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**ARMENIAN AIR TRAFFIC SERVICES**  
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**REPUBLIC OF ARMENIA**  
**GENERAL DEPARTMENT OF CIVIL AVIATION**

The present Circular of Aeronautical Information to be Expected in the Case of Airspaces Contaminated With Volcanic Ash.

**AIC Effective date 12 AUG 2021.**

**This AIC cancels AIC A 02/15.**

# **Procedures for the conduct of flights in airspace contaminated with volcanic ash**

## **1. General**

The purpose of this promulgation is to provide information about the procedures for the safe conduct of flights in airspace contaminated with volcanic ash and about the pertinent publications and meteorological information. This promulgation explains, in particular, the procedures for operators of aircraft that are subject to the scope of National regulations of Republic of Armenia (RA) and are in line with the recommendations of the International Civil Aviation Organization (ICAO), ICAO Doc 9974 [1] and of the European Union Aviation Safety Agency (EASA), EASA Safety Information Bulletin (SIB) 2010-17R7 [2], which means that they are in line with the procedures of the Member States of the European Union.

## **2. Principles for flight operations in airspace contaminated with volcanic ash**

– The operator of an aircraft is responsible for the safety of its operations under the oversight of the competent aeronautical authority. The guiding principle for flight operations in airspace contaminated with volcanic ash is the conduct of a safety risk assessment in line with the procedure described in ICAO Doc 9974 and in the EASA Safety Information Bulletin (SIB) 2010-17R7.

– Flights through visible or discernible volcanic ash should be avoided, in particular, if the visibility of the ash is impeded (e.g. in instrument meteorological conditions (IMC), at night).

– As part of their safety management system (SMS), operators should provide for adequate safety risk assessments to investigate and decide if flight operations can be conducted into airspace forecast to be, or aerodromes known to be, contaminated with volcanic ash. Such safety risk assessments should have been accepted through the competent aeronautical authority.

– The safety and control measures set out in ICAO Doc 9974 [1] and the EASA Safety Information Bulletin (SIB) 2010-17R7 are considered sufficient to facilitate acceptance, without further investigation, by a State whose airspace is forecast to be contaminated with volcanic ash. On the basis of the implementation of these internationally accepted safety management principles, the State can be confident in the ability of operators from other States to undertake operations safely in its airspace.

## **3. Definitions**

### **3.1. Contamination levels of airspace affected by volcanic ash**

The level of contamination with volcanic ash is defined as follows:

#### **a. Areas of low contamination:**

An airspace of defined dimensions where volcanic ash may be encountered at concentrations greater than  $0.2 \times 10^{-3}$  g/m<sup>3</sup>, but less than or equal to  $2 \times 10^{-3}$  g/m<sup>3</sup>.

#### **b. Areas of medium contamination:**

An airspace of defined dimensions where volcanic ash may be encountered at concentrations greater than  $2 \times 10^{-3}$  g/m<sup>3</sup>, but less than  $4 \times 10^{-3}$  g/m<sup>3</sup>.

**c. Areas of high contamination:**

An airspace of defined dimensions where volcanic ash may be encountered at concentrations equal to or greater than  $4 \times 10^{-3} \text{ g/m}^3$ .

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

**3.2. Publication of information about the contamination of airspace with volcanic ash**

Information about the contamination of airspace with volcanic ash is promulgated by the ICAO Volcanic Ash Advisory Centers (VAAC) and the "Zvartnots" Aviameteorological Centre" CJSC (ZAC) by means of the following publications:

**a. ASHTAM**

Whenever necessary, the procedures for the conduct of flights in airspace contaminated with volcanic ash will be activated by an ASHTAM.

**b. VAAC forecasts**

According to the provisions of ICAO and EASA, it is recommended to use the forecasts prepared by VAAC London or VAAC Toulouse as well as the forecasts of volcanic ash concentrations also provided by the VAAC when planning and conducting flights in European airspace.

