



International Civil Aviation Organization

**THE THIRTEENTH MEETING OF ASIA/PACIFIC ROBEX  
WORKING GROUP (ROBEX WG/13) and FIFTH MEETING OF  
METEOROLOGICAL HAZARDS TASK FORCE (MET/H TF/5)**

Seoul, Republic of Korea, 18 March 2015

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**Agenda Item (conjoint session) 2: SIGMET and advisory information**

**REPORT OF VOLKAM14 AND AIM OF VOLKAM15**

(Presented by Japan)

**SUMMARY**

This paper presents outcomes of a Volcanic Ash Exercise in Kamchatka in 2014 called VOLKAM14 and the aim of VOLKAM15 which is to be conducted on 15-16 April 2015.

**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 The first Volcanic Ash Exercise in Kamchatka in 2013 called VOLKAM13 was conducted on 15-16 January 2013 with an objective to consider adapting the ATM VACP template for this region based on the exercise conclusions. It was successfully done with participants such as Air Navigation Service Providers (ANSPs), ATM Centres, Aeronautical Information Services (AIS), Volcano Observatories (VOs), Volcanic Ash Advisory Centers (VAACs), Meteorological Watch Offices (MWOs) and users, especially in terms of identification of issues in contingency operations by exercise participants.

1.5 Based on the outcomes of VOLKAM13, the second volcanic ash exercise of VOLKAM14 was conducted with objectives to demonstrate coordination procedures between all participating parties, tactical re-routes, handover between VAACs Tokyo and Anchorage, transmission of air-reports on volcanic ash in accordance to Annex 3 and information sharing via teleconferences and website.

1.6 VOLKAM14 was conducted on 4-5 March 2014 and the third exercise, VOLKAM15, is scheduled to be held on 15-16 April 2015.

## 2. DISCUSSION

2.1 For VOLKAM14, an exercise scenario was drawn up which simulates a major eruption of Bezymianny and an ash cloud expanding far east from Kamchatka. During the exercise, test messages such as Volcano Observatory Notice for Aviation (VONA), VA SIGMET, VAA and Notice to Airmen (NOTAM) were issued via AFTN and/or via e-mail. In response to them, operators and Air Traffic Services (ATS) units implemented reroute operations. A teleconference was also taken among organizations concerned around two hours after the eruption to discuss the latest situation.

2.2 VOLKAM14 was the first exercise that practiced the use of contingency routes and procedures between Petropavlovsk-Kamchatsky and Fukuoka FIRs as per an exercise letter of agreement between the Russian Federation and Japan. Additionally, it demonstrated the correct routing of special air-reports on volcanic ash from Air Control Centre (ACC) to MWO to VAAC as well as SADIS and WIFS. Handover between VAACs Tokyo and Anchorage was also successful. The details of the handover procedure are shown in ROBEX WG/13 MET/H TF/5 – IP/C3.

2.3 For further improvements, the need of continued work on establishing contingency procedures is noted as one of the tasks on ATM operations. As a VAAC's duty, handover procedures between VAACs Tokyo and Anchorage are to be improved to reduce the time of handover. It is also noted that the necessity to assure that special air-reports in real-time are disseminated in the same manner as in the exercise.

2.4 Based on the outcomes of VOLKAM14, a scenario of VOLKAM15 is prepared among the participants.

2.5 During VOLKAM15, a hypothetical volcanic ash cloud will cover a part of Fukuoka FIR and move to the east migrating from VAAC Tokyo's area of responsibility into VAAC Anchorage's. As the ash cloud during VOLKAM14 did not cover Fukuoka FIR, VOLKAM15 brings an opportunity for the Japan Civil Aviation Bureau to conduct a new coordination with related parties. VAACs Tokyo and Anchorage will conduct a collaborative decision analyses and forecast (CDAF) using a chat system to achieve consistent VAA issuance before and after a handover. It will be conducted in addition to the handover procedure tested on VOLKAM14, to see the possibility and effectiveness of close communication between VAACs, one of whose mother tongue is not English. In addition, from VAAC Tokyo's side, trial T+24 hour forecast is to be provided, which is an ongoing trial task in the framework of the International Airways Volcano Watch (IAVW). From VAAC Tokyo's side, one of the aims on VOLKAM15 is to obtain users' feedback how/if the T+24 hour forecast is useful. This forecast is available on VAAC Tokyo's website: [http://ds.data.jma.go.jp/svd/vaac/data/T24/vaac\\_list\\_T24.html](http://ds.data.jma.go.jp/svd/vaac/data/T24/vaac_list_T24.html)

2.6 Outcomes of VOLKAM15 will be reported in a debrief meeting in April 2015.

**3. ACTION BY THE MEETING**

3.1 The meeting is invited to:

- a) note the information provided in this paper; and
- b) provide comments.

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