



*International Civil Aviation Organization*

## **INFORMATION PAPER**

### **TWENTIETH MEETING OF THE METEOROLOGY SUB-GROUP (MET SG/20) OF THE ASIA/PACIFIC AIR NAVIGATION PLANNING AND IMPLEMENTATION REGIONAL GROUP (APANPIRG)**

*Bangkok, Thailand, 6 – 9 June 2016*

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#### **Agenda Item 6: Research, development and implementation issues in the MET field**

##### **6.3 MET/ATM coordination**

#### **RECENT PROGRESS ON APAC VOLCANIC EXERCISE (VOLPHIN)**

(Presented by Japan)

#### **SUMMARY**

This paper presents a summary of the Asia/Pacific Volcanic Ash Exercises Steering Group (APAC VOLCEX/SG) of the Meteorological Sub Group (MET SG) of the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG) and its third Volcanic Ash Exercise (VOLPHIN16/02).

#### **1. INTRODUCTION**

1.1 Guidance material for conducting volcanic ash exercises in ICAO regions was introduced in 2010 in ICAO Doc 9766 - Handbook on the International Airways Volcano Watch (IAVW), Second Edition 2004; Appendix F - Guidance for Conducting Volcanic Ash Exercises in ICAO Regions, based on the recommendation from the ICAO International Volcanic Ash Taskforce.

1.2 In accordance with Decision 25/47 of the Twenty-Fifth Meeting of Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG/25) in 2014, the Asia/Pacific Volcanic Ash Exercises Steering Group (APAC VOLCEX/SG) was established under the MET Sub-Group.

1.3 The first meeting of the APAC VOLCEX/SG was held in Manila, the Philippines, from 27 to 29 May 2015 and was attended by participants from six States, one Special Administrative Region of China and three International Organizations, including Australia, Hong Kong China, Indonesia, Japan, Malaysia, the Philippines, Singapore, the International Air Transport Association (IATA), the International Federation of Air Line Pilots' Associations (IFALPA) and ICAO. The meeting information is available at : [http://www.icao.int/APAC/Meetings/Pages/2015-VOLCEX\\_SG1.aspx](http://www.icao.int/APAC/Meetings/Pages/2015-VOLCEX_SG1.aspx)

1.4 The meeting reviewed the APAC VOLCEX/SG Terms of Reference which was adopted by Decision 25/47 of APANPIRG/25 and shared the current situation and efforts taken by relevant States and organizations, as well as initiatives in conducting volcanic ash exercises for European and North Atlantic Regions.

1.5 The meeting agreed to adopt an approach in which the scope of volcanic ash exercises was incrementally expanded and to focus on the Manila FIR in the scenario for the first ICAO volcanic ash exercise in the APAC Region to involve a reasonably small group of participants. The meeting also agreed that future exercises would be based on scenarios involving volcanos in the Philippines and Indonesia.

1.6 Participants developed a scenario, aims and objectives, and necessary procedures for the first exercise, and they were formalized in the Exercise Directive for Volcanic Ash Exercise VOLPHIN15/01, which was successfully conducted on 11 August 2015.

1.7 The second meeting of the APAC VOLCEX/SG was held in the ICAO Regional Office, Thailand from 14 to 16 September 2015, which included a debriefing meeting for the first exercise, VOLPHIN15/01, and the planning meeting for future exercises. The meeting was attended by twenty-eight participants from seven States and three International Organizations, including Australia, Indonesia, Japan, the Philippines, Singapore, Thailand, IATA, IFALPA and ICAO. The meeting information is available at: <http://www.icao.int/APAC/Meetings/Pages/2015-VOLCEX-SG2.aspx>

1.8 In view of the discussion in APAC VOLCEX/SG1, two exercise breakout groups, one is for the Philippines and the other is for Indonesia, were formed, and both groups developed exercise scenarios based on the outcomes from the first exercise and recommendation, including appropriate preparation and information sharing for exercise and updating relevant materials. Considering the discussion, the meeting decided to conduct the second exercise in the Jakarta and Ujung Pandang FIRs, Indonesia, in February 2016, followed by the third exercise in August 2016 witha volcano in the Philippines.

1.9 The second exercise, VOLPHIN16/01, was conducted from 16 to 17 February 2016, based on a simulated eruption of Mt. Merapi in Indonesia. The outcome of the second exercise was reported in the third meeting of the APAC VOLCEX/SG, which was held in the ICAO Regional Office, Thailand, from 14 to 16 March 2016. The meeting information is available at; <http://www.icao.int/APAC/Meetings/Pages/2016-VOLCEX-SG3.aspx>

## **2. DISCUSSION**

2.1 The APAC VOLCEX/SG, which is the first ICAO framework to conduct volcanic ash exercises for the APAC Region, has conducted two exercises. Through the two exercises, some operational tasks to improve were identified as the outcomes and participating parties started to address them.

2.2 As an example, the exercises were found out to be useful opportunities for participants to practise immediate issuance and delivery of information on volcanic eruption and ash. Not only the operational procedures, it was agreed that the regular update of contact information (e.g. AFTN address) of relevant bodies is indispensable for dissemination of volcanic ash-related information.

2.3 In addition, participants realized that back-up methods (for continuous operations?) are necessary to be prepared in case of electricity failure, communication interruption and so on.

2.4 Communication and coordination among participating bodies were enhanced through the exercises and some of the coordination procedures have been operationally implemented. More close communication and coordination are expected.

2.5 The third exercise, VOLPHIN16/02, will be held on 18 August 2016. Based on the lessons learned and outcomes from the previous exercises, the exercise scenario has been elaborated and will focus on a volcanic eruption involving multiple FIRs to provide an opportunity for more expansive and complex training with participants. Detailed information including the Exercise Directive will be distributed via a State Letter from Regional Office, at least one month before the exercise.

2.6 As discussed above, the VOLPHIN framework has been successfully implemented with cooperative work done by participating organizations. For further improvements, more practical exercises would eventually be planned with more complicated scenarios in future, like the case of the catastrophic eruption at the Mt. Pinatubo in 1991.

### **3. ACTION BY THE MEETING**

3.1 The meeting is invited to:

- a) note the information contained in this paper; and
- b) discuss any relevant matters as appropriate.

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