (CDM) between the various actors in accordance with regional and global procedures.~~

2.3. The exercises adhere to the following naming convention: “~~Exercise~~–VOLCEX{~~No-
nn/YYYY~~}/{~~NN~~”, where “No-” are invariable characters, “nn”, represent the sequence number of exercise equal to the number of Exercise since the commencement, {“YYYY”} relates ~~represents~~ to the year of the exercise “No-nn” is conducted in the Region. and {NN} relates the sequence number of the exercise. For example, Exercise VOLCEX No-02/2023 means the exercise number 2 of the Region, conducted in 2023; VOLCEX No-03 is the exercise number 3 of the Region conducted in 2025.

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2.4. Guidance for preparing volcanic ash exercises activities is provided in Appendix A.

~~20/01 is the first exercise of 2020, whilst Exercise VOLCEX20/02 is the second exercise of 2020.~~

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3. Aims

3.1. The aim of volcanic ash exercises in the AFI Region are to practice and develop inter-agency response to volcanic activity, in order to maintain regularity, efficiency and aviation safety in the event of a volcanic eruption.

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4. Objectives

4.1. The exercises are designed to:

- Practice the conduct of volcanic activity response in accordance with the regional reference documents;
- Verify existing information, AIS and MET message routing on AFTN addresses, relevant e-mail addresses, telephone and fax number, and internet addresses (URLs);
- Maintain appropriate information and message routing between all involved agencies and organizations;
- Provide volcanic activity response training for key personnel involved;
- Verify and develop existing procedures; and
- Provide, when appropriate, recommendations for amendment of the reference documents, in accordance with the lessons learned and conclusions contained in the Final Exercise Report.

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5. Concepts

~~5.1.~~ The ~~annual or~~ bi-annual volcanic ash exercises involve ~~the participation~~ participation from different geographical ~~stakeholders~~ areas of the AFI Region.

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5.1. Each exercise involves a simulated eruption of a ~~potential or active~~ volcano in the AFI Region.

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~~5.2. The AFI volcano observatories States are listed in the Appendix A to this document. With In accordance with reference to~~ the provisions of ICAO-AFI eANP Volume I, Volcanic Ash Advisory Centre (VAAC) **Toulouse** has been designated as AFI VAAC to prepare volcanic ash advisory information for the Africa-Indian Ocean Region.

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5.3. VAAC Toulouse is supported by the AFI selected volcano observatories States as provided in AFI eANP, Vol I Table MET I-1.

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~~5.2. Simulated ash clouds or clouds from an assigned volcano may cross national and/or international boundaries, depending on the objectives of the exercise.~~

~~5.3-5.4.~~ Each exercise may have different objectives ~~that a, which the concise~~ scenario ~~will shall~~ be designed to address. For example, any or all of the activities listed below may be tested depending on the scope of the exercise:

- AFTN, e-mail addresses, message routing and voice communications;
- Alerting and volcanic ash dispersion forecasts and advice;
- ATS response;
- ATC and aircraft operator response;

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- e) ATM response;
- f) AIS response; ~~and/or~~
- g) MET response; ~~and/or~~
- h) Other relevant stakeholders.

6. Expectations

- 6.1. ~~All~~ Participating agencies in the exercises are expected to adhere to the Operating Instructions ~~PINS~~ contained herein.

7. Language

- 7.1. Participants in teleconference meetings are expected to use both English and French languages.
- 7.2. The exercises, along with all related meetings and documentation, will be conducted in both English and French.
- 7.3. The exercise itself will be conducted exclusively in English.
- 7.1. ~~The use of English and French languages is expected among participants during teleconference meetings. The exercises, and any associated meetings and documentation, will be in both English and French languages. Interpretation services will be provided by the Secretariat.~~

8. Reference material

- ICAO Annex 3 – Meteorological Service for International Air Navigation
- ICAO Annex 11 – Air Traffic Services
- ICAO Annex 15 – Aeronautical Information Services
- ICAO Doc 10157 – Procedures for Air Navigation Services - Meteorology
- ICAO Doc 4444-ATM/501 – Procedures for Air Navigation Services
- ICAO Doc 9691-AN/954 – Manual on Volcanic Ash, Radioactive Material and Toxic Chemical Clouds
- ICAO Doc 9766-AN/968 – Handbook on the International Airways Volcano Watch
- AFI – ~~Volcanic Ash~~ ATM Contingency Plan
- ~~EUR/NAT Volcanic Exercise Operating Instructions~~

PART II – Volcanic ash response: Operational conduct processes and strategy

1. Introduction

- 1.1. Volcanic Ash Exercises Exercise (VOLCEX) are ~~exercise projects~~ supported by Air Traffic Control Centres, Meteorological Watch Offices, AIS NOTAM Offices, Volcanic Ash Advisory centres, Aircraft Operators, Regulators, RSC/RCC, etc. ~~of the, in the AFI Region/ of ICAO.~~
- 1.2. The volcanic ash response is based on structured operational processes and a strategy framework. ~~Participating agencies are expected to adhere to the OPINS contained herein. All costs of travel, meetings, communications and exercise conduct are carried by each individual party.~~

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2. Volcanic Ash Exercises Steering Group

2.1. The AFI Volcanic Ash Exercise Steering Group (AFI VOLCEX/SG), is established by APIRG to manage volcanic ash exercises to enhance response by service providers and airspace users in the AFI Region through regular exercises, ensuring continuous validation and improvement of regional contingency plans and procedures.

