



International Civil Aviation Organization

**SECOND MEETING OF THE ASIA/PACIFIC (APAC) VOLCANIC ASH
EXERCISES STEERING GROUP (VOLCEX/SG/2)**

Bangkok, Thailand, 14 – 16 September 2015

Agenda Item 6: Any Other Business

DRAFT RECOMMENDATIONS ARISING FROM VOLPHIN 15/1 AND VOLCEX/SG/2

(Presented by the Secretariat)

SUMMARY

This paper presents draft recommendations arising from the VOLPHIN 15/1 exercise and the VOLCEX/SG/2 meeting, for the consideration of the Steering Group.

1. Consolidated List of Recommendations from WP/SP presented to VOLCEX/SG/2

Lessons Learned and Recommendations (SP/01 – VAAC Tokyo)

1.1 Create a list of:

- AFTN Addresses to distribute VAA/VAGs.
- Routing of NOTAM.
- possible headers, especially for pilot reports.

1.2 Share preparation status of each organization.

- E.g. creating a check sheet periodically to see if any items are delayed;
- Coordinating message details to prepare consistent information is necessary

1.3 Share plans how to distribute information

- Exercise should not impact a real operation

1.4 Decide whether or not to close (virtual only!!) airspace during the exercise after fully understanding the current regulations.

1.5 Monitor the exercise in real-time via website

- Creating a website for issuance of all the messages
 - Who? Secretariat? A certain agency on behalf of Secretariat?
 - Reporting to the Secretariat is also required.

- 1.6 Conduct a CDM meeting based on a script
- Creating a script (see sample script from secretariat)
- 1.7 Optional inquiry
- Do we need a special advisory number at exercises
 - E.g. VAA/GAG uses 9999/#, SIGMET for Fukuoka FIR uses Z99 as recommended in the SIGMET Guide in APAC Region.
- 1.8 After Exercise
- Confirm if information is distributed/received correctly
 - Reporting to the Secretariat
 - Take appropriate actions for improvements

Report on VOLPHIN 15/01 (WP/08 – Philippines)

- 1.9 Providing an internet connection dedicated for volcanic ash exercise participants, i.e. ACC, ATFM and NOF
- 1.10 The procedure of NOF during absence of internet connections should be enhanced. EAD should be informed using the fastest means such as telephone, as regards to the status of internet connection of NOF. Thereby, EAD will be immediately informed that NOTAM proposals or requests will be received in the AFTN.
- 1.11 Encourage VO to actively take part in the planning and actual volcanic exercise.
- 1.12 *Added by Secretariat-* Ensure participating agencies have up-to-date contact lists to support their functions – the contact details for Manila ACC held by VONA was not according to the listed details in the latest directives.
- 1.13 The exercise directive should include information on how the airline operators are supposed to send the air-reports.
- 1.14 The report of VAAC on the capability of their system in receiving air-reports should likewise be addressed.
- 1.15 It is suggested that the directives should include the use of other means of communication such telephone and/or fax.
- 1.16 The exercise was heavy on the use of computers. ACC and MWO should have prepared 2 or 3 laptops and to connect one of them to a printer.
- 1.17 To avoid unnecessary apprehensions to the airlines, a more effective way of informing them should be utilized. The airline association could be tapped to inform their members on the planned exercise.
- 1.18 The online chat proved helpful as advice on problems encountered can be reported immediately. However, the exercise directive should be very clear on how the teleconference and online chat should be conducted.

