

Channel Islands DCA NOTICE 2010/01

Issued by the Director of Civil Aviation

Guidance to Operators in the Channel Islands Control Zone during the Presence of Volcanic Ash

1. Purpose

From 1200z on 18 May 2010 the Civil Aviation Authority of the United Kingdom introduced revised terminology and procedures relating to the contamination levels of volcanic ash in their airspace. Here in the Channel Islands we need to be in a position to operate in a way that is consistent with our near neighbours.

The purpose of this DCA Notice is to inform aircraft operators in the Channel Islands Control Zone and at the Channel Islands Airports of the additional air traffic service provision considerations in place when the airspace is contaminated by volcanic ash.

2. Scope

This Notice is addressed to all operators flying in Channel Islands airspace and operating at the Channel Islands Airports. Commercial Air Transport and Public transport operators should ensure they comply with the requirements of their State of Operator. Nothing in this Notice is intended to supersede these requirements.

3. Terminology

Within the UK, areas are classified as being of high, medium or low concentration based on the forecast movement and intensity of volcanic ash clouds. This classification is hereby extended by the DCA to the Channel Islands Control Zone (CTAs and CTRs) as follows:

Enhanced Procedure Zones (EPZ): defined as volumes of airspace within the boundary lines as depicted on the latest **Met Office London Volcanic Ash Advisory Chart** (http://metoffice.com/aviation/vaac/vaacuk_vag.html) where Volcanic Ash may be encountered and operators will have enhanced operational maintenance procedures in place. (These zones may also be referred to as areas of **LOW** ash concentration.)

Time Limited Zones (TLZs): defined as volumes of airspace as marked on the **Met Office London VAAC NWP Volcanic Ash Concentration Charts** (<http://www.metoffice.gov.uk/corporate/pressoffice/2010/volcano/ashconcentration/#D4>) where ash concentrations are predicted to exist and flight may take place according to parameters specific to certain airframe and engine pairing tolerance levels. (These zones may also be referred to as areas of **MEDIUM** ash concentration.)

No Fly Zones (NFZs): defined as volumes of airspace as marked on the **Met Office London VAAC NWP Volcanic Ash Concentration Charts** <http://www.metoffice.gov.uk/corporate/pressoffice/2010/volcano/ashconcentration/#D4> where ash concentrations are predicted to exist that exceed engine manufacturer tolerance levels. (These zones may also be referred to as areas of **HIGH** ash concentration.)

4. High Concentration Levels (No Fly Zones)

ATC Service Provision

ATC shall not offer a service within a high concentration area unless the pilot is operating under VFR or SVFR and the aircraft is a glider, balloon or piston powered aircraft and not operating for the purpose of public transport.

(Note: This means that turbine and turboprop aircraft shall not be offered an ATC service.)

ATC may provide a service to an aircraft in a high concentration area within controlled airspace only if it is operating under VFR within Class D airspace or under SVFR in Class A airspace.

(Note - SVFR flight due to Weather conditions or night in a NFZ is not permitted no matter what the airspace classification since the pilot needs to be able to visually assess the possible presence of ash.)

This restriction does not apply to operational emergency services flights (e.g. Air Ambulance, flights with STS/HOSP).

High Concentration Area Limits

The vertical extent of the high concentration area will be defined as a flight level and a minimum of 1000ft separation shall be applied against the high concentration area. Flight crew may request additional vertical separation against the vertical limits of the high concentration area. No additional lateral separation shall be provided against a defined high concentration area unless requested by the pilot.

Under-flying of a High Concentration Area is not permitted irrespective of the published lower level of the No Fly Zone.

(Note; ATC are not responsible for determining whether a particular operation is a public transport flight; however, if by the use of a company call-sign or other reason some doubt exists about the nature of the flight, this may be confirmed with the crew if necessary.)

When operating under SVFR the CAA requires that the aircraft must be “the only aircraft in that airspace block.” This is interpreted for the Channel Islands airspace as requiring the airspace to be “tactically managed by the service provider.” In effect, where high/medium concentration areas are within an area of controlled airspace, flow measures may be used to restrict/limit entry into the sector/airfield. This is to enable ATC to respond safely to urgent requests from aircraft to alter heading or level to avoid encountering volcanic ash.

Aircraft Inadvertently Entering a High Concentration Area

In the event of an aircraft inadvertently entering a high concentration area, assistance shall be provided by ATC to enable a pilot to exit such a volume of airspace in the most expeditious and appropriate manner. In all other circumstances no ATC service other than an alerting service may be provided within a high concentration area.

Aircraft Refusal to Comply

If an aircraft refuses to comply with an instruction to avoid a high concentration area, the pilot can expect to receive the following message from ATC:

“You are about to enter a notified High Concentration Area of Volcanic Ash in your (xx) o’clock up to FL (xxx). ATC Clearance is prohibited. What are your intentions?”

If the aircraft then subsequently enters the high concentration area:

“You have entered a High Concentration Area of Volcanic Ash. There is no known traffic to affect you. I am required to report this to the authorities. You are advised to fly heading (xxx) degrees /climb / descend FL (xxx) in order to vacate the area.”