~~The management of the volcanic ash Exercises is of the responsibility of the AFI Volcanic Ash Exercise Steering Group (AFI VOLCEX/SG) established by the APIRG IMSG MET Project 2, with the objective of improving the response to volcanic eruptions and volcanic ash clouds by the relevant service providers and airspace users in the AFI Region through organizing regular volcanic ash exercises, in order to validate and continually improve the regional volcanic ash contingency plans and procedures.~~

2.2. The main tasks of the AFI VOLCEX/SG are detailed in the Terms of Reference of the AFI Volcanic Ash Exercise Steering Group. This includes, but is not limited to:

2.2.1. meets annually, and:

- a) Coordinating with all participants to develop and maintain an annual or biennial schedule of volcanic ash exercises and their corresponding scenarios;
- b) Continuously reviewing regional volcanic ash contingency plans and procedures;
- c) Recommending improvements based on lessons learned from exercises and real events;
- d) Organizing awareness events to educate stakeholders on the hazardous effects of volcanic ash on aviation and the established contingency measures;
- a) ~~Nominating Candidate Exercise Leaders for each exercise to the AASPG IIM Subgroup coordinating with all participants an annual or a two-year schedule of volcanic ash exercises and their scenarios;~~
- a) ~~continuous review of regional volcanic ash contingency plans and procedures;~~
- a) ~~proposing improvements based on the lessons learned;~~
- a) ~~and organizing volcanic ash awareness events concerning the hazardous effects of volcanic ash on aviation and the established contingency measures.~~

2.6. An example of the annual volcanic ash exercise activity schedule in the AFI Region is presented at Appendix B.

2.7. Regular updates on the activities of the AFI VOLCEX/SG are provided to the APIRG IMSG MET Project 2, amongst others, by the Secretary of the AFI VOLCEX/SG.

2.8.c) The AFI VOLCEX/SG determines the appropriate Exercise Leader for each exercise based on the expected volcanic ash scenario. The Exercise Leader is typically a member of the AFI VOLCEX/SG.

3. Directing Staff

3.1. The Directing Staff comprises subject matter experts from each technical area involved in the exercises, including Meteorological Watch Offices, Volcanic Ash Advisory Centres, NOTAM Offices, Air Traffic Services (ATS), and others.

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3.2. The Directing Staff are responsible for negotiating and designing exercise scenarios, conducting the exercise, debriefing participants, and preparing the Initial Exercise Report.

3.3. A list of contacts for agencies participating as Directing Staff can be compiled following the guidelines outlined in Appendix B.

~~A group of experts representing each of the specialist areas of the exercises, such as Meteorological watch offices, Volcanic ash advisory centres, NOTAM offices, etc.~~

~~The Directing Staff negotiate and design an exercise scenario, supervise the conduct of the exercise, debrief the exercise and write the Initial Exercise Report.~~

~~The list of contacts for agencies supervising the exercises as Directing Staff can be established using the Guideline presented at Annex C.~~

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4. Exercise Leader(s)

4.1. The technical preparation and execution of the exercise shall be led by an Exercise Leader, who is supported by an Assistant Exercise Leader.

4.2. The Exercise Leader must be an operational professional from an ATM Service Provider, with a minimum of seven (7) years of experience in air traffic management.

4.3. The Assistant Exercise Leader may be an operational professional from either an ATM or MET Service Provider, possessing at least seven (7) years of experience in air traffic management or the provision of meteorological services to aviation.

4.4. Exercise Leaders are members of the Directing Staff and, as such, have the authority to lead that entity.

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~~3.1. Having been designated by the AFI VOLCEX/SG, the Exercise Leader takes care of administrative matters relating to the Exercise VOLCEX, in coordination with the Secretary of the AFI VOLCEX/SG, such as the production of the Exercise Directive and Final Exercise Report.~~

~~3.2. The Exercise Leader is also the supervisor of the Directing Staff.~~

~~3.3.4.5. The Exercise Leaders is are responsible for:~~

- Coordinate the negotiation of exercise scenario;
- Coordinate the definition of exercises objectives;
- Develop exercise directives;
- Coordinated the development of exercise messages;
- Publishing the exercise directives
- ~~Conducting the volcanic/volcanic ash exercise (with GO/NO GO Decision) in coordination with directing staff~~
- ~~Making the GO/NO decision for the volcanic ash exercise (see 10.1 for more Reporting to the debriefing meetings for volcanic ash exercises in the AFI Region~~
- ~~(usually combined with the MET Project II meeting)~~

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~~• Publishing the exercise directive~~

~~• Supervising the volcanic ash exercise~~ Coordinate the preparation and the release of exercise reports.

~~•~~

~~• Reporting results of volcanic ash exercises including lessons learned, as well as recommended improvements to the regional volcanic ash ATM contingency plan and global ICAO provisions, to the appropriate Project(s) in APIRG~~

~~• Conducting the volcanic ash exercise in coordination with directing staff~~

~~• Making the GO/NO decision for the volcanic ash exercise (see 10.1 for more details)~~

4. Directing Staff

~~4.1. A group of experts representing each of the specialist areas of the exercises, such as Meteorological watch offices, Volcanic ash advisory centres, NOTAM offices, etc.~~

~~4.1. The Directing Staff negotiate and design an exercise scenario, supervise the conduct of the exercise, debrief the exercise and write the Initial Exercise Report.~~

~~4.1. The list of contacts for agencies supervising the exercises as Directing Staff can be established using the Guideline presented at Annex C.~~

5. Exercise planning

5.1. The exercise is initiated with a Planning Meeting held at least three months in advance, providing participating agencies with the opportunity to discuss and agree upon the exercise objectives, define the impact area, and, if necessary, develop volcanic and meteorological activity messages aligned with those objectives.

5.2. Guiding principles for conducting the Planning Meetings are outlined in Appendix C.

4.0. A Planning Meeting is held at least 3 months prior to an exercise, allowing participating agencies to negotiate the exercise objectives, determine the impact area, and, if necessary, design the volcanic and meteorological activity messages to serve the objectives.

4.0. Guideline principles concerning the Planning Meetings are presented at Appendix D.

6. Exercise directive

6.1. An Exercise Directive shall be issued prior to the exercise, clearly outlining the exercise scenario, participating agencies, and any special instructions.

6.2. Immediately following the Planning Meeting, the Exercise Leader will commence drafting the Exercise Directive, incorporating input from the Directing Staff as appropriate.

6.3. The Exercise Directive will comprehensively specify the exercise scenario, date(s) and time(s), participating agencies, Exercise Leader, aims and objectives, communication protocols, Directing Staff, and any special instructions.

6.4. The Exercise Directive must be finalized by the Exercise Leader no later than two weeks before the exercise date.

6.5. In coordination with the Secretariat and the Chairpersons of the AFI VOLCEX/SG, the Exercise

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Leader shall ensure the Exercise Directive is distributed to all Directing Staff and published on the ICAO ESAF and WACAF Offices' websites.

