

**REPUBLIC OF MAURITIUS**  
**DEPARTMENT OF CIVIL AVIATION**  
Aeronautical Information Service  
Sir Seewoosagur Ramgoolam International Airport  
Plaine Magnien

TEL : (230) 603 2000  
FAX : (230) 637 3164  
AFS : FIMPYNYX  
E-mail: civil-aviation@govmu.org

**AIP Supplement**  
**S006/18**  
26 October 2018

**ATM CONTINGENCY PLAN FOR INTERNATIONAL FLIGHTS TO TRANSIT THE  
UPPER AIRSPACE OF THE MAURITIUS FIR**

**1.0 Introduction**

1.1 The purpose of this AIP supplement is to review the Mauritius Contingency Plan for international flights to continue transiting safely in the Mauritius FIR in the event that the air traffic and support services normally undertaken by the Mauritius Area Control Centre (ACC) become partially or totally unavailable due to any occurrence that affects flight operations.

**2.0 Activation**

2.1 This Contingency Plan enclosed in this AIP supplement will be activated and cancelled by NOTAM whenever the need arises.

**3.0 Effective date**

3.1 This AIP Supplement will become effective on receipt.

**4.0 Cancellation**

4.1 This AIP Supplement replaces AIP Supplement 03/09 dated 26 March 2009 and will remain effective until incorporated in AIP Mauritius.

V Mokoollall  
**For Director of Civil Aviation**

**ATM CONTINGENCY PLAN**

**FOR INTERNATIONAL FLIGHTS**

**TO TRANSIT THE UPPER AIRSPACE**

**OF THE MAURITIUS FIR**

## FOREWORD

This Contingency Plan will come into effect as determined by the Department of Civil Aviation Mauritius, who is the authority responsible for civil aviation operations in Mauritius.

In the event that Mauritius ACC becoming inoperative, this plan will be activated catering for the worst case scenario of a total disruption in ATS for the Upper Airspace of Mauritius.

The Mauritius FIR is an oceanic airspace of 9,000,000 sq.km and is the transiting airspace for Trans-Indian-Ocean flights from Asia, Australia to the Southern African Region. In the event that ATS is disrupted in Mauritius this Contingency Plan provides for the continuation of those flights across the Mauritius FIR.

This Plan has been developed in coordination with the civil aviation authorities responsible for the adjacent FIRs and calls for limited flight information and alerting services to be provided by adjacent ACCs.

This Plan has been prepared in coordination with the International Civil Aviation Organization (ICAO) to meet the provisions of ICAO Annex 11 — *Air Traffic Services* Chapter 2 (2.31), to provide for the safe and orderly continuation of international flights through the Mauritius FIR.

This Plan has been developed with the close co-operation and collaboration with IATA and the civil aviation authorities and Air Navigation Service Providers (ANSPs) responsible for the adjacent FIRs.

This Plan will be activated by promulgation of a NOTAM issued by the Mauritius NOTAM Office as far as practicable. However, when such prior notification is impracticable for any reason, this Plan will be put into effect through notification by the designated authority, as approved by the Director of Civil Aviation Mauritius or the United Nations. In the event that this is also not practical, notification may be made by ICAO in accordance with arrangements made with Mauritius.

Arrangements have been made with civil aviation authorities responsible for adjacent airspaces, and action on their part in the event of activation of the Plan will be in accordance with operational *Letters of Agreement (LOAs)* established between Mauritius and adjacent States concerned. Aircraft flying through the Mauritius FIR during activation and operation of the Mauritius Contingency Plan are expected to comply with the requirements of this Plan and to cooperate with other airspace users as necessary for continued safety of air navigation.

It is to be understood that contingency arrangements that constitute a temporary deviation from the approved Regional Air Navigation Plan are subject to approval as necessary, by the President of the ICAO Council on behalf of the Council.

Proposed amendments to this plan shall be forwarded to:

**Director of Civil Aviation**  
**Department of Civil Aviation**  
**SSR International Airport**  
**Plaine Magnien**  
**Republic of Mauritius**

Tel: (230) 6032000

Fax: (230) 6373164

Email: [civil-aviation@govmu.org](mailto:civil-aviation@govmu.org)

## TABLE OF CONTENTS

	Page
Foreword	3
Table of Contents	4
Record of Amendments	5
Contingency plan for the Mauritius FIR	6
Objective	6
States and Flight Information Regions Affected	6
Management of the Contingency Plan	7
Contingency Route Structure	8
Air Traffic Management and Contingency Procedures	8
Transfer of control and coordination of traffic	12
Public Health Emergencies	12
Volcanic Ash Contingency Plan	13
Pilot and Operator Procedures	13
Communication Procedures	15
Aeronautical Information Support Services	15
Search and Rescue	16
Responsibility of the accredited ICAO Regional Office (ESAF)	16
Appendix A - Contact details for all concerned States, IATA and accredited ICAO Regional Office	17
Appendix B - Contact details of the AOCG members	18
Appendix C - Contingency Route Structure during total unavailability of the Mauritius FIR or associated air traffic services	19
Appendix D - Contingency Route Structure – Chart	20
Appendix E - Sample NOTAM	21
Appendix F – List of Frequencies to be used	22
Appendix G - Volcanic Ash Contingency Plan	23



# ATM CONTINGENCY PLAN FOR INTERNATIONAL FLIGHTS TO TRANSIT THE UPPER AIRSPACE OF THE MAURITIUS FIR

## 1. OBJECTIVE

- 1.1 This Air Traffic Management (ATM) Contingency Plan contains arrangements to ensure the continued safety of air navigation in the event of partial or total disruption of air traffic services in the Mauritius FIR in accordance with ICAO Annex 11 – *Air Traffic Services*, Chapter 2, Section 2.31. This Contingency Plan provides the ATS procedures and contingency route structure using existing airways in most cases that will allow aircraft operators to transit the Mauritius FIR.
- 1.2 This Contingency Plan does not address arrangements for aircraft arriving and departing Mauritius, or for domestic flight operations within the territory of Mauritius.

## 2. STATES AND FLIGHT INFORMATION REGIONS AFFECTED

- 2.1 In the event that the DCA Mauritius activates this Contingency Plan, adjacent States and civil aviation authorities responsible for air navigation services in the adjacent FIRs will be notified in accordance with the *Letters of Agreement* established between Mauritius and adjacent FIRs concerned. The adjacent States' FIRs and ATS units directly affected by this Contingency Plan are as follows:

- a) **State:** Australia  
**Name of FIR:** Melbourne  
**Name of ACC:** Melbourne ACC
- b) **State:** Maldives  
**Name of FIR:** Malé FIR  
**Name of ACC:** Malé ACC
- c) **State:** India  
**Name of FIR:** Mumbai FIR  
**Name of ACC:** Mumbai ACC
- d) **State:** Seychelles  
**Name of FIR:** Seychelles FIR  
**Name of ACC:** Seychelles ACC
- e) **State:** Madagascar  
**Name of FIR:** Antananarivo FIR  
**Name of ACC:** Antananarivo ACC
- f) **State:** France  
**Name of TMA:** Saint Denis TMA  
**Name of ACC:** Saint Denis Gillot ACC
- g) **State:** South Africa  
**Name of FIR:** Johannesburg  
**Name of ACC:** Johannesburg OCC

2.2 The contact details of the civil aviation authorities and organizations concerned are contained in **Appendix A** to this document. These details will be kept up to date in accordance with Letters of Agreement and the Contingency Plan shall be updated accordingly.

