



International Civil Aviation Organization

**SEVENTEENTH MEETING OF THE METEOROLOGY
SUB-GROUP (MET SG/17) OF APANPIRG**

Bangkok, Thailand, 13 – 16 May 2013

Agenda Item 7: Meteorological advisories, warnings and hazards

**OUTCOMES OF VOLCANIC ASH EXERCISE IN KAMCHATKA
IN 2013 (VOLKAM13)**

(Presented by Japan)

SUMMARY

This paper presents overview of remarkable outcomes of the Volcanic Ash Exercise in Kamchatka in 2013 (VOLKAM13) conducted on 15-16 January 2013

1. Introduction

1.1 In ICAO EUR/NAT region, Volcanic Ash Exercise (VOLCEX) has been conducted since 2008 so as to test the ICAO EUR/NAT Regions contingency plan (EUR Doc 019/NAT Doc 006, Part II), with a view to mitigating impacts of volcanic ash on air traffic.

1.2 Meanwhile, the International Volcanic Ash Task Force (IVATF) agreed that contingency plan for volcanic ash was necessary for safety flight and formulated conclusion that recommended each ICAO region to establish regional Air Traffic Management Volcanic Ash Contingency Plan (ATM VACP) with its template.

1.3 In this context, the European Air Navigation Planning Group Programme Coordinating Group (EANPG COG) established the Volcanic Ash Exercises Steering Group for the (far) Eastern part of the EUR Region (EUR (EAST) VOLCEX/SG) and tasked it to ensure the conduct of regular volcanic ash exercises in the EUR (EAST) Region, including Kamchatka Peninsula.

1.4 First Meeting of the steering group (EUR (EAST) VOLCEX/SG/1) was held in Petropavlovsk-Kamchatsky, Russian Federation in August 2012, and attended by delegates from Japan Civil Aviation Bureau (JCAB) and Japan Meteorological Agency (JMA, as Tokyo VAAC), as well as relevant Russian air traffic organization, meteorological watch offices, and volcanological observatories. The meeting determined the date and discussed objectives, procedures of the Volcanic Ash Exercise in Kamchatka in 2013 (VOLKAM13). Participants agreed that main objective was to consider adapting ATM VACP template developed for use in the region based on the exercise conclusions. The objectives, procedures and attributes of the exercise were then formalized in the Exercise Directive for VOLKAM13.

1.5 VOLKAM13 was conducted on 15-16 January 2013 successfully, especially in terms of identification of issues in contingency operations by exercise participants.

2. Overview of VOLKAM13

2.1 To examine ATM VACP template, VOLKAM13 focused on coordination procedures between national ATM Centres (Russian Federation - MATMC, Japan – Fukuoka ATMC, and U.S – ATC System Command Center), amongst ACCs (Anchorage, Oceanic Sector of Fukuoka ATMC, Khabarovsk, Magadan, Oakland Center, Petropavlovsk-Kamchatsky and Sapporo), and amongst Providers (e.g. ATS, MET, VAACs and Volcano Observatories (VOs)).

2.2 To this end, the participating agencies agreed to draw up an exercise scenario, which simulates a major eruption of Karymsky, one of the most active volcanoes in Kamchatka, and a large amount of ash cloud blocking Northern Pacific (NOPAC) routes to the southeast of Kamchatka. VAAC Tokyo contributed to this effort by developing exercise VAAs and those in graphical format (VAGs).

2.3 During the exercise, test messages, such as Volcano Observatory Notice for Aviation (VONA), VA SIGMET, VAA/VAG and NOTAM, were issued via AFTN and/or via e-mail. In response to them, operators and ATS units implemented reroute operations.

2.4 The most significant challenge in VOLKAM13 was convening of teleconferences aiming at facilitating Collaborative Decision Making (CDM) among organizations concerned. The teleconferences were held after issuance of VAAs/VAGs, and attendees exchanged information on the situation of ash cloud and consequent reroute.

3. Outcomes of VOLKAM13

3.1 To summarize the conclusions of VOLKAM13, a debrief meeting was held in ICAO EUR/NAT regional office on 19 February 2013. Lessons learned and corresponding recommendations were submitted to the meeting and discussed. The agreed recommendations were listed as tasks in an action plan to be dealt with by participants.

3.2 Main findings on ATM operations were that direct and more flexible coordination needs to be established between adjacent ATMCs/ACCs.

3.3 Teleconferences proved useful, however, should be improved (background noise, style should be as clear and concise as possible) and considered for real-time events taking into account CDM.

3.4 Regarding providers such as VAACs, the preferable improvements of their products were identified. Most of them are, however, to be addressed in IAVWOPSG, and the debrief meeting invited VAACs Tokyo and Anchorage to monitor the group's discussion.

3.5 Noting that the targeted area includes three different ICAO regions: EUR, APAC and NAM, the debrief meeting decided to forward inter-regional issues revealed by VOLKAM13 to the Cross Polar Working Group (CPWG). Based on outcomes of the tasks, CPWG will also consider adaptation to the ATM VACP template for use in the region targeted in this exercise, which would need approval by the respective planning and implementation regional groups (PIRGs).

3.6 Since CPWG is not an ICAO body, the developments from this group could be considered at an inter-regional meeting such as the Trans-Regional Airspace and Supporting ATM Systems Steering Group (TRASAS).

3.7 More detailed outcomes are available in the VOLKAM13 Debrief Report posted at the website of ICAO EUR/NAT regional office¹, as well as the Exercise Directive.

4. Action by the Meeting

4.1 The meeting is invited to note the information contained in this paper.

¹ http://www.paris.icao.int/Met/Volc_Ash/east-volcexsg-volkam13.htm