~~6.1. The template for the Exercise Directive is provided in Appendix D. An exercise directive should be published prior to the exercise which clearly describes the exercise scenario, participating agencies and any special instructions.~~

~~6.2. Immediately following the Planning Meeting, the Exercise Leader will start to prepare an Exercise Directive, with input from Directing Staff as appropriate.~~

~~6.3. The Exercise Directive will clearly state the exercise scenario, date(s) and time(s), participating agencies and Exercise Leader, aims and objectives, communications, Directing Staff, and any special instructions.~~

~~6.4. The Exercise Directive is to be finalized by the Exercise Leader at least two weeks prior to the exercise.~~

~~6.5. The Exercise Leader, in coordination with the Secretary of the AFI VOLCEX/SG, is to ensure that the Exercise Directive is circulated to all Directive Staff and posted on the ICAO ESAF and WACAF Offices' website.~~

~~6.6. The Exercise Directive template is presented at Appendix E.~~

7. Exercise ~~conduct~~ **Execution**

~~7.1. The exercise shall be initiated based on the GO/NO GO decision made by the Exercise Leader.~~

~~7.2. Guidance on the GO/NO GO decision is provided in paragraph 8 below.~~

~~7.3. The exercise will be conducted in accordance with the approved activities outlined in the Exercise Directive.~~

~~7.4. Participants (or "players") are expected to issue exercise scenario messages, such as VONA, volcanic ash advisories, SIGMET, NOTAM or ASHTAM, ARS, etc., following the sample messages provided in the Exercise Directive.~~

~~7.5. If, for any reason, it appears that the exercise may have an operational impact, the Exercise Leader shall cancel the exercise.~~

~~7.1. All communications related to the exercise, whether text-based, graphic-based, or voice communication—shall adhere to the guidelines presented in Appendix E. The exercise is conducted in accordance with the Exercise Directive.~~

~~7.2. Participants (or "players") are expected to issue exercise scenario messages such as volcanic ash advisories, SIGMET and NOTAM or ASHTAM in accordance with the examples provided in the Exercise Directive.~~

~~7.3. There must be no operational impact since the exercises are simulations.~~

~~7.4.7.6. All communications pertaining to the exercise (text-based, graphics-based and/or voice communication) must adopt the guidelines presented in Appendix F.~~

8. ~~8.~~ **GO/NO GO Decision**

~~The following guidance aligns with the principles outlined in ICAO Doc 9766, which emphasize the importance of safety, coordination, and clear communication in volcanic ash exercises.~~

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8.1. Exercise Leader Authority: The Exercise Leader holds the responsibility and authority to make the GO/NO GO decision for the exercise based on readiness and operational considerations.

8.2. Pre-Exercise Assessment:

- Confirm that all participating agencies and stakeholders have acknowledged and are prepared for the exercise.
- Verify that the Exercise Directive, including the scenario, objectives, participating agencies, communication protocols, and special instructions, has been finalized and disseminated at least two weeks prior to the exercise.
- Ensure that all technical and operational resources required for the exercise are in place and functional.

8.3. Operational Impact Consideration:

- Evaluate the current operational environment to ensure that conducting the exercise will not adversely affect real-world aviation safety or operations.
- If there is any indication that the exercise could interfere with actual air traffic management or meteorological services, the Exercise Leader should decide to postpone or cancel the exercise.

8.4. Communication and Coordination:

- Confirm that all communication channels and protocols are tested and ready.
- Ensure that all participants understand their roles and responsibilities during the exercise.

8.5. Pre-Exercise Teleconference

- A pre-exercise teleconference via Webex should be scheduled the day before the volcanic ash exercise to enable participants to familiarize themselves with the exercise platform/format and if they have last-minute concerns or clarifications regarding the exercise.

8.6. Final Decision Timing:

- The GO/NO GO decision should be made sufficiently in advance to allow for necessary notifications and adjustments.
- Following a careful assessment, the Exercise Leader should issue a **Go Decision** to all participants and observers one day before the exercise. The notification should preferably be sent at **00:00 UTC** on the day preceding the exercise to allow sufficient time for final preparations.

8.7. Cancellation Protocol:

- If the exercise is cancelled, promptly inform all participants and stakeholders with clear reasons and guidance on rescheduling or follow-up actions.

9. Initial exercise report

9.1. Following the exercise, participating agencies—primarily the Directing Staff—are required to prepare an Initial Exercise Report based on their observations and experiences.

9.2. The Initial Exercise Report should highlight key lessons learned, recommendations, and conclusions. To facilitate this, participating agencies may need to conduct prompt internal

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a mis en forme : Paragraphe de liste, Interligne : Multiple 1,15 li, Hiérarchisation + Niveau : 2 + Style de numérotation : 1, 2, 3, ... + Commencer à : 1 + Alignement : Gauche + Alignement : 0,63 cm + Retrait : 1,4 cm

a mis en forme : Police :11 pt, Gras

a mis en forme : Police :11 pt

a mis en forme : Paragraphe de liste, Interligne : Multiple 1,15 li, Avec puces + Niveau : 1 + Alignement : 1,27 cm + Retrait : 1,9 cm

a mis en forme : Police :11 pt, Gras

a mis en forme

a mis en forme : Police :11 pt

a mis en forme

a mis en forme : Police :11 pt, Gras

a mis en forme

a mis en forme : Police :11 pt

a mis en forme

a mis en forme : Police :Non Gras, Anglais (États-Unis)

a mis en forme : Police :Non Gras

a mis en forme

a mis en forme : Police :Non Gras, Anglais (États-Unis)

a mis en forme : Police :Non Gras

a mis en forme : Police :Non Gras

a mis en forme : Police :11 pt, Anglais (États-Unis)

a mis en forme : Police :11 pt, Gras

a mis en forme

a mis en forme : Police :11 pt

a mis en forme : Police :Gras

a mis en forme

a mis en forme : Police :Gras

a mis en forme : Police :11 pt

a mis en forme : Police :11 pt, Gras

a mis en forme

a mis en forme : Police :11 pt

a mis en forme

a mis en forme

a mis en forme

debriefings at the local or national level.

9.3. Suggested reporting templates are provided in Appendix F, to assist in the preparation of the report.

9.4. The completed Initial Exercise Report, reflecting insights from local debriefings, must be submitted to the Exercise Leader within two weeks after the conclusion of the exercise.