### **3. MANAGEMENT OF THE CONTINGENCY PLAN**

3.1 The contingency measures set out in this Plan are based on known, foreseeable or probable impact of interruptions in ATS, caused by natural occurrences or other circumstances, which, in one way or another may partially or totally disrupt the provision of ATS and/or related support services in the Mauritius FIR, or make the airspace unavailable or unsafe for use.

3.2 The following arrangements have been put in place to support management of the Contingency Plan in order to ensure that international flights may continue in a safe and orderly manner through the Mauritius FIR.

#### **ATM Operational Contingency Group**

3.3 Whenever circumstances permit, as soon as practicable in advance of, or after a contingency event has occurred, the Director of Civil Aviation shall convene an ATM Operational Contingency Group (AOCG) comprising representatives from:

- 1) ATM Division;
- 2) CNS Division;
- 3) Aeronautical Meteorological Station;
- 4) Aeronautical Information Service; and
- 5) Representative from the airlines.

3.4 Contact details of the AOCG members are provided in **Appendix B** to this document.

3.5 The AOCG shall oversee the conduct of the Contingency Plan and in the event that the MAURITIUS AREA CONTROL CENTRE premises are out of service for an extended period, make arrangements for and facilitate the temporary relocation of the MAURITIUS ACC at the *Temporary ACC* and the restoration of ATS services. The terms of reference for the AOCG shall include taking the following actions:

- i) Review and update of the Mauritius Contingency Plan as required;
- ii) Keep up to date at all times of the contingency situation;
- iii) Organize contingency teams in each of the specialized areas;
- iv) Keep in contact with and update the ICAO ESAF Regional Office, operators and the IATA Regional Office;
- v) Exchange up-to-date information with the adjacent ATS authorities concerned to coordinate contingency activities;
- vi) Notify the designated ATM organizations of the contingency situation sufficiently in advance and/or as soon as practical thereafter;
- vii) Notify the designated airline representatives in Mauritius of the contingency situation sufficiently in advance and/or as soon as possible thereafter; and

- viii) Issue NOTAMs according to the corresponding contingency situation related to this plan or as otherwise required. If the situation is foreseeable sufficiently in advance, a NOTAM will be issued at least 48 hours in advance. (Examples of NOTAMs are provided in **Appendix E**)

**Note:** Depending on the elements of the particular circumstances causing a partial or complete disruption of ATS, the DCA may also convene a National Disaster Committee comprising of representatives from different Ministries, Meteorological Services, Police Department including National Coast Guard, Airport Operators, Airlines Representatives, other industry stakeholders to assist in the conduct of this Contingency Plan.

#### **4. CONTINGENCY ROUTE STRUCTURE**

- 4.1 In the event of disruption of air traffic services provided by Mauritius ACC, contingency routes will be introduced to ensure safety of flight and to facilitate limited flight operations commensurate with the prevailing conditions. Existing ATS routes form the basis of the contingency routes to be used, and a flight level assignment scheme shall be introduced to minimize potential points of conflict and to limit the number of aircraft operating simultaneously in the system under reduced air traffic services, including surveillance.
- 4.2 The contingency route structure for international flights is detailed in **Appendix C** to this document. Additional contingency routes will be introduced as and when circumstances require, such as in the case of volcanic ash clouds formation.
- 4.3 In regard to domestic operations, if circumstances dictate, all flights shall be temporarily suspended until a full assessment of the prevailing conditions has been determined and sufficient air traffic services restored. A decision to curtail or restart domestic operations will be made by the AOCG based on the outcome of the assessment.
- 4.4 Aircraft on long-haul international flights and special operations (e.g. Search and Rescue (SAR), State aircraft, humanitarian flights, etc), shall be afforded priority for levels starting from FL290 and above.
- 4.5 International and domestic operators affected by the suspension of all operations from Mauritius will be notified by the relevant airport authority when operations may be resumed, and flight planning information will be made available pertaining to those airports.
- 4.6 International operators may elect to route around the Mauritius FIR if this will satisfy operational requirements of their companies. In such instances, the contingency routes to be used will be provided by States providing air traffic services in the adjacent FIRs concerned.

#### **5. AIR TRAFFIC MANAGEMENT AND CONTINGENCY PROCEDURES**

##### **Reduced ATS and provision of flight information services (FIS)**

- 5.1 During the contingency critical period, air traffic services (ATS), including air traffic control (ATC) may not be available, particularly with regard to availability of



communications and surveillance services. In cases where such services are not available, a NOTAM will be issued by NOTAM OFFICE or adjacent ACCs, providing the relevant information, including an expected date and time of resumption of services. This Contingency Plan provides for limited flight information and alerting services to be provided by adjacent ACCs.

- 5.2 Flight information service (FIS) and flight monitoring will be provided by the designated ATS authorities for the adjacent FIRs on the contingency routes that enter their respective FIRs. A chart depicting the airspace arrangement is provided in **Appendix D** to this document.
- 5.3 The primary means of air-ground communication will be by VHF or HF radio except for aircraft operating automatic dependent surveillance (ADS) and controller/pilot data link communication (CPDLC) systems where this has been established and is fully operational. Where CPDLC has been established, this will become the primary means of communication, with HF as secondary. In the case of ADS automatic position reporting, this will replace voice position reporting and CPDLC and/or HF will become the secondary means of communication.