In the event of an emergency where a pilot reports that they are intending to enter a high concentration area, the flight crew can be expected to be warned that they are entering a notified area of volcanic ash.

“You are about to enter a notified High Concentration Area of Volcanic Ash in your (xx) o’clock up to FL (xxx).”

In the event that an aircraft is positioned within a newly defined high concentration area when a new map becomes effective, or if an aircraft makes its first contact with ATC whilst already within a NFZ, the aircraft shall be provided with advice on the most expeditious way to vacate the high concentration area and informed that they have been within a defined high concentration area.

5. Medium Concentration Levels (Time Limited Zones)

Medium Concentration Areas are defined as volumes of airspace where ash concentrations are predicted to exist and flight may take place within specific airframe and engine pairing tolerance levels. Within Medium Concentration Areas, it is for the Aircraft Operator and the Aircraft Commander to determine that it is safe to operate the aircraft in such airspace. ATC should not attempt to verify whether or not an aircraft may operate within Medium Concentration Areas.

Within these areas normal ATC procedures apply. IT IS THE RESPONSIBILITY OF THE PILOT to inform the controller if they cannot accept an ATC instruction with regard to conducting safe flight operations near, or over, known and forecast Medium Concentration Areas. Pilots may decline a vector that would take the aircraft into a medium concentration area if that would be contrary to the aircraft type and engine pairing tolerance level. A pilot may also request to leave a medium concentration area following avoiding action that has placed the aircraft in such airspace if the aircraft is unable to sustain flight within the medium concentration area and comply with the relevant tolerance level. ATCOs should accommodate any such request as expeditiously as operational safety considerations allow.

In the event that aircraft within an area of Medium Concentration needs to exit the area, controllers should treat this as an emergency situation. ATC should provide assistance as requested by the pilot.

Significant air holding will prolong aircraft exposure to ash, therefore traffic management shall take into account the need to minimise air holding in areas of medium ash concentrations.

6. Low Concentration Levels (Enhanced Procedure Zones)

Unlike High and Medium Concentration Areas, areas of low concentration volcanic ash are not promulgated by NOTAM. Within these areas normal ATC procedures apply and it is the responsibility of the pilot to inform the controller if they cannot accept ATC instructions with regards to conducting safe flight operations near known and forecast areas of volcanic ash.

7. Volcanic Ash Encounters

The CAA have mandated that flight crews shall not fly through an area of volcanic ash that they can see and pilots will request a clearance to avoid the area. If an aircraft outside of a defined High concentration area reports encountering volcanic ash the information shall be communicated to other flight crew in the vicinity and the Supervisor/Watch Manager, who will relay the information to any other relevant agencies (e.g. adjacent ATSUs etc). If aircraft encounter significant concentrations of volcanic ash, pilots may, possibly without first advising ATC, do any or all of the following actions:

- Execute a 180° turn;
- Descend
- Reduce engine power
- Disconnect auto-throttle

8. Reporting of Volcanic Ash Encounters

Air Navigation Service Providers are requested to report any encounters with, or experience of, volcanic ash reported by pilots, to the Civil Aviation Authority via the Mandatory Occurrence Reporting (MOR) system. These reports should be made with maximum urgency. This information may assist the relevant bodies to predict more accurately the presence, movement and altitude of the volcanic ash, and any potential effect on flight. It is requested that ANSPs report any encounters with, or experience of, Volcanic Ash reported by pilots, to the Civil Aviation Authority via the MOR system at the earliest opportunity.

Action to be taken in the CICZ upon report of Volcanic Ash

Special Air Reports provided by pilots should be forwarded by ATC to the UK Met Office via the telephone on +44 (0)1392 884918 and contain the following information:

- Volcanic Ash encounter;
- Aircraft identification;
- Position or Latitude and Longitude;
- Time;
- Flight Level or altitude; and
- Any further relevant information.

These reports should be made with maximum urgency. This information may assist the relevant bodies to predict more accurately the presence, movement and altitude of the Volcanic Ash, and any potential effect on flight.

Pilots should also report any encounters to ATC as soon as it is safe to do so.

ATIS

An ATIS messages shall be prepared stating that Volcanic Ash has been reported in the CICZ and ATC will tactically issue vectors to aircraft to avoid the areas.

9. Flow Management

In the event that medium volcanic ash areas are forecast to impact UK or Channel Islands airspace, en-route or terminal control sectors, pilots can anticipate flow rate restrictions being applied for volcanic ash (known as CAP ASH) equivalent to the defined weather rate (known as CAP WX).

10. Maps and NOTAM

Volcanic ash maps are generated by the UK Met Office. These maps can be viewed by following the links provided:

EPZs (http://metoffice.com/aviation/vaac/vaacuk_vag.html)

TLZs <http://www.metoffice.gov.uk/corporate/pressoffice/2010/volcano/ashconcentration/#D4>

NFZs <http://www.metoffice.gov.uk/corporate/pressoffice/2010/volcano/ashconcentration/#D4>

Map Legend

The map legend on the UK Met Office charts is as follows:

Concentration	Zone	Met Office Charts
Low	EPZ	Red
Medium	TLZ	Grey
High	NFZ	Black

NOTAM

The coordinates for NFZs and TLZs will be issued by UK NOTAM