8.1. The template for the Initial Exercise Report is available in Appendix G. Based on experience during the exercise, participating agencies (principally Directing Staff) are expected to complete an Initial Exercise Report.

9.5.

8.2. The Initial Exercise Report focuses attention on the major lessons learnt, recommendations and conclusions. It may be necessary for the participating agencies to conduct immediate internal (local or national) debriefings in order to compile the Initial Exercise Report.

Suggested reporting requirements are presented at Appendix G.

8.3. Based on local debriefing, the Initial Exercise Report is to be submitted to the Exercise Leader within two weeks of the end of the exercise.

8.3. The Initial Exercise Report template is presented at Appendix H.

9. Exercise debrief/debriefings

9.1. A Debrief Meeting shall be convened within three months of the exercise's completion, preferably within one month, and is often held in conjunction with the Planning Meeting for the subsequent exercise.

9.2. The Debrief Meeting provides an opportunity for participating agencies (Directing Staff) to share their experiences, highlight common themes, discuss lessons learned, and offer recommendations. This input enables the Exercise Leader to compile a comprehensive Final Exercise Report.

9.1. Guiding principles for conducting Debrief Meetings are outlined in Appendix H. A Debrief Meeting is held within 3 months, preferably 1 month after the exercise has been conducted, often conjoined with the Planning Meeting of the next exercise.

9.2. The Debrief Meeting allows the participant agencies (Directing Staff) to present their experience of the exercise, identifying common themes, lessons learned and recommendations, in order for the Exercise Leader to prepare a Final Exercise Report.

9.3. Guideline principles concerning the Debrief Meetings are presented at Appendix I.

10. Final exercise report

10.1. The Exercise Leader shall consolidate the Initial Exercise Reports submitted by the Directing Staff, along with the presentations and discussions from the Debrief Meeting, to prepare the Final Exercise Report.

10.2. The Final Exercise Report shall be completed and made available no later than one month following the Debrief Meeting. It should be distributed to all exercise participants (Directing Staff) and published on the ICAO ESAF and WACAF Offices' websites.

a mis en forme : Police :11 pt

a mis en forme : Ajouter de l'espace entre les paragraphes de même style, Interligne : Multiple 1,15 li

a mis en forme : Police :11 pt

a mis en forme : Ajuster automatiquement le retrait de droite quand la grille est définie, Interligne : Multiple 1,15 li, Hiérarchisation + Niveau : 2 + Style de numérotation : 1, 2, 3, ... + Commencer à : 1 + Alignement : Gauche + Alignement : 0,63 cm + Retrait : 1,4 cm, Autoriser lignes veuves et orphelines, Espacement automatique entre les caractères asiatiques et latins, Espacement automatique entre les caractères asiatiques et les chiffres

a mis en forme : Interligne : Multiple 1,15 li

a mis en forme : Justifié, Espace Avant : 6 pt, Après : 6 pt, Interligne : Multiple 1,15 li

a mis en forme : Paragraphe de liste, Retrait : Gauche : 0,63 cm, Suspendu : 0,76 cm, Interligne : Multiple 1,15 li, Hiérarchisation + Niveau : 2 + Style de numérotation : 1, 2, 3, ... + Commencer à : 1 + Alignement : Gauche + Alignement : 0,63 cm + Retrait : 1,4 cm

a mis en forme : Police :11 pt, Gras

a mis en forme : Police :11 pt

a mis en forme : Police :11 pt, Gras

a mis en forme : Police :11 pt

a mis en forme : Police :11 pt

a mis en forme : Interligne : Multiple 1,15 li

a mis en forme : Justifié, Espace Avant : 6 pt, Après : 6 pt, Interligne : Multiple 1,15 li

a mis en forme : Paragraphe de liste, Retrait : Gauche : 0,63 cm, Suspendu : 0,87 cm, Interligne : Multiple 1,15 li, Hiérarchisation + Niveau : 2 + Style de numérotation : 1, 2, 3, ... + Commencer à : 1 + Alignement : Gauche + Alignement : 0,63 cm + Retrait : 1,4 cm

a mis en forme : Police :11 pt, Gras

a mis en forme : Police :11 pt

a mis en forme : Interligne : Multiple 1,15 li

a mis en forme : Police :11 pt

~~10.1. The template for the Final Exercise Report is provided in Appendix I. The Exercise Leader is to consolidate the Initial Exercise Reports from the Directing Staff, as well as Debrief Meeting presentations and discussions, in order to prepare a Final Exercise Report.~~

a mis en forme : Police : 11 pt

~~10.2. The Final Exercise Report is to be available no later than one month after the Debrief Meeting. The Final Exercise Report is to be circulated to all exercise participants (Directing Staff), and posted on the ICAO ESAF and WACAF Offices website in coordination with the Secretary of the ESAF and WACAF Offices VOLCEX/SG.~~

10.3. The Final Exercise Report template is presented at Appendix J.

11. Follow-up of lessons learned, recommendations and conclusions

~~11.1. Each participating agency is responsible for conducting the necessary follow-up on any internal issues arising from the exercise.~~

a mis en forme : Justifié, Espace Avant : 6 pt, Après : 6 pt, Interligne : Multiple 1,15 li

a mis en forme : Ajouter de l'espace entre les paragraphes de même style, Interligne : Multiple 1,15 li

~~11.2. The Secretariat, in consultation with the Chairpersons of the AFI VOLCEX/SG, will address issues of regional or international significance that may require the attention of AASPG Contributory Bodies. Each participant agency is expected to undertake the necessary follow-up of internal issues to arise from the exercise. The Secretary of the AFI VOLCEX/SG, with input from the AFI VOLCEX/SG members, is expected to address those issues arising of regional or international significance that may warrant the attention of the A in the first instance.~~

a mis en forme : Interligne : Multiple 1,15 li

11.1. ▲

PART III – APPENDICES

APPENDIX A

VOLCANO OBSERVATORIES STATES (AFI e ANP Volume I Part V)