#### **ATS Responsibilities**

- 5.4 During the early stages of a contingency event, the Mauritius ACC may become overloaded which may require tactical action to be taken in order to re-route aircraft on alternative routes that are not included in this Plan. Alternative routes should be designed by Mauritius ACC to maximize the use of existing ATS route structures and communications, navigation and surveillance (CNS) services.
- 5.5 In the event that ATS cannot be provided in the Mauritius FIR, a NOTAM shall be issued indicating the following, as a minimum requirement:
  - a) Time and date of the beginning of the contingency measures;
  - b) Airspace available for landing and overflying traffic and airspace to be avoided;
  - c) Details of the facilities and services available or not available and any limits on ATS provision (e.g., ACC, APP, TWR and FIS), including an expected date of restoration of services if available;
  - d) Flight level allocation scheme (FLAS) if different from those defined in **Appendix C and D** to this document;
  - e) Information on the provisions made for alternative services;
  - f) Any changes to the ATS contingency routes contained in this Plan;
  - g) Any special procedures to be followed by neighbouring ATS units not covered by this Plan;
  - h) Any special procedures to be followed by pilots; and

- i) Any other details with respect to the disruption and actions being taken that aircraft operators may find useful.
- 5.6 In the event that the Mauritius International NOTAM Office is unable to issue the NOTAM, the (alternate) International NOTAM Office of adjacent FIRS listed at para 2 will take action to issue the NOTAM pertaining to the closure of airspace upon notification by the DCA Mauritius or its designated authority, for e.g. ICAO ESAF Regional Office. Sample NOTAMs are at **Appendix E** to this Contingency Plan.

### **Aircraft Separation**

- 5.7 Aircraft separation criteria will be applied in accordance with the *Procedures for Air Navigation Services-Air Traffic Management* (PANS-ATM, Doc 4444) and the *Regional Supplementary Procedures* (Doc 7030).
- 5.8 The minimum longitudinal separation applicable will be **15 minutes**.
- 5.9 The route structure provides for a minimum lateral separation of 100 nautical miles. In cases where this is less, and for crossing routes, a minimum vertical separation of 2000 ft shall be applied between all aircraft transiting the Mauritius FIR.
- 5.10 In the event that Mauritius ATC services are terminated, RVSM operations will be suspended and 2000 ft vertical separation minimum will be provided within Mauritius airspace using the RVSM flight levels.

### **Flight level restrictions**

- 5.11 Where possible, aircraft on long-haul international flights shall be given priority with respect to the assignment of cruising levels.

### **Operational restrictions**

- 5.12 VFR flights shall not operate in the Mauritius FIR if there are extensive disruptions to ATS facilities, except in special cases such as State aircraft, medivac flights, and any other essential flights authorized by AOCG.
- 5.13 IFR General Aviation flights will receive a lower priority than all other flights and may be suspended depending on circumstances.
- 5.14 IFR commercial flights will receive a high priority together with State and medivac flights.

### **Other measures**

- 5.15 Other measures related to the limited availability of airspace and the implementation of the contingency scheme within the Mauritius FIR may be taken as follows:
- 1) Suspension of all VFR operations;
  - 2) Delay or suspension of general aviation IFR operations; and
  - 3) Delay or suspension of commercial IFR operations.

### **Aircraft position reporting**

- 5.16 Pilots will continue to make routine position reports in line with normal ATC reporting

procedures. Pilots shall also use the IFBP VHF frequency 126.9 MHz when making routine position reports.

### **Procedures to be followed by Mauritius ACC and adjacent ATS Units**

- 5.17 The ATS units providing ATC services and adjacent ATS units will follow their emergency operating procedures and activate the appropriate level of contingency procedures in line with operational *Letters of Agreement*. These procedures shall include the following:
- a) The MAURITIUS ACC, on determining that air traffic services may be reduced due to a contingency event, will inform pilots accordingly. In the event of incapacitation of the operations room/building, the appropriate emergency procedures will apply and time permitting, controllers will make an emergency evacuation transmission on the radio frequency or frequencies in use providing pilots with alternate means of communication;
  - b) During the period when the contingency procedures are in effect, flight plan messages must continue to be transmitted by operators to the Mauritius ACC via the AFTN using normal procedures;
  - c) On notification of a contingency situation by MAURITIUS, ICAO or the appropriate alternate authority of an adjacent FIR, the ATS authorities operating the ACCs of the adjacent FIRs will activate the contingency procedures in accordance with their respective *Letters of Agreement*;
  - d) Prior to entry to the Mauritius FIR under the contingency arrangement, prior authorization must be obtained by operators to overfly the Mauritius FIR, and ATC approval granted by the adjacent ATC authority (ACC);
  - e) The adjacent ACCs responsible for aircraft entering and transiting the Mauritius FIR must communicate to the concerned ATS units not less than 30 minutes beforehand, the estimated time over the Mauritius FIR boundary entry points;
  - f) The adjacent ACCs responsible for aircraft entering the Mauritius FIR will instruct pilots to maintain the last flight level assigned and speed (Mach number technique if applicable) or as per flight level scheme allocation in force while overflying the Mauritius FIR;
  - g) The adjacent ACCs responsible for aircraft entering the Mauritius FIR will not authorize any change in flight level or speed (Mach number technique, if applicable) later than **10 minutes** before the aircraft enters the Mauritius FIR, except in the case specified in (h) below;
  - h) The adjacent ACCs responsible for aircraft entering the Mauritius FIR will inform all aircraft, prior to entering the Mauritius FIR, that they must communicate with the next (downstream) ATC unit at least **30 minutes** before the estimated time over the Mauritius FIR boundary exit points, or as may be agreed by the accepting ATS unit downstream; and
  - i) Operators may also choose to route around the Mauritius FIR, and the controlling authorities of the neighbouring FIRs concerned will provide alternative contingency routes as appropriate.

**Note:** ATS units should recognize that when closures of airspace or airports are promulgated, individual airlines might have different company requirements regarding alternative routing arrangements. ATS units should endeavour to accommodate such requests within the confines of safety rules and procedures.

### **Transition to contingency scheme**

- 5.18 During times of uncertainty (*severe weather, volcanic ash, reported seismic activity, etc*) when airspace closure seems most likely, aircraft operators should be prepared for a possible change in routing while en-route, familiarization with the alternative routes outlined in this Contingency Plan, as well as those which may be promulgated by Mauritius via NOTAM or other form of aeronautical information.
- 5.19 In the event of airspace closure that has not been promulgated, Mauritius ACC and adjacent ATS units should, to the extent possible, broadcast to all aircraft under their jurisdiction, what airspace is being closed and to standby for further instructions.
- 5.20 ATS providers should recognize that when closure of airspaces or airports is promulgated, individual airlines might have different company requirements as to their alternative routings. ATS providers should be alert to respond to such requests by aircraft and react commensurate with safety.
- 5.21 If circumstances lead to the closure of the Mauritius FIR and no contingency routes are available throughout that FIR, aircraft will be required to route around the Mauritius FIR. As much warning as possible will be provided by AOCG in the event of the complete closure of Mauritius FIR.

### **Adjustment of Coordination Requirements/Review of LOAs**

- 5.22 AOCG and adjacent ATS providers concerned will review the effectiveness of current coordination requirements and procedures in light of contingency operations or airspace closure, and make any necessary adjustments to the Mauritius Contingency Plan/LOAs.

