

Applicability: All Aircraft Operators

VOLCANIC ASH

1 Introduction

- 1.1 The purpose of this FODCOM is to provide operators with information and recommendations on operations when volcanic ash may be present.
- 1.2 It is emphasised that a volcanic ash encounter is potentially extremely hazardous and areas of known contamination must be avoided. Volcanic ash may extend for several hundred miles and the contaminated zone may not be visible. The decision to operate should be taken carefully.
- 1.3 Areas affected by volcanic ash will be notified by SIGMET and the associated airspace restrictions/closures by NOTAM.

2 Parked Aircraft

- 2.1 Aircraft parked in areas that may be contaminated by volcanic ash should be suitably protected in accordance with the aircraft Type Certificate Holder's advice and covered where possible. Any volcanic residues must be removed prior to operations and following manufacturer's recommendations.

3 Operations to or from an Aerodrome Known to be Affected by Volcanic Ash

- 3.1 The aircraft Type Certificate Holder's advice should be sought prior to any operation to or from aerodromes contaminated with volcanic ash. Service Bulletins and Operations Manuals should be consulted. In addition to the hazards of contamination by volcanic ash, the runway braking action may be significantly affected.

4 Encountering Volcanic Ash

- 4.1 Airborne weather radar systems are not designed to detect volcanic ash clouds and extra precautions should be taken during flight, particularly during hours of darkness and in Instrument Meteorological Conditions (IMC) when volcanic ash may be present in the atmosphere. The following are signs that volcanic ash may be present during flight:
 - Smoke or dust in the cockpit.
 - An acrid or sulphurous odour.
 - St Elmo's Fire and static discharges around the windshield.
 - A bright white or orange glow in the engine inlets.
 - Sharp, distinct beams from the landing lights.
- 4.2 Any encounter with volcanic ash should be reported to Air Traffic Control (ATC) immediately and the procedures provided in the Operations Manual should be followed. General advice is to execute a 180-degree turn to leave the ash cloud. If possible, the engine thrust should be reduced to flight idle to minimise the build-up of ash in the engines.
- 4.3 A precautionary landing should be made at the nearest suitable airport if it is suspected that the engines have been adversely affected or there is aircraft damage.

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5 After Flight

- 5.1 If a volcanic ash encounter occurred or is suspected to have occurred during flight it must be reported to engineering staff and an entry made in the Aircraft Technical Log. Engineering action will be required prior to subsequent flight. The Aircraft Maintenance Manual should be consulted and advice sought from the aircraft Type Certificate Holder where necessary.
- 5.2 Any volcanic ash occurrences should be reported through the CAA's Mandatory Occurrence Reporting Scheme.

6 Maintenance Programmes

- 6.1 Where aircraft require routine schedule minor maintenance but are unable to fly to their normal maintenance facility, the possibility of issuing one-off maintenance authorisations to local maintenance staff in accordance with Part 145.A.30(j)(5) should be considered. Operators should also consider if inspection for signs of volcanic dust contamination needs to be performed before returning an aircraft to service.
- 6.2 In all cases where it is not possible to have outstanding maintenance performed at the aircraft's current location, the aircraft operator should contact their **local CAA regional office** for further advice.

7 Further information

- 7.1 Further information is available from the following sources:
- **CAA Info Alert 2010/20** – 'Volcanic Hazards and Aviation Safety - Background Information'.
 - **FAA Aeronautical Information Manual Chapter 7** provides basic guidance.
 - **ICAO Document 9766** - Handbook on the International Airways Volcano Watch (IAVW): Operational Procedures and Contact List.
 - **Airbus Flight Operations Briefing Note – 'Volcanic Ash Awareness'**.

8 Queries

- 8.1 Any queries as a result of this Flight Operations Communication should be addressed to the operator's Flight Operations Inspector (FOI), or for those who do not have an assigned FOI to the Head of Flight Operations Policy at the following e-mail address: **FOP.Admin@caa.co.uk**.

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Recipients of new Flight Operations Communications are asked to ensure that these are copied to their 'in house' or contracted maintenance organisation, to relevant outside contractors, and to all members of their staff who could have an interest in the information or who need to take appropriate action in response to this Communication. Flight Operations Communications can be accessed directly via the website www.caa.co.uk/fodcoms.

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