Table 1 Volcano Observatories States for AFI Region

State	Volcano Observatory
Cameroon	Institut de recherches géologiques et minières de Yaoundé
Cape Verde	Serviço Nacional de Meteorologia e Geofísica, P.O. Box 76, Ilha de Sal
Comoros	Observatoire Volcanologique du Karthala, Moroni
Democratic Republic of Congo/RDC	Centre de Recherches en Sciences Naturelles (CRSN) Lwiro, Bukavu
Eritrea	University of Asmara, Geophysics Section
Ethiopia	Geophysics Observatory, Addis Ababa University

a mis en forme : Police :11 pt

a mis en forme : Normal, Interligne : Multiple 1,15 li,
Sans numérotation ni puces

a mis en forme : Justifié, Espace Avant : 6 pt, Après : 6
pt, Interligne : Multiple 1,15 li

a mis en forme : Justifié, Interligne : Multiple 1,15 li

a mis en forme : Normal, Gauche, Interligne : Multiple
1,15 li

a mis en forme : Police :11 pt, Italique

a mis en forme : Justifié, Interligne : Multiple 1,15 li

a mis en forme

a mis en forme : Justifié, Interligne : Multiple 1,15 li

a mis en forme

a mis en forme : Police :11 pt

a mis en forme : Interligne : Multiple 1,15 li

a mis en forme : Police :11 pt

a mis en forme : Interligne : Multiple 1,15 li

a mis en forme : Portugais (Portugal)

a mis en forme

a mis en forme : Police :11 pt

a mis en forme : Interligne : Multiple 1,15 li

a mis en forme

a mis en forme : Police :11 pt

a mis en forme : Interligne : Multiple 1,15 li

a mis en forme : Police :11 pt

a mis en forme : Interligne : Multiple 1,15 li

a mis en forme

a mis en forme

a mis en forme : Police :11 pt

a mis en forme : Interligne : Multiple 1,15 li

a mis en forme

a mis en forme : Police :11 pt

a mis en forme : Interligne : Multiple 1,15 li

a mis en forme : Police :11 pt

a mis en forme : Interligne : Multiple 1,15 li

a mis en forme

a mis en forme : Police :11 pt

a mis en forme : Interligne : Multiple 1,15 li

a mis en forme : Police :11 pt

a mis en forme : Interligne : Multiple 1,15 li

France (La Réunion)	Observatoire volcanologique du Piton de la Fournaise
Kenya	Geology Department, University of Nairobi

APPENDIX A :

APPENDIX B

ANNUAL VOLCANIC ASH EXERCISE ACTIVITY SCHEDULE

Table 21 - Annual Volcanic Ash Exercise Activity Schedule

Timeframe	Activity	Action by	Status
January	Finalizing and publication of Final Exercise Report (VOLCEX{No-nn/YYYY})-(VOLCEX{YY-1}/02)	Exercise Leader in coordination with the Secretariat and the Chairpersons of the VOLCEX/SG	
February	-	-	-
March	Preparation, finalizing and publication of the forthcoming Exercise Directive (VOLCEX{No-nn+1/YYYY})-(VOLCEX{YY}/01)	Exercise Leader in coordination with the Secretariat and the Chairpersons of the VOLCEX/SG	
April	Conduct of the scheduled exercise (VOLCEX{No-nn+1/YYYY})-(VOLCEX{YY}/01)	Exercise Leader, Directing Staff and Key Players	
May	Submission of Initial Exercise Reports (VOLCEX{No-nn+1/YYYY})-(VOLCEX{YY}/01)	Directing Staff to Exercise Leader	

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Timeframe	Activity	Action by	Status	
June	- Debrief Meetings ((VOLCEX{No-nn+1/YYYY})-(VOLCEX{YY}/01) and - Joint Planning Meeting (VOLCEX{No-nn+2/YYYY}) (VOLCEX{YY}/02) Preparation of Exercise Directive (VOLCEX{YY}/02) - VOLCEX/SG annual meeting (VOLCEX{No-nn+2/YYYY})	- Exercise Leader and Directing Staff - Exercise Leader - VOLCEX/SG members		a mis en forme : Justifié, Espace Après : 6 pt, Interligne : Multiple 1,15 li a mis en forme : Police :11 pt a mis en forme : Justifié, Espace Après : 6 pt, Interligne : Multiple 1,15 li a mis en forme : Justifié, Interligne : Multiple 1,15 li a mis en forme : Justifié, Espace Après : 6 pt, Interligne : Multiple 1,15 li a mis en forme : Police :11 pt a mis en forme : Justifié, Espace Après : 6 pt, Interligne : Multiple 1,15 li a mis en forme : Justifié, Espace Avant : 6 pt, Après : 6 pt, Interligne : Multiple 1,15 li
July	Finalizing and publication of Final Exercise Report (VOLCEX{No-nn/YYYY}/01)	Exercise Leader in coordination with Secretary of the VOLCEX/SG		a mis en forme : Justifié, Espace Après : 6 pt, Interligne : Multiple 1,15 li a mis en forme : Police :11 pt a mis en forme : Justifié, Espace Après : 6 pt, Interligne : Multiple 1,15 li
August	-	-	-	a mis en forme : Police :11 pt a mis en forme : Justifié, Espace Après : 6 pt, Interligne : Multiple 1,15 li
September/October	Preparation and publication of Exercise Directive (VOLCEX{No-nn+2/YYYY})Finalizing and publication of Exercise Directive (VOLCEX{YY}/02)	Exercise Leader, Directing Staff and Key Players Exercise Leader in coordination with Secretary of the VOLCEX/SG		a mis en forme : Justifié, Espace Après : 6 pt, Interligne : Multiple 1,15 li a mis en forme : Justifié, Espace Avant : 6 pt, Après : 6 pt, Interligne : Multiple 1,15 li a mis en forme : Justifié, Espace Après : 6 pt, Interligne : Multiple 1,15 li
November/October	Conduct of Exercise (VOLCEX{No-nn+2/YYYY})-VOLCEX{YY}/02	Directing Staff to Exercise Leader (last exercise)Exercise Leader, Directing Staff and Key Players		a mis en forme : Police :11 pt a mis en forme : Justifié, Espace Après : 6 pt, Interligne : Multiple 1,15 li a mis en forme : Justifié, Espace Avant : 6 pt, Après : 6 pt, Interligne : Multiple 1,15 li
November	Submission of Initial Exercise Reports (VOLCEX{No-nn+2/YYYY}/02)	Directing Staff to Exercise Leader (last exercise)Directing Staff to Exercise Leader (last exercise)		a mis en forme : Justifié, Espace Après : 6 pt, Interligne : Multiple 1,15 li a mis en forme : Police :11 pt
December	- Debrief Meeting (VOLCEX{No-nn+2/YYYY}/02) and - Planning Meeting (VOLCEX{No-nn+3/YYYY+1}/01) Preparation of Exercise Directive (VOLCEX{YY+1}/01)	Exercise Leader and Directing Staff Exercise Leader		a mis en forme a mis en forme a mis en forme a mis en forme : Police :11 pt a mis en forme a mis en forme : Justifié, Interligne : Multiple 1,15 li a mis en forme a mis en forme a mis en forme : Police :11 pt a mis en forme : Justifié, Interligne : Multiple 1,15 li
Note 1: All entries are indicative and subject to change.				