## **6. TRANSFER OF CONTROL AND COORDINATION OF TRAFFIC**

- 6.1 The transfer of control and communication should be at the common FIR boundary between Mauritius and its neighbouring States, unless there is mutual agreement between them. ATS providers should review current coordination requirements in light of contingency operations or notification at short notice of airspace closure.
- 6.2 The ATS providers concerned should review the effectiveness of current coordination requirements and procedures in light of contingency operations or short notice of airspace closure, and make any necessary adjustments to the Contingency Plan and LOAs.

## **7. PUBLIC HEALTH EMERGENCIES**

- 7.1 In the event of a Public Health Emergency, such as disease outbreak, ATC should verify procedures to be followed related to the specific emergency as provided by the Ministry of Health and Quality of Life and should advise the operators as soon as practicable.

- 7.2 ATC should also ensure that contact details relating to the Focal Points of Contact for specific outbreaks are updated regularly.
- 7.3 Should a Public Health Emergency necessitate the closure of the Mauritius FIR and its aerodromes, then specific procedures to be followed will be published by NOTAM.

## **8. VOLCANIC ASH CONTINGENCY PLAN (VACP)**

- 8.1 In the event of volcanic ash activity affecting the whole or part of the Mauritius FIR, detailed contingency arrangements specifically related to volcanic ash are contained in **Appendix G** to this document, in addition to ATS and Public Health Emergency procedures already stipulated herein.

## **9. PILOT AND OPERATOR PROCEDURES**

### **Filing of flight plans**

- 9.1 Flight planning requirements for the Mauritius FIR are to be followed in respect to normal flight planning requirements contained in the Mauritius Aeronautical Information Publication (AIP) and as detailed in ICAO Annex 2 Chapter 3 and Doc. 4444 Chapter 4 para. 4.4

### **Overflight approval**

- 9.2 In a contingency situation, flights may be re-routed at short notice and it may not be possible for operators to give the required advance notice in a timely manner to obtain overflight approval. However, the current requirements and procedures for overflight approval of the Mauritius FIR shall continue to be applicable.
- 9.3 With regard to other FIRs, aircraft operators are to obtain overflight approval from States responsible for such airspaces in accordance with the procedures and requirements of such States.
- 9.4 Coordination for special arrangements to expedite flight approvals for aircraft transiting the Mauritius FIR in a contingency situation may be coordinated with AOCG and adjacent ATS units on a case by case basis, as addressed in the *Letters of Agreement*. Aircraft operators should note however that overflight approval remains the responsibility of the State whose territory is to be overflown.

### **Pilot operating procedures**

- 9.5 Aircraft overflying the Mauritius FIR shall follow the following procedures:
- a) All aircraft proceeding along the ATS routes established in this Contingency Plan will comply with the instrument flight rules (IFR) and will be assigned a flight level in accordance with the flight level allocation scheme (FLAS) applicable to the route(s) being flown as specified in **Appendix C** to this document;
  - b) Flights are to file flight plans using the Contingency Routes specified in **Appendix C** to this document, according to their airport of origin, routing and destination;

- c) Aircraft are to operate as close as possible to the centre line of the assigned contingency route;
- d) Pilots are to keep a continuous watch on the specified contingency radio frequencies as specified in the *Letters of Agreement* and transmit position information and estimates in accordance with normal ATC position reporting procedures using the English language;
- e) Pilots are to maintain during their entire flight time within Mauritius FIR, the flight level last assigned by the last ACC or ATS unit responsible for the provision of ATC service, prior to the aircraft entering the Mauritius FIR. In the event that the last assigned flight level does not correspond to the flight level allocation scheme (FLAS) applicable to the Mauritius Contingency Plan, the pilot should establish contact with the ATS unit responsible for the provision of service to clarify, and if unable, shall adjust to the FLAS as soon as possible once in the contingency airspace. The pilot shall under no circumstances, change this level and Mach number, except in cases of emergency and for flight safety reasons. In addition, the last SSR transponder assigned shall be maintained or, if no transponder has been assigned, transmit on SSR code 2000;
- f) Aircraft are to reach the flight level last assigned by the responsible ACC at least **10 minutes** before entering the Mauritius FIR or as otherwise instructed by the appropriate ATC unit in accordance with the *Letters of Agreement*;
- g) Pilots are to include in their last position report prior to entering the Mauritius FIR, the estimated time over the entry point of the Mauritius FIR and the estimated time of arrival over the relevant exit points of the Mauritius FIR;
- h) Pilots are to contact the next adjacent ACC as soon as possible, and at the latest **10 minutes** before the estimated time of arrival over the FIR boundary exit points of the Mauritius FIR;
- i) Whenever in-flight emergencies and/or flight safety reasons make it impossible to maintain the flight level assigned for transit of Mauritius FIR, pilots are to climb or descend well to the right of the centerline of the contingency route, and if deviating outside the Mauritius FIR, to immediately inform the ACC responsible for that airspace. Pilots are to make blind transmissions on 121.5 MHz and 126.9 MHz of the relevant emergency level change message, indicating the aircraft call sign, the aircraft position, the flight levels being vacated and crossed, etc.;
- j) Recognizant of the fact that not all operational circumstances can be addressed by this Contingency Plan, pilots are to maintain a high level of alertness when operating in the Mauritius contingency airspace and take appropriate action to ensure safety of flight; and
- k) Pilots should maintain continuous listening watch on VHF emergency frequency 121.5 MHz and IFBP frequency 126.9 MHz at all times when operating in the Mauritius contingency airspace.

## **Public Health Emergency**

- 9.6 In the event of a Public Health Emergency, such as disease outbreak, pilots should follow instructions provided by Mauritius ACC, or as published through NOTAMs related to Mauritius airspace and aerodromes.

## **Volcanic Ash Contingency Plan**

- 9.7 In the event of volcanic ash activity affecting the whole or part of the Mauritius FIR, pilots should follow instructions from Mauritius ACC or as published by NOTAMs related to Mauritius airspace. Detailed contingency arrangements specifically related to volcanic ash are contained in **Appendix G** to this document.

## **10. COMMUNICATION PROCEDURES**

### **Procedures for Reduced/Loss of Radio Communication**

- 10.1 When operating within the contingency airspace of Mauritius FIR, pilots should use normal radio communication procedures where ATS services are available or as otherwise notified by NOTAM.
- 10.2 If communication is lost on the normal ATS frequencies allocated, pilots should try the next applicable frequency, e.g. if en-route contact is lost then try the next appropriate handover frequency. It should be expected that loss of communication may be temporary. As such, if following the loss of communication pilots are still unable to establish two-way radio communication on other frequencies, pilots should consider periodic attempts on the frequency on which two-way radio communication was lost. In any case, in the absence of two-way communication with ATC, pilots should continue to make routine position reports on the appropriate frequencies, and broadcast positions on the specified contingency frequencies.