**c. SIGMET as well as observation and forecast data of ZAC**

**To ensure the meteorological safety of aviation, the ZAC** provides information of the VAAC as well as their own observation and forecast data concerning volcanic ash in RA airspace. These data are published on the website [www.aamc.am](http://www.aamc.am) of the ZAC and are freely available to all decision-makers and airspace users. According to the ICAO provisions, the ZAC disseminates SIGMET within the scope of their meteorological observations and advises users as the case arises.

According to GM2 ORO.GEN.200 (a) (3) to Regulation (EU) No 965/2012 [4] (RA Regulation 188-N 2010), when making their decisions for the conduct of a flight, pilots must take into account that the VAAC forecasts may differ from the current measurements as well as from the data and forecasts provided by the national meteorological services. The decision-making should therefore mainly be based on the more detailed information provided by the ZAC and explicitly not only on the VAAC forecast.

## **4. Use of safety risk assessment in RA**

### **4.1. Operators of aircraft in accordance with National regulations of RA and in conjunction with Regulation (EU) No 965/2012] (RA Regulation 188-N 2010)**

In RA, operators of aircraft that are subject to the scope of application of National Regulation make their decisions concerning the conduct of flights into airspace contaminated with volcanic ash or such aerodromes on the basis of their safety risk assessment in the forecast areas with low, medium and high contamination. The defined procedures for this safety risk assessment require the acceptance of the competent authority. If it is known that airspaces or aerodromes are contaminated with volcanic ash, operators of aircraft in accordance with National Regulation in conjunction with Regulation (EU) No 965/2012 (RA Regulation 188-N 2010) shall conduct their flight operations according to the result of their accepted safety risk assessment and the procedures laid down in the relevant manuals.

### **4.2. Mutual acceptance of safety risk assessments/third countries**

With respect to the entire decision-making process concerning the operation of aircraft into airspace forecast to be, or aerodromes known to be, contaminated with volcanic ash, Armenia permits operators of aircraft registered in other States to make their decision in line with the above-mentioned approach (see 4.1) in RA on the basis of their safety risk assessment, provided that it has been accepted by the competent authority of their respective State.

## **5. Volcanic ash pilot reports and occurrence reporting**

### **5.1. In-flight reporting**

Pilots encountering volcanic ash within the YEREVAN FIR, shall report this to the air traffic control unit they are in radiotelephony contact with. Pilots should also submit a report to the air traffic control unit if they do not encounter any ash in areas where volcanic ash has been forecast.

### **5.2. Post-flight reporting**

The procedures described in the ICAO EUR/NAT Volcanic Ash Contingency Plan (VACP) (ICAO EUR Doc 019/NAT Doc 006Part II) Appendix 2 shall be applied.

### **5.3. Occurrence reporting**

Special occurrences in aircraft and/or aircraft engines and/or volcanic ash encounters are subject to mandatory reporting in accordance with State safety program of RA in conjunction with Implementing Regulation (EU) No 2015/1018 as well as in accordance with Regulation (EU) No 965/2012, ORO.GEN.160 (RA Regulation 188-N 2010), in conjunction with the relevant AMC material. The reporting procedures laid down in the aircraft operator's manuals shall be complied with.

## **6. Special safeguard provisions and general orders**

**6.1** To avert operational hazards to the safety of air traffic and to public safety or order, the Ministry of territorial administration and infrastructure of RA can also temporarily adopt special safeguard provisions and general orders on the basis of National regulation of RA.

## **7. Reference documents**

Further explanations can be found in the following reference documents:

**7.1** ICAO Doc 9974 - Flight Safety and Volcanic Ash

**7.2** EASA Safety Information Bulletin (SIB) 2010-17R7

**7.3** ICAO EUR/NAT Volcanic Ash Contingency Plan (VACP) (ICAO EUR Doc 019/NAT Doc 006 Part II)

**7.4** Regulation (EU) No 965/2012 - ORO.GEN.200 (a)(3), GM2 ORO.GEN.200 (a)(3), State safety program of RA and (RA Regulation 188-N 2010),

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