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Note 2: {YY} is the year of the exercise and {NN} is the sequence number of the exercise. For example, “EXERCISE VOLCEX20/01” is the first exercise of 2020, whilst Exercise VOLCEX20/02 is the second exercise of 2020.

APPENDIX B - C

DIRECTING STAFF INSTRUCTIONS

1. The Directing Staff is the controlling work group for Exercise VOLCEX and carries out the following functions:
- a) Represent the organizations of the exercise which collaborate in conducting a certain exercise (e.g. VAAC, MET, ATM, AIS, AO, etc);

a mis en forme : Justifié, Espace Avant : 6 pt, Après : 6 pt, Interligne : Multiple 1,15 li

a mis en forme : Police : (Asiatique) + Titres asiatiques (SimSun), 11 pt, Couleur de police : Accent 1

a mis en forme : Police : 11 pt

a mis en forme : Interligne : Multiple 1,15 li

- b) Negotiate the specific objectives of each exercise (during Planning Meeting);
- c) Assists in the design of the exercise scenario which serves the objectives;
- d) Prepares the content of messages which are the result of the exercise scenario;
- e) Provides input to the Exercise Directive;
- f) Initiates and oversees the exercise operation;
- g) Submits Initial Exercise Report to Exercise Leader; and
- h) Provides input during the Debrief Meeting.

2. The Directing Staff have the following post exercise duties:

- a) Present the exercise lessons learnt and follow-up recommendations within their own particular specialist area; and
- b) Advises and instructs exercise participants (players) and new Directing Staff members, and facilitates appropriate renewal of Directing Staff.

a mis en forme : Ajouter de l'espace entre les paragraphes de même style, Interligne : Multiple 1,15 li

a mis en forme : Interligne : Multiple 1,15 li

APPENDIX DC -

EXERCISE PLANNING MEETING

1. Planning Meetings are held at least 3 months prior to a planned exercise in the AFI Region, and are chaired by the Exercise Leader (as determined by the AFI VOLCEX/SG)
2. The main aims are to:
 - a) Determine the specific date(s) and time(s) of the exercise;

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a mis en forme : Interligne : Multiple 1,15 li

a mis en forme : Justifié, Espace Après : 6 pt, Interligne : Multiple 1,15 li

a mis en forme : Normal, Interligne : Multiple 1,15 li

a mis en forme : Ajouter de l'espace entre les paragraphes de même style, Interligne : Multiple 1,15 li

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- b) Negotiate the aims and objectives of the exercise;
 - c) Design a scenario to meet the objectives of the exercise;
 - d) Identify agencies and personnel with Directing Staff responsibility; and
 - e) Exchange information of interest for the exercise community.
3. ~~3.~~ The Planning Meeting should normally be hosted by one of the participating agencies. Delegates should include key personnel able to make decisions on behalf of their own organization or specialist area.
4. ~~4.~~ As chair, the Exercise Leader, in co-ordination with the host agency, should prepare the Planning Meeting agenda, and provide necessary travel/accommodation and meeting facilities information. Any delegate may suggest an agenda item, which should be forwarded to the Exercise Leader at least four weeks prior to the Planning Meeting.
5. ~~5.~~ The delegates attending the Planning Meeting shall be prepared to:
- a) Present ideas for new exercise and develop a complete scenario for the exercise;
 - b) Decide date for the next exercise;
 - c) Identify Directing Staff.
6. ~~6.~~ The Exercise Leader may elect to prepare minutes which are to be circulated to the appropriate organizations not more than four weeks after the Planning Meeting.

a mis en forme : Interligne : Multiple 1,15 li

a mis en forme : Ajouter de l'espace entre les paragraphes de même style, Interligne : Multiple 1,15 li

a mis en forme : Interligne : Multiple 1,15 li

a mis en forme : Justifié, Espace Avant : 6 pt, Après : 6 pt, Interligne : Multiple 1,15 li

a mis en forme : Police :11 pt, Anglais (États-Unis)

a mis en forme : Police :11 pt

a mis en forme : Normal, Ne pas ajuster le retrait de droite quand la grille est définie, Interligne : Multiple 1,15 li, Ne pas ajuster l'espace entre le texte latin et asiatique, Ne pas ajuster l'espace entre le texte et les nombres asiatiques

a mis en forme : Interligne : Multiple 1,15 li

a mis en forme : Ajouter de l'espace entre les paragraphes de même style, Interligne : Multiple 1,15 li

APPENDIX DE -

EXERCISE DIRECTIVE TEMPLATE

Title: EXERCISE DIRECTIVE FOR EXERCISE VOLCEX{~~No-nn/YYYY~~}/{~~NN~~}

1. INTRODUCTION

1.1. The AFI Region conducts volcanic ash exercises to practice and enhance inter-agency

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coordination in response to volcanic activity, thereby ensuring the safety, regularity, and efficiency of aviation during volcanic eruptions.

1.2. This exercise will showcase the provision and exchange of volcanic ash information to support flexible airspace management, enhance situational awareness, facilitate collaborative decision-making, and enable dynamically optimized flight trajectory planning.