### **Communication frequencies**

- 10.3 A list of frequencies to be used for the contingency routes and the ATS units providing flight information service (FIS) and air-ground communication monitoring for the Mauritius FIR is detailed at **Appendix F** to this document.

## **11. AERONAUTICAL INFORMATION SUPPORT SERVICES**

### **Aeronautical Information Services (AIS)**

- 11.1 NOTAM services will be used optimally to mitigate against loss of radio and other forms of communication in Mauritius FIR. NOTAMs will be used as necessary to support coordination and operational procedures that would be established before, during and after any contingency phase.
- 11.2 In the event of unavailability of AIS services for Mauritius, NOTAM services will be provided by neighboring AIS authorities in accordance with *Letters of Agreement*.

### **Meteorological Services (MET)**

- 11.3 It is expected that the Mauritius MET services would continue to be available in the event of an ATS contingency situation. However, should ATS services for the Mauritius FIR be

withdrawn, timely MET information may not be immediately available to aircraft in flight. Alternative means of obtaining up to date MET information concerning the Mauritius FIR will be provided to the extent possible through the adjacent ATS authorities.

## **12. SEARCH AND RESCUE**

### **Notification and Coordination**

12.1 ACCs involved in this Contingency Plan are required to assist as necessary to ensure that the proper Search and Rescue (SAR) authorities are provided with the information necessary to support downed aircraft or aircraft with an in-flight emergency within Mauritius FIR.

12.2 The SAR Agency responsible for the Mauritius FIR is the Maritime Rescue Coordination Centre (MRCC).

**Tel: (230) 208 3935 and (230) 208 8317**

**Fax: (230) 212 2757 and (230) 2122770**

**INMARSAT C Telex No: 464590210**

12.3 Each ACC shall assist as necessary in the dissemination of INCERFA, ALERFA and DETRESFA in respect to incidents within the Mauritius FIR.

## **13. RESPONSIBILITY OF THE ACCREDITED ICAO REGIONAL OFFICE (ESAF)**

13.1 The ICAO ESAF Regional Office which is accredited to the State of Mauritius will:

- a. Closely monitor the situation and coordinate with all affected States and organizations including the IATA Regional Office, so as to ensure the continuity of air navigation and the provision of air navigation services to international air traffic in the AFI Region area of accreditation;
- b. Note any incidents reported and provide support in taking appropriate action;
- c. Provide assistance as necessary on any issues with the Civil Aviation Administrations involved with and supporting the Mauritius Contingency Plan; and
- d. Keep the President of the Council of ICAO, the Secretary General, Director Air Navigation Bureau, and Chief Air Traffic Management in Montreal continuously informed on developments, including activation and termination of the Mauritius Contingency Plan.



## APPENDIX A

### Contact details for all concerned States, IATA and accredited ICAO Regional Office

SN	Adjacent ACC	Telephone	FAX
(a)	Australia Melbourne FIR (ACC)	+61-3-9235-7420 +61-3-9235-7492	+61-3-9235-2744
(b)	Maldives Maldives FIR (ACC)	+960-332-2071	+960-331-3258
(c)	India Mumbai FIR (ACC)	+91-22-26828222	+91-22-26828341
(d)	Seychelles Seychelles FIR(ACC)	+248-37-4051	+248-38-4032
(e)	Madagascar Antananarivo FIR (ACC)	+261-202-258125	+261-202-258115 Office hours, Weekdays
(f)	France Reunion TMA (APP/ACC)	+262-262-728971	+262-262-728815
(g)	South Africa Johannesburg (OCC)	+27-11-928-6456	+27-11-9286-576

State/ Organization	Point of contact	Telephone	E-mail
IATA	Tanja Grobotek	Tel: +271 15232714	grobotek@iata.org
ICAO	Mr. BM. Kashambo Regional Director	Tel: +254 20 762 23954 Fax: +254 20 762 1092	BKashambo@icao.int
	Mr. PB Zo'0 Minto'o Deputy Regional Director	Tel: +254 20 762 237067 Fax: +254 20 762 1092	PZoomintoo@icao.int
	Mr. S M Machobane, RO ATM/SAR	Tel: +254 20 762 2372 Fax: +254 20 762 1092	SMachobane@icao.int
	Mr. D Labrosse RO ATM/SAR	Tel: +254 20 762 2368 Fax: +254 20 762 1092	Dlabrosse@icao.int

## APPENDIX B

### Contact details of the AOCG members

<b>State/ Organization</b>	<b>Point of contact</b>	<b>Telephone</b>	<b>E-mail</b>
Mauritius ATM	Mr R D Servansingh <i>DDCA</i>	Tel: +23052550992	rservansingh@govmu.org
Mauritius ATM	Mr R Sewraj <i>DH ATM</i>	Tel: +23052540157	rsewraj@govmu.org
Mauritius CNS	Mr R Annauth <i>DH CNS</i>	Tel: +23054980625	rannauth@govmu.org
Mauritius Aeronautical Meteorology	Officer-in-Charge	Tel: +2306373638	metplaisance@gmail.com
Mauritius Aeronautical Information Office	Mr A D Sookdeb <i>AIS Supervisor</i>	Tel: +23059407896	ais@govmu.org
Airline Representative			

## APPENDIX C

### Contingency route structure during partial or total unavailability of the Mauritius FIR

<b>Present ATS Route</b>	<b>Contingency Route Number</b>	<b>Contingency Routings</b>	<b>FLAS</b>	<b>Minimum Longitudinal Separation</b>	<b>FIRs Involved</b>
N633 & UA401F	<b>CR1</b>	PEDPI-N633- PLS-UA401F- SOBAT	Eastbound FL 350 /390  Westbound FL 320 /380 /400	15 minutes	YMMM/FIMM/FMEE
UG595F & UM665F	<b>CR2</b>	MABAD- UG595F-PLS- UM665F- AMBOD-	Eastbound FL 330/370  Westbound FL 300/340	15 minutes	YMMM/FIMM/FMMM
R348	<b>CR3</b>	LATEP - R348- RUPIG	Eastbound FL 350/390  Westbound FL 360/380/400	15 minutes	YMMM/FIMM/FMMM
G451	<b>CR4</b>	SUNKI –G451 - RAXES	Eastbound FL 350/390  Westbound FL 360/380/400	15 minutes	YMMM/FIMM/FAJO



## APPENDIX E

### SAMPLE NOTAM

**a) Avoidance of airspace**

NOTAM.....DUE TO DISRUPTION OF ATS IN THE MAURITIUS FIR ALL ACFT ARE ADVISED TO AVOID THE FIR.

