

Eighteenth Meeting of the Cross Polar Trans East Air Traffic Management Providers' Work Group (CPWG/18)

(Paris, France, 16-19 December 2014)

Agenda Item 5: Provide Status on CPWG/17 Actions

Update on the VOLKAM/15 Volcanic Ash Exercise

(Action Item CP17-02)

(Presented by Civil Aviation Bureau, Japan)

SUMMARY

This paper presents information on outcomes of the fifth meeting of the Volcanic Ash Exercises Steering Group for the (far) eastern part of the EUR Region, which was held in Petropavlovsk-Kamchatsky, the Russian Federation during 5 – 7 August 2014. Participants reviewed the latest exercise VOLKAM14 and discussed a scenario for the next exercise VOLKAM15 scheduled for April 2015.

1 Introduction

- 1.1. Volcanic ash exercise in Kamchatka in 2014 (VOLKAM14) was conducted during 2100 UTC 4 March – 0400 UTC 5 March 2014. Led by the ICAO EUR/NAT Office in Paris, volcano observatories, volcanic ash advisory centers (VAACs), meteorological watch offices (MWOs), air control centers (ACCs), airlines and other related organizations of the Russian Federation, the United States and Japan participated in the VOLKAM14.
- 1.2. Fukuoka ATMC and Petropavlovsk-Kamchatsky Area Control Center coordinated in advance how to take a detour to avoid volcanic ash, concluded an assumed LOA in which operation method is described clearly and took part in the VOLKAM14. Well prepared in this way, they could flexibly respond to the request from an aircraft in the air for a detour crossing the Flight Information Region (FIR) boundary between Russia and Japan. This successful achievement is a big step for an enhanced aviation operations between Russia and Japan.
- 1.3. After the VOLKAM14, a debrief meeting was held at the ICAO EUR/NAT Office in Paris in March 2014. The participants reviewed the exercise and drew up a rough scenario of the next exercise VOLKAM15.
- 1.4. The fifth meeting of the Volcanic Ash Exercises Steering Group for the (far) eastern part of the EUR Region (EUR (EAST) VOLCEX/SG5) was held in Petropavlovsk-Kamchatsky, the Russian Federation, during 5 – 7 August 2014. Twenty-five participants attended the meeting from the ICAO EUR/NAT Office in Paris and APAC Office in Bangkok, IATA, American Airlines and volcano/air-traffic control related organizations of the Russian Federations and Japan. Improvements based on the lessons learned from the previous exercises of VOLKAM13 and 14 were discussed in the meeting. The scenario of VOLKAM15 was also discussed and modified to be more practical and realistic.

2 The activity report of the EUR (EAST) VOLCEX/SG/5

- 2.1. The development noted in the meeting was a T+24 VAG forecast provision on a trial basis. This trial was agreed upon by the IAVWOPSG and all VAACs are supposed to provide the T+24 VAG forecast on their websites from 1 July 2014 until the end of 2014. Users are invited to provide feedback on the usefulness of the forecast particularly for planning of long flights. The results and users' input will be discussed at the IAVWOPSG/9 meeting.
- 2.2. VAAC Tokyo consulted with participants about some consolidated volcano names, for which the volcanoes are recognized as individual ones in Japan but combined in one group in the new database. The use of the new database has lots of merits, however, the meeting confirmed the consolidated names are not user friendly and could pose confusion in performing flight planning, or could even cause difficulty in automated systems if there are string length limitations. It was agreed that VAAC Tokyo will contact with ICAO to modify the database for this part.
- 2.3. VAAC Tokyo also introduced its current operations in which it issues VAA/VAG every 3 hours instead of every 6 hours as a trial, if requested by domestic airlines or related ATC facilities under a large-scale eruption. This contributes to a more flexible flight planning and a tactical decision making, for example, shortening the flight path necessary to avoid volcanic ash. This trial was encouraged by the participants, especially by American Airlines. Criteria for this operation such as an ash plume height is to be investigated and VAAC Tokyo calls for users' thoughts.
- 2.4. The use of an aviation colour code in VAA was also a topic in this meeting. VAAC Tokyo showed its stance to postpone the start of using colour code because the colour code indicates the volcanic activity which is not linked to the current/future ash plume height and may confuse airlines in making decisions how/whether or not to take a detour. More investigation and discussion involving users will be indispensable for the operational use.
- 2.5. Fukuoka ATMC proposed a re-routing plan, more effective than the detour taken in the VOLKAM14 based on the assumed LOA, and suggested its use in the VOLKAM15. Detailed operation method is to be coordinated among the MATMC and the Anchorage ARTCC, then, an assumed LOA only valid during the VOLKAM15 will be concluded. Details of the re-routing plan are explained in Working Paper to this meeting.

3 VOLKAM15 Outline

3.1. The outline of VOLKAM15 was planned through the meeting as follows:

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| Exercise duration: | 2200 UTC 15 Apr 2015 – 0400 UTC 16 Apr 2015 |
| Volcano: | Ksudach (located in Kamuchatka Peninsula, Russia) |
| Summit elevation: | 3539 ft (1079 m) |
| Volcanic cloud height: | 51,000 ft (15.5 km) a.s.l. |
| Area of volcanic ash cloud: | over the NOPAC region in Fukuoka FIR |
| Participating agencies: | ICAO (EUR/NAT), airlines, KVERT, AVO, MWOs (Yelizovo Airodrome MET Center, Anchorage MWO), VAACs (Tokyo VAAC, Anchorage VAAC), ATMCs (MATMC of Russia, FukuokaATMC, US ATCSCC), ACCs (Anchorage ARTCC, Oakland Center(TMO), Khabarovsk ACC, Magadan ACC, Petropavlovsk-Kamchatsky ACC and Sapporo ACC), NOFs (Moscow, FAA U.S. NOTAM Office) and other related agencies (could be modified by the exercise) |

4. Action by the Meeting

4.1 The Meeting is invited to note the information provided in this paper.