1.19 The VOLPHIN sheet should be distributed in advance, preferably together with the directives.

Review of VOLPHIN 15/01 (WP/01 – Secretariat)

1.20 Recommendation 1: Volcanic Ash Exercise Directive

Review and update the volcanic ash exercise directive for future ICAO APAC volcanic ash exercises in order to:

- a) Ensure the location and communication strategies for the coordination activity are selected to facilitate discussion and decision-making necessary between the Exercise Leader/s and Secretariat;
- b) Ensure the communication strategies for the coordination activity are selected to facilitate discussion with all participants as necessary and to provide the most reliable and effective means of conducting the CDM discussions;
- c) Ensure the ‘trigger’ mechanism (e.g., a specified time, action, signal, etc.) for issuance of volcanic ash exercise messages is clearly stipulated in the schedule of volcanic ash exercise actions;
- d) Ensure all volcanic ash exercise messages are issued based precisely on the examples or templates published in the exercise directive, as agreed by the providers and users of the information concerned;
- e) Ensure all volcanic ash exercise messages reflect the required information provided in the triggering messages, including reports of volcanic eruptions, volcanic activity and volcanic ash;
- f) Ensure the list of actions is agreed by the relevant suppliers and users of information concerned sufficiently in advance of the exercise to enable participants to confirm their participation and actions prior to the exercise;
- g) Ensure the aims, objectives, strategies and instructions for the exercise teleconference activity are clarified to facilitate improved collaborative decision making; and
- h) Provide adequate notification to ensure all AOs operating in the affected area are informed of the planned exercise.

1.21 Recommendation 2: Provision of Volcanic Ash Information

Volcano observatories, volcanic ash advisory centres, meteorological watch offices, area control centres and NOTAM offices concerned review the applicable global and regional guidance as necessary and ensure that volcanic ash-related information is:

- a) Exchanged in accordance with the applicable requirements (including up-to-date recipient addresses); and
- b) Formatted in accordance with the applicable requirements.

Distribution of Meteorological Messages (WP/02 – Japan)

1.22 Recommendation 2/x – Volcanic ash information guidance material

Review and update as necessary APAC FASID Table MET 3B and ICAO Doc 9766, *Handbook on International Airways Volcano Watch (IAVW)*, Part 2 to reflect current requirements for the distribution of advisory information on volcanic ash to MWO and ACC locations

1.23 Recommendation 2/x – Volcanic Ash Exercise Directive

Review and update the volcanic ash exercise directive in order to ensure the transmission and reception of exercise messages (including VAAs) is confirmed by all relevant exercise participants.

1.24 Recommendation 2/x – Volcanic ash information guidance material

Develop a list of AFTN addresses and WMO headings for special air-reports for volcanic ash (in States concerned), which are required to be relayed from MWOs to VAACs

2. Recommendations to be Proposed to other Groups through the Secretariat.

2.1 Regulatory provisions for response to volcanic ash contingency events

In accordance with the guidance provided in ICAO Doc 9974 – *Flight Safety and Volcanic Ash*, States ensure that:

1. Regulations are in place requiring aircraft operators to include in their SMS an identifiable safety risk assessment for operations into airspace forecast to be, or at aerodromes known to be, contaminated with volcanic ash; and
2. Regulatory organizations develop safety oversight procedures for the evaluation of operators' capability to conduct flight operations safely into airspace forecast to be, or aerodromes known to be, contaminated with volcanic ash;

2.2 Airspace and Airport Management in response to volcanic eruption and volcanic ash cloud.

Recognizing the guidance provided in ICAO Doc 9974 – *Flight Safety and Volcanic Ash* and the provisions of ICAO Doc 4444 – *PANS-ATM* 15.8.1 (c and Note 2):

1. Airspace affected by volcanic ash cloud should not be 'closed';
2. Specification in NOTAM of alternate routing or other air traffic flow management (ATFM) measures to manage airspace constraints arising from volcanic ash cloud should be solely for the purpose of ensuring the predictability and regularity of air traffic, and should be based on an assessment of capacity and demand in airspace affected by volcanic ash and/or by aircraft avoiding the volcanic ash cloud.
3. NOTAM specifying alternate routing or other ATFM measures related to a volcanic eruption or volcanic ash cloud should be issued separately from the ASHTAM/NOTAM issued in accordance with Annex 15 5.1.1.1 (r and u);

4. Aerodromes should only be closed by NOTAM for periods of observed volcanic ash contamination of the surface of the aerodrome movement area;
5. Airport capacity limitations of alternate aerodromes, including apron capacity, should be considered, and recommendations for the use of other alternates considered for inclusion in NOTAM raised under 3.
6. If required by State regulations, any declaration of a Danger Area or Restricted Area should be confined to the pre-eruptive or erupting volcano and the area containing its forecast or observed ejecta.

