



**European Aviation Safety Agency**  
**Explanatory Note Decision 2013/009/R**

Guidance Material for the development of a safety risk assessment for flight operations with known or forecast volcanic cloud contamination

RELATED CRD 2012-07 — RMT.0460 — 16/04/2013

**Executive Summary**

*Rulemaking task RMT.0460 addresses a safety issue related to the operations of flight into areas forecast to be or aerodromes/operating sites known to be contaminated with volcanic ash.*

*This task is linked to the outcome of the work of the ICAO IVATF and especially the publication of ICAO Doc No 9974 related to 'Risk management of flight operations with known or forecast volcanic ash contamination'.*

*The specific objective is to mitigate the risks linked to operations into an area forecast to be contaminated by volcanic ash by providing some specific provisions related to the definition of a volcanic ash safety risk assessment.*

*This Decision proposes to introduce guidance to operators on how to define their volcanic ash safety risk assessment as part as their management system.*

*The proposed changes are expected to increase safety and improve harmonisation throughout Europe.*

	<b>Applicability</b>	<b>Process map</b>	
<b>Affected regulations and decisions:</b>	Decision 2012/017/R	Rulemaking group	No
<b>Affected stakeholders:</b>	Operators	RIA type	None
<b>Driver/origin:</b>	ICAO Doc No 9974	Duration of NPA consultation	19/07/2012 – 19/10/2012
<b>Reference:</b>	ICAO Doc No 9974 EASA SIB 2010-17R4 ICAO EUR Doc 019 EASA A-NPA 2011-06 EASA CRD 2011-06 EASA Decision 2011/014/R	Review group	No
		Focused consultation	No
		Publication date of the related Opinion (if applicable)	N/A

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## 1 Procedural information

### 1.1 The rule development procedure

Executive Director Decision 2013/009/R, amends Decision 2012/017/R of 24 October 2012 .

The European Aviation Safety Agency (hereafter referred to as the 'Agency') developed this Decision in line with Regulation (EC) No 216/2008 (hereafter referred to as the 'Basic Regulation')<sup>1</sup> and the Rulemaking Procedure established by the EASA Management Board (MB Decision 01-2012).<sup>2</sup>

This rulemaking activity is included in the Agency's Rulemaking Programme for 2013 (RMT.0460), and was launched as an outcome of RMT.0395 (OPS.089). The scope and schedule of the task was defined in the related Terms of Reference published on 28 June 2012.

The text of this Decision has been developed by the Agency. The public was consulted through NPA 2012-07 in accordance with Article 52 of the Basic Regulation and Articles 5(3) and 6 of the Rulemaking Procedure.

The process map on the title page summarises the major milestones of this rulemaking activity.

### 1.2 Structure of the related documents

The Explanatory Notes are divided in three chapters:

- Chapter 1 contains the procedural information related to this task,
- Chapter 2 explains the core technical content,
- Chapter 3 provides references to related rules, affected Decisions and related documents.

A summary of the comments received during the public consultation of NPA 2012-07, together with the list of all the comments received and the individual answers, are provided in the Comment-Response Document CRD 2012-07.

The rule text itself is annexed to Decision 2013/009/R.

## 2 Explanatory Note

### 2.1 The issues to be addressed

Following the last major eruptions of volcanos and considering the consequences of such eruptions on flight operations, discussion at an ICAO level reached the common position that an operator should not be prevented from operating through, under, or over airspace forecast to be contaminated with volcanic ash or aerodromes/operating sites contaminated with volcanic ash, provided it has demonstrated in its management system, the capability to do so through a safety risk assessment.

ICAO created in July 2010 the International Volcanic Ash Task Force (IVATF), in which the Agency was fully engaged, to assess the global aviation needs in relation to volcanic events. The IVATF has developed a proposal, which was supported by the Agency, for Guidance Material on the management of flight operations with known or forecast volcanic ash contamination. ICAO issued in February 2012 an advanced version of DOC 9974 'Risk management of flight operations with known or forecast volcanic ash contamination'. This document provides Guidance Material which States may recommend to operators and

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<sup>1</sup> Regulation (EC) No 216/2008 of the European Parliament and the Council of 20 February 2008 on common rules in the field of civil aviation and establishing a European Aviation Safety Agency, and repealing Council Directive 91/670/EEC, Regulation (EC) No 1592/2002 and Directive 2004/36/EC (OJ L 79, 19.3.2008, p. 1), as last amended by Commission Regulation (EU) No 6/2013 of 8 January 2013 (OJ L 4, 9.1.2013, p. 34).

<sup>2</sup> The Agency is bound to follow a structured rulemaking process as required by Article 52(1) of the Basic Regulation. Such process has been adopted by the Agency's Management Board and is referred to as the 'Rulemaking Procedure'. See Management Board Decision concerning the procedure to be applied by the Agency for the issuing of opinions, Certification Specifications and Guidance Material (Rulemaking Procedure), EASA MB Decision 01-2012.

regulatory authorities where volcanic ash contamination may be a hazard for flight operations. The guidance is based on operators developing a volcanic ash safety risk assessment (VA SRA), within their management system, and regulatory authorities assessing these VA SRA to establish the operator's capability to safely conduct flights.