1.3. The exercise will have no operational impact, and designated personnel are expected to be available to actively participate,

~~1.1. Volcanic ash exercises are conducted by ICAO AFI Region in order to practice and develop inter-agency response to volcanic activity, in order to maintain safety, regularity and efficiency of aviation in the event of a volcanic eruption”.~~[†]

~~1.2. The ICAO Africa Indian Ocean (AFI) volcanic ash exercise to be conducted in {YYY}, named AFI VOLCEX {YY}/{NN}, will involve the simulated eruption of {volcano Name} volcano in the {State}.~~

~~1.3. The exercise will demonstrate the provision and exchange of volcanic ash information in support of flexible airspace management, improved situational awareness and collaborative decision making, and dynamically optimized flight trajectory planning.~~

~~1.4. There will be no operational impact in this exercise and dedicated staff is expected to be available for participation in the exercise.~~

~~1.5.1.4.~~ Exercise date and time (UTC): *(complete)*

~~1.6.1.5.~~ Exercise Leader: *(complete)*

~~1.7.1.6.~~ Pre-Exercise Meeting: *(date, agenda, related arrangements)*

~~1.8.1.7.~~ Debrief Meeting: *(date, agenda, related arrangements)*

~~1.9.1.8.~~ Debrief host and chairman: *(complete)*

2. PARTICIPATING AGENCIES

A list of the agencies that have agreed to participate in the exercise, listed according to area of responsibility (i.e. VAAC, MET Watch Office, ACC, AO, etc.).

3. AIMS AND OBJECTIVES

The negotiated objectives of the exercise.

4. EXERCISE DURATION

The period which the exercise will be conducted.

5. EXERCISE VOLCANO

Name, number and position of the exercise volcano.

6. EXERCISE SCENARIO

[†]ICAO Doc 9766 – Handbook on the International Airways Volcano Watch, Appendix F – Guidance for Conducting Volcanic Ash Exercises in ICAO Regions

a mis en forme : Interligne : Multiple 1,15 li

a mis en forme : Non Étendu de/ Condensé de

a mis en forme : Police : (Par défaut) Times New Roman, 11 pt

a mis en forme : Justifié

a mis en forme : Interligne : Multiple 1,15 li

A short description of the events of volcanic and meteorological activity.

7. EXERCISE SCHEDULE

A chronological list of the actions to be undertaken before and during the exercise by participating agencies.

Table 13. Exercises Schedule

Date /Time (UTC)	Player	Event /Action
.....		
.....		
.....		

8. EXERCISE SCENARIO MESSAGES

Scenario messages related the exercise, including at least one example for each of the following: VONA, AIM, VAA, VAG, SIGMET ASHTAM or VA NOTAM.

9. COMMUNICATIONS

Instructions regarding message handling and other communications.

10. DIRECTING STAFF

Contact list of persons responsible for the preparation and conduct of the exercise and who have the duty be available at exercise workstation(s) during the exercise.

Table 24. Directing Staff Contacts Details

Organization	State	Contact name	Contact position	Primary telephone number	Secondary telephone number	Fax number	e-mails address
...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...

11. SPECIAL INSTRUCTIONS

Any other special instructions of relevance to the conducting of the exercise.

12. LIST OF ABBREVIATIONS

A list of abbreviations used in the Exercise Directive, including but not limited to, the following:

a mis en forme : Police :11 pt

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a mis en forme : Espace Avant : 6 pt, Après : 6 pt, Interligne : Multiple 1,15 li

a mis en forme : Interligne : Multiple 1,15 li

a mis en forme : Police :11 pt

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Table 35. List of Abbreviations

Abbreviation	Decode
ACC	Area Control Centre
AIM	ATFCM Information Message
AIS	Aeronautical Information Service
AO	Aircraft Operator
AOC	Airline Operator Centre
ANSP	Air Navigation Service Provider
ATFCM	Air Traffic Flow and Capacity Management
ASHTAM	Special series NOTAM notifying, by means of a specific format, change in activity of a volcano, a volcanic eruption and/or volcanic ash cloud that is of significance to aircraft operations
ATM	Air Traffic Management
ATS	Air Traffic Services
CFMU	Central Flow Management Unit
CTR	Control Zone
FMP	Flow Management Unit
IFPS	Integrated Initial Flight Plan Processing System
IFPZ	IFPS Zone
MWO	Meteorological Watch Office
NOF	International NOTAM Office
NOTAM	A notice distributed by means of telecommunication containing information concerning the establishment, condition or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to personnel concerned with flight operations
SIGMET	Information concerning en-route weather phenomena which may affect the safety of aircraft operations

Prepared by the ICAO ESAF and WACAF Regional Offices - February-June 2024

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Abbreviation	Decode
VA	Volcanic Ash
VAA	Volcanic Ash Advisory
VAAC	Volcanic Ash Advisory Centre
VAG	Volcanic Ash Graphic
VONA	Volcano Observatory Notice for Aviation

APPENDIX ~~FE~~ -

COMMUNICATIONS INSTRUCTIONS

MESSAGE TRAFFIC

Exercise messages such as VONA, VAA, VAG, SIGMET, NOTAM and AIM are to be distributed to normal subscribers.

The free-text part of *all messages* shall commence with or include clear reference to “EXERCISE VOLCEX{YY}/{NN}”.

The free-text part of *all messages* shall terminate with the suffix “EXERCISE EXERCISE EXERCISE”.

Example SIGMET and NOTAM:

WVUK02 EGRR 131200

EGGX SIGMET 2 VALID 131200/131800 EGRREGGX

SHANWICK OCEANIC FIR EXERCISE VOLCEX11/01 [...]