2.3 Regular Updates of Information

That ***Conclusion APANPIRG/26-xx: Volcanic Ash Information Coordination and Collaboration*** be supported by review and, where necessary, amendment of the *Contingency Plan Coordination and Operations Function* provisions and performance objectives of the Regional ATM Contingency Plan.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this paper;
- b) assign any necessary tasks arising from the recommendations;
- c) update the exercise directive and its templates in accordance with agreed recommendations;
- d) agree to forward recommendations as necessary for the consideration of other APAC groups for consider
- e) discuss any relevant matters as appropriate.

Appendix: APANPIRG Conclusion, and Excerpt from ATM Contingency Plan.

Conclusion APANPIRG/26-xx: Volcanic Ash Information Coordination and Collaboration

That, States are urged to:

- a) establish a mechanism to provide regular and timely updates of information during a volcanic eruption and/or ash cloud event to ensure all stakeholders are up to date with current information, situation reports and contingency planning;
- b) participate in volcanic ash exercises; and
- c) consider establishing an internal crisis management centre where applicable to support the collaborative and timely sharing of information such as volcanic eruptions, or other crises that will have a significant impact on airport and/or airspace management.

Note: This is supplemental to the provisions of Annex 3 and Annex 15.

Excerpt from draft Regional ATM Contingency Plan

Contingency Plan Coordination and Operations Functions

5.8 Each State should establish an ATM contingency Central Coordinating Committee (CCC) function for the development, maintenance, activation and conduct of contingency plans, and for the forming and convening of an ATM Operational Contingency Group (AOCG) function.

5.9 The Central Coordinating Committee function should include relevant representation from the Regulatory Authority, Air Navigation Service Provider, Military Authority, Other relevant national authority, airspace user representatives, airport authorities meteorological authority, airport authority and other relevant authorities and agencies.

5.10 The ATM Operational Contingency Group (AOCG) function should be convened by the CCC with a primary responsibility to oversee the day to day operations under the contingency arrangements, and coordinate operational ATS activities, 24 hours a day, throughout the contingency period. The terms of reference of the AOCG will be determined by the CCC. The AOCG function will include any necessary specialist input from the following disciplines:

- Air Traffic Control (ATC)
- Aeronautical Telecommunication (COM)
- Aeronautical Meteorology (MET)
- Aeronautical Information Services (AIS)
- ATS equipment maintenance service provider

- 5.11 The AOCG functions shall include:
- i) review and update of the Contingency Plan as required;
 - ii) keep up to date at all times of the contingency situation;
 - iii) organize contingency teams in each of the specialized areas;
 - iv) keep in contact with and update all affected airspace and system users, customers and other relevant stakeholders;
- (Note: Annex 11 provides guidelines for coordination of contingency matters with ICAO)
- v) exchange up-to-date information with the adjacent ATS authorities concerned to coordinate contingency activities;
 - vi) notify the designated organizations of the contingency situation sufficiently in advance and/or as soon as possible thereafter;
 - vii) take necessary action for issuing NOTAMs in accordance with the contingency plan or as otherwise determined by the particular contingency situation. Where the contingency situation is sufficiently foreseeable the relevant NOTAMs should be issued 48 hours in advance of the contingency events, using templates . NOTAM templates are provided in **Appendix X**.

5.12 Terms of reference, and procedures for the activation of the ATM Operational Contingency Group (AOCG) function should be developed.