**b) Airspace available limited ATS**

NOTAM .....DUE TO ANTICIPATED DISRUPTION OF ATS IN THE MAURITIUS FIR ALL ACFT ARE ADVISED THAT THERE WILL BE LIMITED ATS. PILOTS MAY EXPERIENCE DLA AND OVERFLIGHTS MAY CONSIDER AVOIDING THE AIRSPACE.

**c) Contingency plan activated**

NOTAM .....DUE TO DISRUPTION OF ATS IN MAURITIUS FIR ALL ACFT ARE ADVISED THAT THE MAURITIUS INTERNATIONAL CONTINGENCY PLAN FOR ACFT INTENDING TO OVERFLY THE MAURITIUS FIR IS IN EFFECT. ALL FLIGHTS SHALL COMPLY WITH THE REQUIREMENT TO SELECT SPECIFIC CONTINGENCY ROUTES AND FLIGHT LEVELS APPLICABLE TO THE CONTINGENCY ROUTES AS DETAILED HERE BELOW.

- A) CR1 N633/UA401F PEDPI-PAKTI-PADSO-OVTIS-PLS-SOBAT  
EASTBOUND FL350/390  
WESTBOUND FL320/380/400
- B) CR2 UG595F/UM665F MABAD-AVDOV-PLS-AMBOD  
EASTBOUND FL330/370  
WESTBOUND FL300/340
- C) CR3 R348 LATEP-NOMIG-LUXAG-EGLET-RUPIG  
EASTBOUND FL350/390  
WESTBOUND FL360/380/400
- D) CR4 G451 SUNKI-UPNEK-RAXES  
EASTBOUND FL350/390  
WESTBOUND FL360/380/400

ADJACENT AREA CONTROL CENTRES OF MELBOURNE, ANTANANARIVO AND REUNION WILL ALLOCATE ONLY THE CONTINGENCY ROUTES AND FLIGHT LEVELS SPECIFIED AS FOLLOWS: ONLY APPROVED INTERNATIONAL FLIGHTS ARE PERMITTED TO OVERFLY MAURITIUS AIRSPACE. PILOTS WHO HAVE BEEN ASSIGNED WITH A FLIGHT LEVEL NOT IN ACCORDANCE WITH THE FLAS, SHOULD TRY TO ESTABLISH CONTACT WITH THE ATS UNIT RESPONSIBLE FOR THE PROVISION OF SERVICE TO CLARIFY, AND IF UNABLE, ADJUST TO THE FL AS SOON AS POSSIBLE ONCE IN THE CONTINGENCY AIRSPACE. MINIMUM LONGITUDINAL SEPARATION APPLICABLE IS 15 MINUTES.

**d) Non adherence to the Contingency Plan**

NOTAM .....OPERATORS NOT ABLE TO ADHERE TO THE CONTINGENCY PLAN SHALL AVOID THE MAURITIUS FIR.

## APPENDIX F

### LIST OF FREQUENCIES TO BE USED

1. A list of frequencies to be used for the contingency routes and the ATS units providing flight information service (FIS) and air-ground communication monitoring for the Mauritius FIR is as follows:

#### **Mauritius ACC**

- a) Day: HF 8879, 5634 and 13306 kHz
- b) Night: HF 3476 or 5634 kHz

2. In the event of these frequencies are not being available, aircraft are to contact ANTANANARIVO Control on the following frequencies:

#### **ANTANANARIVO ACC**

- a) Day: HF 8879 kHz, 5634 kHz
- b) Night: HF 5634 kHz or 3476 kHz,

## Appendix G

### VOLCANIC ASH CONTINGENCY PLAN (VACP)

Within Indian Ocean Region there are areas of volcanic activities which are likely to affect flight in the Region. The major volcanoes in the region are located in the following States: Comoros Island, France (Reunion Island) and Madagascar.

This Volcanic Ash Contingency Plan sets out standardised guidelines and procedures for the provision of information to airlines and en-route aircraft before and during a volcanic eruption. Volcanic contamination, of which volcanic ash is the most serious, is a hazard for safe flight operations. Mitigating the hazards posed by volcanic ash in the atmosphere and/or at the aerodrome cannot be resolved in isolation but through collaborative decision-making (CDM) involving all stakeholders concerned. During an eruption volcanic contamination can reach and exceed the cruising altitudes of turbine-powered aircraft within minutes and spread over vast geographical areas within a few days.

Some aircraft types or engine technologies are more vulnerable to volcanic contaminants than others; therefore, any specific mitigation measures to be applied would have to take into account these variances. Considering that a commercial aircraft will travel about 150 km (80 NM) in 10 minutes and that volcanic ash can rise to flight levels commonly used by turbine-engine aeroplanes in half that time, a timely response to volcanic eruptions and volcanic ash in the atmosphere is essential.

#### 1. PHASES OF AN EVENT

1.1 The response to a volcanic event that affects air traffic has been divided into four distinct phases in this document - Pre-Eruption Phase, a Start of Eruption Phase, an On-going Eruption Phase, and a Recovery Phase- as follows:

1. **PRE-ERUPTION PHASE** (when applicable): The initial response, “raising the alert”, commences when a volcanic eruption is expected.

Appropriate AIS (NOTAM) and MET (VA SIGMET) messages may be issued in accordance with Annex 15 and Annex 3 respectively, and disseminated to affected aircraft in flight by the most expeditious means. It should be noted that, sometimes volcanoes erupt unexpectedly without any alert being raised, hence the pre-eruption phase may be omitted.

2. **START OF ERUPTION PHASE** (when applicable): The start of eruption phase commences at the outbreak of the volcanic eruption and entrance of the volcanic ash into the atmosphere and mainly pertains to aircraft in flight. Appropriate AIS (NOTAM: ASHTAM) and MET (VA SIGMET) messages may be issued as appropriate in accordance with Annex 15 and Annex 3 respectively, and a danger area may be declared by NOTAM. Normally, clearances will not be issued through the danger area unless explicitly requested by the flight crew.

3. **ONGOING ERUPTION PHASE**: The ongoing eruption phase commences with the issuance of the first volcanic ash advisory (VAA) containing information on the extent and movement of the volcanic ash cloud following completion of the previous reactive responses. Appropriate AIS (NOTAM: ASHTAM) and MET (VA SIGMET) messages may be issued as appropriate in accordance with Annex 15 and Annex 3 respectively.

4. **RECOVERY PHASE:** The recovery phase commences with the issuance of the first VAA containing a statement that “NO VA EXP” (i.e. “No Volcanic Ash Expected”) which normally occurs when it is determined that no volcanic activity has reverted to its pre-eruption state.

