Supplementary Volcanic Ash Products provided by the London and Toulouse VAACs

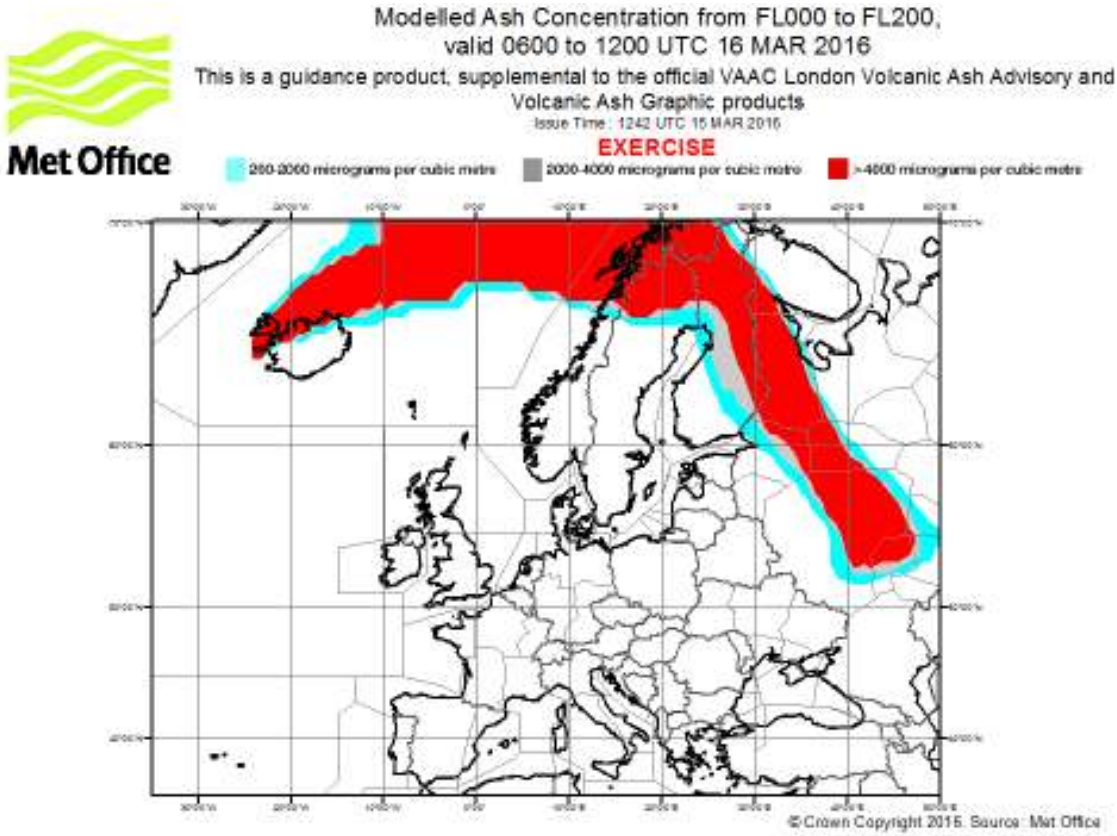
In the EUR region, in addition to the ICAO products such as VAA/VAG, some supplementary products are available in accordance with EASA Safety Information Bulletin SIB N° 2010-17R6.

These data or graphics, when produced, represent **additional information** on VA contaminated areas.

1. Volcanic Ash Concentration Charts

The EUR region is required to provide supplementary information on volcanic ash beyond a simple ash/no ash product to support the region's Safety Risk Assessment (SRA) based approach in case of a significant ash producing eruption. This means that multiple contamination levels will continue to underpin the EUR/NAT Volcanic Ash Contingency Plan (VACP).

Since the 2010 Eruption of Ejyafjallajökull, VAACs London and Toulouse have provided Volcanic Ash Concentration Charts in support of the VACP. These charts predict the location of a quantitative mass of ash per unit volume.



They are available in the VAACs Websites (VAAC London: VAAC London volcanic ash concentration charts and VAAC Toulouse: VAAC Toulouse volcanic ash concentration charts).

The Volcanic Ash Concentration Charts are provided for three contamination levels:-

- **Low contamination'** Volcanic Ash Mass Concentration less than or equal to 2000 micrograms per cubic metre.
- **'Medium contamination'** Volcanic Ash Mass Concentration greater than 2000 micrograms per cubic metre and less than 4000 micrograms per cubic metre.
- **'High contamination'** Volcanic Ash Mass Concentration greater than or equal to 4000 micrograms per cubic metre

Volcanic Ash Mass Concentration charts are issued every 6 hours at 00, 06, 12 and 18 UTC for T+0, T+6, T+12, and T+18 hours ahead. It should be noted that the charts represent the actual or forecast location of ash over the 6-hour period up to the validity time.

The charts detail a number of polygons which will be divided into low, medium and high contamination areas.