The Agency issued an Advance Notice of Proposed Amendment (A-NPA 2011-06) on 3 May 2011 to support the work of ICAO IVATF Airworthiness Sub-Group AIR04 and to consult stakeholders on the implementation of such Guidance Material into the European regulatory framework. The feedback provided during this consultation indicated that stakeholders considered that rulemaking should be initiated in the short term in order to transpose ICAO Guidance Material into the European regulatory framework. Following this consultation, Decision 2011/014/R was then issued on 12 December 2011, stating that a new rulemaking task RMT.0460 was going to be initiated.

The draft Regulation on Air Operations proposed to the Commission (the Agency's Opinion No 04/2011) requires in Annex III Part-ORO all commercial operators and non-commercial operators operating complex motor-powered aircraft to implement a management system within their organisation. The same requirements on management system are contained in Commission Regulation (EU) No 1178/2011 related to civil aviation aircrew in Part-ORA which is applicable to all approved training organisations (ATO) whatever the type of aircraft they operate. This management system should include an identification of all hazards related to the type of operations performed and an assessment of the acceptability of the associated safety risks with the appropriate mitigation procedures.

Part-ORO, including all the management system requirements, is not applicable to non-commercial operations with other than complex motor-powered aircraft (NCO). Therefore, there is no obligation for an NCO operator to undertake a VA SRA. In order to keep Part-NCO proportionate, the Agency has decided to address NCO operations into airspace forecast to be or aerodromes/operating sites known to be contaminated with volcanic ash, via the definition of best practices through EGAST. Consequently, the scope of this task is limited to commercial operators, non-commercial operators with complex motor-powered aircraft, and approved training organisations.

Some generic guidance related to safety risk assessment is already included in draft Acceptable Means of Compliance (AMC) and Guidance Material (GM) on Air Operations Annexes II Part-ARO and III Part-ORO, and also in AMC/GM to Commission Regulation (EU) No 290/2012 Annexes VI Part ARA and VII Part ORA, but, nevertheless, does not provide yet any specific guidance on SRA related to flight in volcanic ash nor guidance for authorities on the assessment of such VA SRA.

The Agency has produced SIB 2010-17, which is being continuously updated to provide information and guidance to operators on how to manage operations within airspace contaminated with volcanic ash.

## **2.2 Objectives**

The overall objectives of the EASA system are defined in Article 2 of the Basic Regulation. This proposal will contribute to the overall objectives by addressing the issues outlined in Section 2.

The specific objective of this proposal is, therefore, to develop AMC and GM to Part-ORO to provide operators with some additional Guidance Material on VA SRA.

## **2.3 Overview of the amendments**

All the proposed changes to the affected Decisions are stemming from ICAO Doc No 9974, with some minor modifications to take into account the European regulatory framework.

The new GM added to Part-ORO Decision emphasises the responsibility of the operator to decide whether to operate or not in an area forecast to or from/to an aerodrome/operating site known to be contaminated with volcanic ash and provide guidance to operators on:

- the generic hazard itself, and on the list of specific hazards, within the generic hazard, that have to be developed by each operator;

- on the general principles of a VA SRA, and especially on the different steps of the process; and
- on the procedures that should be considered when developing mitigation measures. A non-exhaustive list of procedures related to the major processes of flight operations is given.

## **2.4 Stakeholders concerns**

CRD 2013-XX, published together with the Explanatory Notes and the Decisions provides a summary of the main comments received during the public consultation. It also provides the list of all comments received together with the Agency's individual answers to each of them.

## **2.5 Summary Regulatory Impact Assessment**

The purpose of a Regulatory Impact Assessment (RIA) is to assess the impacts and consequences of the rules which are being proposed. The assessment aims to support the decision making process by exploring the pros and cons of all possible options, as part of the implementation of the Basic Regulation.

As stated in NPA 2012-07, following the comments received after the publication of A-NPA 2011-06, no other option has been identified for this task (see Decision 2011/014/R).

In addition, the aim of the task is to introduce AMC and GM on volcanic ash safety risk assessment to Part-ARO/ORO and Part-ARA/ORA based on the content of ICAO Doc 9974.

Therefore, it is the decision of the Agency that no detailed RIA is necessary to support this specific task.

## **3 References**

### **3.1 Related regulations**

Commission Regulation (EU) No 965/2012 of 5 October 2012 laying down technical requirements and administrative procedures related to Air Operations pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council.

### **3.2 Affected decisions**

Decision 2012/17/RM of the Executive Director of the European Aviation Safety Agency of 24 October 2012 on Acceptable Means of Compliance and Guidance Material to Commission Regulation (EU) No 965/2012 of 05/10/2012 laying down technical requirements and administrative procedures related to Air Operations pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council.

### **3.3 Reference documents**

- ICAO Doc No 9974 'Flight safety and volcanic ash – Risk management of operations with known or forecast volcanic ash contamination'
- ICAO EUR Doc 019 'Volcanic ash contingency plan — EUR and NAT regions'
- EASA SIB 2010-17R4
- EASA A-NPA 2011-06
- EASA CRD 2011-06
- EASA Executive Director Decision 2011/014/R
- EASA ToR RMT.0460
- EASA NPA 2012-07