## 2. PRE-ERUPTION PHASE

### 2.1 Mauritius Area Control Centre (ACC) Actions (eruption in its own flight information region (FIR))

2.1.1 In the event of significant pre-eruption volcanic activity, which could pose a hazard to aviation, Mauritius area control centre (ACC), on receiving information of such an occurrence, should carry out the following:

- i. Ensure that appropriate AIS messages are originated in accordance with Annex 15. These must provide as precise information as is available regarding the activity of the volcano. It is imperative that this information is issued by the international NOTAM office and disseminated as soon as possible in accordance with the provisions of Annex 15;
- ii. When so required by the State, define an initial, precautionary danger area in accordance with established procedures. The size of the danger area should encompass a volume of airspace in accordance with the information available, aiming to avoid undue disruption of flight operations. The danger area should be defined as a circle with a radius of 222 km (120 NM). The circle should be centred on the estimated or known location of the volcanic activity;
- iii. Although ATC would not normally initiate a clearance through a danger area, it will inform aircraft about the potential hazard and continue to provide normal services. It is the responsibility of the pilot-in-command to determine the safest course of action;
- iv. Advise the associated Meteorological Watch Office (MWO) and the appropriate Volcanic Ash Advisory Centre (VAAC) (unless the initial notification originated from such provider(s)), who will then inform the appropriate Air Traffic Management (ATM) units;
- v. Alert flights already within the area concerned and offer assistance to enable aircraft to exit the area in the most expeditious and appropriate manner. Flight crews should be provided with all necessary information required to make safe and efficient decisions in dealing with the hazards in the defined area. Flights which would be expected to penetrate the area should be re-cleared onto routes that will keep them clear; and
- vi. Immediately notify other affected ACCs of the event and the location and dimensions of the area concerned. The ACC should also negotiate any re-routings necessary for flights already coordinated but still within adjacent flight information regions (FIRs) and provide any information on potential implications on traffic flow and its capability to handle the expected traffic. It is also expected that adjacent ACCs will be asked to reroute flights not yet coordinated to keep them clear of the area. It should be noted that flight crews may take the decision not to completely avoid the area based on, for example, visual observations.



## **2.2 Adjacent ACC Actions**

2.2.1 During the Alerting Phase aircraft will be tactically rerouted to avoid the danger zone. As this phase will only last for a short period, any ash cloud would be contained within a limited area and disruption to traffic should not be excessive. Adjacent ACCs should take the following action to assist:

- a) When advised, re-clear flights which will be affected by the danger zone but are still under their control.
- b) Unless otherwise instructed, continue normal operations except:
  - i) if one or more routes are affected by the danger zone, stop clearing aircraft on these routes and take steps to reroute onto routes clear of the area; and
  - ii) initiate a running plot of the affected area.

## **3. START OF ERUPTION PHASE**

### **3.1 General**

3.1.1 This phase commences at the outbreak of volcanic eruption with volcanic ash being ejected into the atmosphere. The focus of the processes in this phase is to protect aircraft in flight and at aerodromes from the hazards of the eruption through the collection and use of relevant information.

3.1.2 In addition to relevant actions described under the pre-eruption phase, major activities of the start of eruption phase are: Issuance of an eruption commenced VA SIGMET; eruption commenced NOTAM/ASHTAM; as well as provision of information and assistance to airborne traffic. As appropriate, danger areas will be declared via NOTAM. This phase will last until such time as the on-going eruption phase can be activated.

### **3.2 Mauritius ACC Actions (*eruption in its own FIR*)**

3.2.1 The ACC should inform flights about the existence, extent and forecast movement of volcanic ash and provide information useful for the safe and efficient conduct of flights.

3.2.2 If necessary, rerouting of traffic should commence immediately or may be in progress if the alerting time has been sufficient to facilitate activation of the pre-eruption phase. The ACC should assist in rerouting aircraft around the danger area as expeditiously as possible. Adjacent ACCs should also take the danger area into account and give similar assistance to aircraft as early as possible.

3.2.3 During the start of eruption phase, although ATC will not normally initiate a clearance through a danger area, it will inform aircraft about the hazard and will continue to provide normal services. It is expected that aircraft will attempt to remain clear of the danger area; however, it is the responsibility of the pilot-in-command to determine the safest course of action.

3.2.4 During the start of eruption phase the ACC should:

- a) ensure a NOTAM is originated to define a danger area delineated cautiously so as to encompass a volume of airspace in accordance with the limited information

available. In determining the area, information on upper winds should be taken into account, if available. The purpose is to ensure safety of flight in the absence of any prediction from a competent authority of the extent of contamination;

- b) maintain close liaison with MET facilities (its associated MWO and the AFI VAAC, Toulouse), who should issue appropriate MET messages (“start of eruption” SIGMET message by the most expeditious means) in accordance with Annex 3;
- c) devise and update measures when necessary to ensure safety of flight operations, based on these forecasts and in cooperation with aircraft operators and the adjacent ACCs using the CDM process;
- d) ensure that reported differences between published information and observations (pilot reports, airborne measurements, etc.) are forwarded as soon as possible to the appropriate authorities to ensure its dissemination to all concerned;
- e) begin planning for the on-going eruption phase in conjunction with the aircraft operators, the appropriate ACCs concerned; and
- f) issue appropriate AIS messages in accordance with Annex 15, should significant reductions in intensity of volcanic activity take place during this phase and the airspace no longer is contaminated by volcanic ash. Otherwise, begin CDM planning for the on-going eruption phase in conjunction with aircraft operators, the appropriate ATM unit and the affected ACCs.

### **3.3 Adjacent ACC Actions**

3.3.1 During the start of eruption phase adjacent ACCs should take the following actions:

- a) maintain close liaison with the appropriate ATM unit and the originating ACC to design, implement and keep up to date ATM/ACC measures which will enable aircraft to ensure safety of flight operations;
- b) the adjacent ACC, in cooperation with the originating ACC and aircraft operators, should impose as required additional tactical measures to those issued by the appropriate ATM unit;
- c) maintain awareness of the affected area; and
- d) begin planning for the on-going eruption phase in conjunction with the aircraft operators, the appropriate ATM unit and the ACCs concerned.

### **3.4 ATM Actions**

3.4.1 During the start of eruption phase, depending on the impact and/or extent of the volcanic ash, the appropriate ATM unit should organise the exchange of latest information on the developments with the associated VAACs, ANSPs, MWOs and operators concerned in order to support CDM.

#### **4. ONGOING ERUPTION PHASE**

4.1 The on-going eruption phase commences with the issuance of the first volcanic ash advisory (VAA) by the Toulouse VAAC which contains information on the extent and movement of the volcanic ash cloud in accordance with Annex 3 provisions.

*Note.* — *Volcanic ash advisory information in graphical format (VAG) may also be issued by the VAAC, containing the same information as its text-based VAA equivalent.*

4.2 The VAA/VAG should be used to prepare appropriate AIS and MET messages in accordance with Annex 15 and Annex 3 provisions respectively, and plan and apply appropriate ATM measures.

