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AIC for Estonia

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**Vulkaanilise tuha sündmuste
haldamine Tallinn FIR-is****Management of Volcanic Ash Events
in Tallinn FIR**

Tulenevalt sellest, et materjal sisaldab palju spetsiifilisi mõisteid ja lühendeid, on see avaldatud originaalkujul inglise keeles.

Since this material contains a number of specific terms and abbreviations, it is published in English as an original.

See ringkiri tühistab AIC A 08/2018.

This AIC cancels AIC A 08/2018.

1. Introduction

The purpose of this AIC is to provide operators and pilots with information on operations when volcanic ash concentration may be present in the Tallinn FIR.

Areas affected by volcanic ash shall be notified by SIGMET and associated information shall be published by NOTAM. NOTAM shall be published based on information received from the Meteorological Watch Office and shall give information on the status of the volcano eruption or its significant changes, references existing information such as VAA/VAG, Volcanic Ash Concentration Charts and VA SIGMET.

Additionally, ANSP-s and AO-s are encouraged to use the European crisis visualization interactive tool for ATFCM (EVITA). EVITA is a collaborative online tool which allows users to visualize the impact of a crisis on air traffic and on the available air traffic network capacity in Europe.

Note: This AIC must under no circumstances be considered as a permit to conduct normal flight operations in volcanic ash conditions.

2. Key Principles

The operator is responsible for the safety of its operations under the oversight of their respective State regulatory authority. The guiding principle for such operations is the use of a safety risk management approach, as described in ICAO Doc 9974.

In order to consider whether or not to operate into airspace forecast to be, or aerodromes known to be, contaminated with volcanic ash, the operator should have in place an identifiable safety risk assessment (SRA) within its Safety Management System (SMS).

In order to decide whether or not to operate into airspace forecast to be, or aerodromes known to be, contaminated with volcanic ash, the operator's SRA must be accepted by its State regulatory authority.

The safety control measures set out in ICAO Doc 9974 and [EASA Safety Information Bulletin \(SIB\) 2010-17R7](#) are intended to be sufficiently robust that they facilitate acceptance, without further investigation, by a State whose airspace is forecast to be affected by volcanic ash. The State can, based on the implementation of internationally accepted Safety Management principles, be confident in the ability of operators from other States to undertake operations safely in its airspace.

If flights are penetrating an area of high, medium or low contamination, the responsible ANSP shall provide air traffic services as normal. The ANSP is not responsible for providing clearances to aircraft in order to avoid volcanic ash concentrations. Flying through an area of high, medium or low contamination shall remain full responsibility of the aircraft operator and/or the pilot in command.

3. Areas of Contamination

The following definitions of contamination are applicable in Estonia regarding operation of aircraft in airspace contaminated with volcanic ash.

- **Low Contamination** (to be displayed in Cyan): Volcanic Ash Mass Concentration less than or equal to $2 \times 10^{-3} \text{ g/m}^3$.
- **Medium Contamination** (to be displayed in Grey): Volcanic Ash Mass Concentration greater than $2 \times 10^{-3} \text{ g/m}^3$ and less than $4 \times 10^{-3} \text{ g/m}^3$.
- **High Contamination** (to be displayed in Red): Volcanic Ash Mass Concentration greater than or equal to $4 \times 10^{-3} \text{ g/m}^3$.

These definitions are consistent ICAO EUR/NAT Volcanic Ash Contingency Plan (VACP) (ICAO EUR Doc 019/NAT Doc 006 Part II) and EASA Safety Information Bulletin (SIB) 2010-17R7.

4. SRA (Safety Risk Assessment) Application in Estonia

4.1 Areas of Ash Contamination

In Estonia Aircraft Operators shall be allowed to make decisions based on their SRA in the forecast areas of low, medium and high ash contamination. Therefore, Estonia shall allow operators to make decisions based on their SRA, as accepted by their respective State regulatory authority, in forecast areas of low, medium and high ash contamination.

4.2 Common SRA Recognition

As part of its overall decision making process regarding the operation of aircraft in airspace forecast to be, or aerodromes known to be, contaminated with volcanic ash, Estonia shall allow aircraft operators registered in other States to base their decisions on their SRA, as accepted by their State regulatory authority, in accordance with the above mentioned approach (see 4.1) to decision making in Estonia.

5. Detection of Volcanic Ash

No ground-based instruments, specialized research aircraft or aerosol sonde shall be available for detection of volcanic ash in Estonian airspace during a volcano event. Only satellite observations and pilot reports, if that are available, shall be used as best estimate of where the ash cloud is currently present in the airspace.

6. Volcanic Ash Reporting

6.1 In-flight Reporting

If any volcanic ash is encountered during a flight within Tallinn FIR, the pilot shall report to the ATS unit with which the pilot is in radiotelephony communication. Pilots should also report to the ATS unit non-encounters with volcanic ash in the areas where ash is forecast.

6.2 Recording and Post-flight Reporting

If any volcanic activity is observed during a flight, the pilot should complete the ICAO Volcanic Activity Report (VAR) form with detailed information (position, colour, smell, dimensions, level and time of observation, impact on the flight, etc.). On arrival of a flight at any Estonian aerodrome, the flight crew member or the aircraft operator shall transmit, without delay, the completed VAR form to the aerodrome meteorological office.

7. Referenced Documents

- ICAO Doc 9974 "Flight Safety and Volcanic Ash"
- ICAO EUR/NAT Volcanic Ash Contingency Plan (VACP) (ICAO EUR Doc 019/NAT Doc 006 Part II)
- EASA Safety Information Bulletin (SIB) 2010-17R7
- Commission Implementing Regulation (EU) No 923/2012 - SERA.12005 Special aircraft observations
- Commission Regulation (EU) 965/2012 - ORO.GEN.200 Management system

8. Additional Information

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