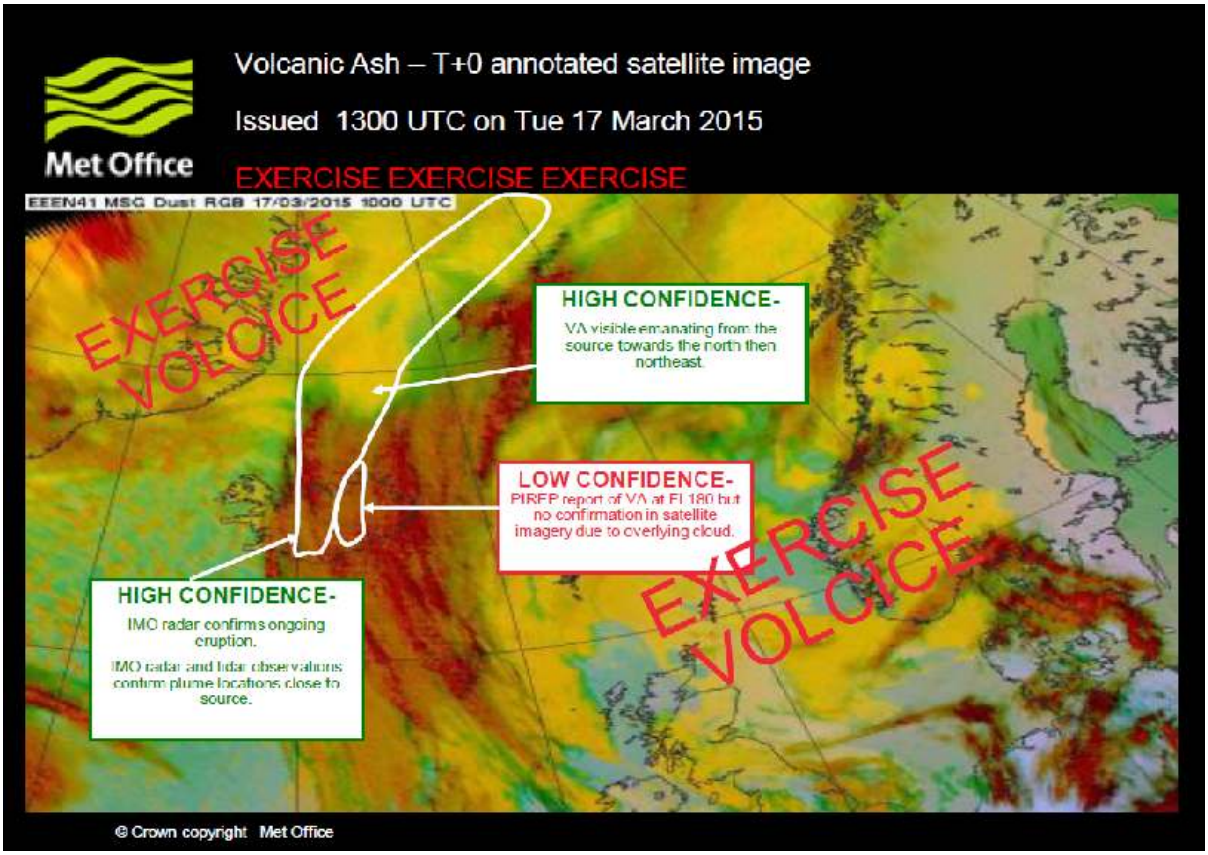
- Low Contamination: <= 2000 micrograms per cubic metre
- Medium Contamination: > 2000 < 4000 micrograms per cubic metre
- High Contamination: >= 4000 micrograms per cubic metre

Separate charts covering different Flight Level bands (FL000-200, FL200-350, FL350-550 are provided.

2. Annotated Satellite Image

At regular intervals (every 3 hours for VAAC London) VAAC Toulouse and VAAC London will produce a satellite image which is annotated with a variety of observational information related to volcanic ash including pilot reports, research aircraft reports, lidar information and other satellite information. This information assists users to understand how the VAAC forecasters are using this additional information that is being provided by indicating the confidence on which it is being evaluated.

These products will be issued every 3 hours at the following approximate times: 02, 05, 08, 11, 14, 17, 20, and 23 UTC.



3. Data Files

Data files in CSV format will be provided for contour co-ordinates of the CML charts in a similar format to those currently provided. Note, however, that some of the information contained in the header (the first 11 lines of the CSV file) will differ from those currently issued. Consideration will be given to publishing an XML schema for ingestion of this data. This will facilitate more streamlined ingestion of the contour data into visualization packages.

CSV Format – Current format (as at 15.03.16) – as provided to EUROCONTROL – other variants also exist

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VOLCANO: KATLA 372030
PSN: N6338 W01903
VOLCANIC ASH CONCENTRATION: LOW 200 MICROGRAMS PER CUBIC METRE CONTOUR LOW; 200 MICROGRAMS PER
CUBIC METRE CONTOUR
ISSUE TYPE: TEST
MODEL RUN: 20160308/0900
ISSUE TIME: 20160308/0858
VALIDITY TIME: 20160308/2100
FLIGHT LEVEL: FL200/FL350
REMARKS: CONFIDENCE AT T+0 IS HIGH DUE TO REPORTS FROM IMO. SEE ANNOTATED SATELLITE IMAGERY FOR
FURTHER DETAILS.
ORIGINATOR: LONDON VAAC
POLY 1
N695414,W0245459
N693250,W0235049
N693215,W0220807
N684750,W0195437
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