4.3 The volcanic contamination may affect any combination of airspace; therefore, it is not possible to prescribe measures to be taken for all situations. Furthermore, if not possible to detail the actions to be taken by Mauritius ACC, the following guidance therefore may prove useful during the on-going eruption phase but should not be considered mandatory or exhaustive:

- a) Mauritius ACC affected by the movement of the volcanic ash should ensure that appropriate AIS messages are originated in accordance with Annex 15. The ATM unit should continue to publish details on measures taken to ensure dissemination to all concerned;
- b) depending on the impact and/or extent of the volcanic ash, the ACC should take the initiative to organise teleconferences to exchange latest information on the developments, in order to support CDM, with the VAACs, ANSPs and MWOs and operators concerned;
- c) ACC should be aware that for the purpose of flight planning, operators could treat the horizontal and vertical extent of the volcanic ash contaminated area to be over-flown as if it were mountainous terrain; and
- d) any reported differences between published information and observations (pilot reports, airborne measurements, etc) should be forwarded as soon as possible to MWO, VAAC, AIS/NOF.

#### **5. RECOVERY PHASE**

5.1 The recovery phase commences with the issuance of the first VAA/VAG containing a statement that “NO VA EXP” (i.e. no volcanic ash expected”) - which normally occurs when it is determined that the volcanic activity has reverted to its pre-eruption state and the airspace is no longer affected by volcanic ash contamination. Consequently, appropriate AIS messages (i.e. NOTAMC cancelling the active NOTAM, and a new NOTAM/ASHTAM) should be issued in accordance with Annex 15.

5.2 The ACC and ATM unit should revert to normal operations as soon as practical.

#### **6. AIR TRAFFIC CONTROL PROCEDURES**

6.1 If volcanic ash cloud is reported or forecasted in the FIR for which the ATS unit is responsible, the following actions should be taken:

- a) relay all pertinent information immediately to flight crews whose aircraft could be affected to ensure that they are aware of the ash cloud's position and levels affected;
- b) request the intention of the flight crew and endeavour to accommodate requests for re-routing or level changes;
- c) suggest appropriate re-routing to the flight crew to avoid an area of reported or forecast ash clouds; and
- d) request a special air-report when the route of flight takes the aircraft into or near the forecast ash cloud and provide such special air-report to the appropriate agencies.

6.2 When advised by the flight crew that the aircraft has inadvertently entered a volcanic ash cloud, the ATS unit should:

- a) take such action applicable to an aircraft in an emergency situation; and
- b) not initiate modifications of route or level assigned unless requested by the flight crew or necessitated by airspace requirements or traffic conditions.

## 1 SIGMET

180105

FIMP SIGMET 2 VALID 180105/180705FIMM

FIMM OCEANIC FIR VA ERUPTION VOLCANO NAME PSN S..... E.... VA CLD  
OBS AT 0100Z S..... E..... - S..... E..... - S..... E..... - S..... E..... FL200/350 MOV  
SE 35KT FCST 0705Z VA CLD APRX S..... E..... - S.... E..... - S..... E..... - S.....  
E.... - S..... E.....

## 2 NOTAM alerting pre-eruptive activity

(A0025/16 NOTAMN

Q) FIMM/QWWXX/IV/NBO/W/000/999/2225S05740EXXX

A) FIMM B) 1602260830 C) 1602261100 E) INCREASED VOLCANIC ACTIVITY,  
POSSIBLY INDICATING IMMINENT ERUPTION, REPORTED FOR VOLCANO  
NAME PSN .....S .....E . VOLCANIC ASHCLOUD IS EXPECTED TO REACH  
50,000 FEET FEW MINUTES FROM START OF ERUPTION. AIRCRAFT ARE  
REQUIRED TO FLIGHT PLAN TO REMAIN AT LEAST XXX NM CLEAR OF  
VOLCANO AND MAINTAIN WATCH FOR NOTAM/SIGMET FOR AREA.

F) GND G) UNL)

## 3 NOTAM establishing Danger Area after initial eruption

(A0026/16 NOTAMR A0025/16

Q) FIMM/QWWXX/IV/NBO/W/000/999/2025S05740EXXX

A) FIMM

B) 1602260900 C) 1602261200

E) VOLCANIC ERUPTION REPORTED IN VOLCANO NAME PSN .....S .....E .  
VOLCANIC ASHCLOUD REPORTED REACHING FL500. AIRCRAFT ARE  
REQUIRED TO REMAIN AT LEAST 120 NM CLEAR OF VOLCANO AND  
MAINTAIN WATCH FOR NOTAM/SIGMET FOR BIRD AREA.

F) GND G) UNL)

## 4 NOTAM establishing Danger Area to include Area of High [or High/Medium or High/Medium/Low] Contamination

(A0027/16 NOTAMN

Q) FIMM/QWWXX/IV/NBO/AE/000/350

A) FIMM B) 1602261300 C) 1602260500

E) TEMPORARY DANGER AREA HAS BEEN ESTABLISHED FOR VOLCANIC  
ASH AREA OF HIGH CONTAMINATION IN AREA BOUNDED BY FOLL COORD  
.....S .....E

.....S .....E

.....S .....E

.....S .....E

F) SFC

G) FL350)

**5 NOTAM to define Area of Medium Contamination for which a Danger Area has not been established**

(A0028/16 NOTAMN

Q) FIMM/QWWXX/IV/AE/000/200

A) FIMM B) 1602070030 C) 1602130600

E) VOLCANIC ASH AREA OF MEDIUM CONTAMINATION FORECAST IN AREA BOUNDED BY FOLL COORD

.....S .....E

.....S .....E

.....S .....E

.....S .....E

F) SFC G) FL200)

**6 ASHTAM alerting pre-eruptive activity**

VALI0021 FIMM 01091410

ASHTAM 005/10

A) FIMM B) 1601091350 C) VOLCANO NAME D) 3744S01500E

E) YELLOW ALERT

J) VULCANOLOGICAL AGENCY

**7 ASHTAM alerting eruptive activity**

VALI0024 FIMM 01151800

ASHTAM 015/10

A) FIMM FIR B) 1601151650 C) VOLCANO NAME D) 3744S05750E

E) RED ALERT F) AREA AFFECTED 3700S05750E 3900S05750E 3800S070700E  
SFC/35000FT G) NE H) ROUTES AFFECTED WILL BE NOTIFIED BY ATC J)  
VULCANOLOGICAL AGENCY

**8 ASHTAM alerting reduction in eruptive activity**

VALI0035 FIMM 1601300450

ASHTAM 025/10

A) FIMM B) 1601300350 C) VOLCANO NAME D) 3744S057500E

E) YELLOW ALERT FOLLOWING ORANGE J) VULCANOLOGICAL AGENCY

**This AIP Supplement replaces AIP Supplement S003 of 2009**