EXERCISE EXERCISE EXERCISE=

(A0778/10 NOTAMR A0777/10

Q) BIRD/QWWXX/IV/NBO/W/000/999/6337N01901WXXX

A) BIRD

B) 1104130900 C) 1104131200

E) EXERCISE VOLCEX11/01 [...] EXERCISE EXERCISE EXERCISE

F) GND G) UNL)

a mis en forme : Interligne : Multiple 1,15 li

a mis en forme : Police :11 pt

a mis en forme : Interligne : Multiple 1,15 li

a mis en forme : Police :11 pt

a mis en forme : Interligne : Multiple 1,15 li

a mis en forme : Police :11 pt

a mis en forme : Interligne : Multiple 1,15 li

a mis en forme : Police :11 pt

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a mis en forme : Justifié, Espace Après : 6 pt, Interligne : Multiple 1,15 li

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a mis en forme : Normal, Ne pas ajuster le retrait de droite quand la grille est définie, Interligne : Multiple 1,15 li, Ne pas ajuster l'espace entre le texte latin et asiatique, Ne pas ajuster l'espace entre le texte et les nombres asiatiques

a mis en forme : Interligne : Multiple 1,15 li

a mis en forme : Justifié, Espace Avant : 6 pt, Après : 6 pt, Interligne : Multiple 1,15 li

a mis en forme : Police : (Par défaut) Times New Roman

a mis en forme : Police : (Par défaut) Times New Roman, Portugais (Portugal)

a mis en forme : Police : (Par défaut) Times New Roman, Anglais (États-Unis)

a mis en forme : Police : (Par défaut) Times New Roman

Any voice communications via telephone or radio shall commence with the prefix

“EXERCISE VOLCEX{YY}/{NN}”.

Note: Where {YY} is the year of the exercise and {NN} is the sequence number of the exercise. For example, “EXERCISE VOLCEX11/01” is the first exercise of 2011.

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a mis en forme : Police : (Par défaut) Times New Roman, 11 pt

a mis en forme : Police :11 pt

a mis en forme : Police : (Par défaut) Times New Roman, 11 pt

a mis en forme : Police :11 pt

APPENDIX ~~GF~~ -

REPORTING REQUIREMENTS

1. Immediate local Debriefing.

Directing Staff members should give an initial debriefing, within their organization, immediately after the termination of the exercise. The Initial Debrief should be short and enable the players to:

- Obtain an immediate assessment of their performance.
- Profit from their strength and weaknesses revealed by the exercise.

2. National Debrief.

If considered appropriate, an inter-agency debrief meeting is recommended on a national level prior to the Debrief Meeting.

3. 3. Debrief Meeting.

The Exercise Debrief should be attended by all agencies participating in the exercise and should be detailed to enable players as well as Directive Staff members to:

- Discuss the lessons learned;
- Identify strength and weaknesses of the operation;
- Contribute to the Final Exercise Report;
- Identify major lessons learnt; and
- Identify and discuss recommendations and conclusions.

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4. Reporting.

The aim of reporting is to focus on major lessons learnt, recommendations and conclusions of the exercise operation and to distribute those to the participating organizations and to the appropriate international organizations. The following reporting chain should be followed:

- a) Initial Exercise Reports. An initial draft report by each participating organization should be forwarded to the Exercise Leader within one month of the end of the exercise. The Exercise Leader will collate the reports in time for the Debrief Meeting in order then prepare the Final Exercise Report.
- b) Final Exercise Report. The Exercise Leader should prepare the Final Exercise Report within two months of the Debrief Meeting and publish through the AFI VOLCEX/SG Secretary to all the exercise participants.

a mis en forme : Justifié, Espace Après : 6 pt, Interligne : Multiple 1,15 li

APPENDIX **GH** -

INITIAL EXERCISE REPORT TEMPLATE

Title: INITIAL EXERCISE REPORT FOR EXERCISE VOLCEX{YY}/{NN}

Name of reporting organization: {Enter}

1. Introduction

Include date of the exercise, synopsis of how the exercise ran and notes if the exercise operation ran in some ways opposed to the way it was planned in the Exercise Directive.

2. Co-operating Organizations

List the VAACs, Meteorological Watch Offices, ACC, Aircraft operators, etc, cooperating with the reporting organization during the exercise.

3. Communications

Assess communications operations, i.e. message handling and distribution as well as the other information exchange.

4. Log of exercise operation

A recapitulation of the exercise operation log, as it was actually played on the exercise day.

5. Lessons learned

List the major or most significant lessons learned during the exercise. Approximately 3 items.

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Prepared by the ICAO ESAF and WACAF Regional Offices - ~~February-June 2024~~6

6. Recommendations

List recommendations, if appropriate, within the organization, nationally and/or internationally. Approximately 3 items.

7. Conclusions

Provide any final concluding remarks relating to the exercise.

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APPENDIX H -

EXERCISE DEBRIEF MEETING

1. Debrief Meetings are held within 3 months, preferably 1 month after an exercise in the AFI Region, and chaired by the Exercise Leader (as determined by the AFI VOLCEX/SG).
2. The main aims are to:
 - a) Discuss the conduct of the exercise;
 - b) Identify lessons learned and recommendations;
 - c) Contribute to the Final Exercise Report; and
 - d) Exchange items of interest for the exercise community.
3. The Debrief Meetings should normally be hosted by one of the participating agencies. Directing Staff members should attend the Debrief Meeting, where possible.
4. As chairman, the Exercise Leader, in co-ordination with the host agency, should prepare the Debrief Meeting agenda, and provide the necessary travel/accommodation and meeting facilities information. Any delegate may suggest an agenda item, which should be forwarded to the Exercise Leader at least four weeks prior to the Debrief Meeting.

APPENDIX I -

FINAL EXERCISE REPORT TEMPLATE

Title: FINAL ~~REPORT OF VOLCEX~~ ~~No-nn/YYYY~~

~~EXERCISE REPORT FOR EXERCISE VOLCEX(YY)/(NN)~~

2.1 Introduction

Include date of the exercise, the Exercise Leader and Directing Staff. Synopsis of how the exercise ran and notes if the exercise operation ran in some ways opposed to the way it was planned in the Exercise Directives.

3.2 Co-operating organizations.

List all the VAACs, Meteorological Watch Offices, ACC, Aircraft operators, etc, participating in the whole exercise.

4.3 Log of exercise operation

A recapitulation of the exercise operation log as it was actually played on the exercise day.

5.4 Communications

Assess communications operations, i.e. message handling and distribution as well as the other information exchange.

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a mis en forme : Justifié, Espace Avant : 6 pt, Après : 6 pt, Interligne : Multiple 1,15 li

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6.5. Lessons learned

List major or most significant lessons learned during the exercise. Approximately 3 items.

7.6. Recommendations

List recommendations if appropriate, and note specially it recommendations which apply to international practices and documents. Approximately 3 items.

8.7. Conclusions

Provide any final concluding remarks relating to the exercise.

-END-

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