

REVIEW OF THE WORK PROGRAMME IMPLEMENTATION

Volcanic ash-related activities

(Submitted by the WMO Secretariat)

Summary and Purpose of Document

This document provides an overview of recent and upcoming volcanic ash-related activities.

ACTION PROPOSED

The Management Group (MG) is invited to note the information contained in this paper and to consider the points raised in the context of future work.

1. EXECUTIVE SUMMARY

1.1 Fifth WMO Volcanic Ash Advisory Centre Best Practices Workshop (VAAC BP/5)

1.1.1. The MG was apprised that the 5th WMO Volcanic Ash Advisory Centre Best Practices Workshop (VAAC BP/5) had been held at the Japan Meteorological Agency (JMA) in Tokyo, Japan from 7 to 9 June 2017. The MG was pleased to note that representatives from all nine VAACs had participated in the meeting and that discussions had been held on the following key topics:

- VAAC collaboration tools and IWXXM/XML developments;
- Volcano monitoring and observing issues;
- Key performance indicators;
- VAA/VAG consistency;
- Supplementary volcanic ash products; and
- An update on volcanic ash impacts on jet engines.

1.1.2. The MG appreciated that a majority of the fifteen outcomes of VAAC BP/5 had served as direct inputs to ICAO Meteorology Panel (METP) working group meetings that had immediately followed the workshop¹. The MG was informed that the report on the VAAC BP/5 workshop was available online ([here](#)).

1.2 Seventh WMO-IUGG Volcanic Ash Scientific Advisory Group (VASAG/7)

1.2.1. The MG noted that the 7th WMO-IUGG Volcanic Ash Scientific Advisory Group (VASAG/7) had been held at the Cascades Volcano Observatory in Vancouver WA, United States of America from 21 to 23 August 2017. The MG was pleased to note that most of the VASAG members had attended the meeting in person and that a small number of members who had been unable to attend in person had instead joined the meeting periodically via teleconference.

1.2.2. The MG was informed that the VASAG had held discussions on the following key topics, several of which were in direct response to outcomes of the ICAO METP WG-MOG (IAVW) and WG-MISD (VASD) meetings held in June 2017:

- Eruption source term characterization;
- Remote sensing;
- Quantitative volcanic ash contamination information and long-range forecasts;
- Aviation colour code and Volcano Observatory Notice for Aviation (VONA);
- Aircraft encounters (with volcanic ash) database;
- Sulphur dioxide and other toxic gases;
- Other IAVW-relevant scientific developments; and
- Future events including the next International Workshop on Volcanic Ash (IWVA).

1.2.3. The MG was apprised that the VASAG/7 had formulated a total of eight agreed actions and that the report of the meeting was available online ([here](#)).

1.3 Planning for a conjoint VAAC BP workshop and VASAG meeting

1.3.1. The MG was informed that VAAC BP/5 and VASAG/7 had both highlighted that it would be mutually beneficial for the two communities (volcanic ash science and VAAC operations) to convene simultaneously at a future point in time, possibly in 2018, particularly in recognition of the recent and upcoming advances in science and

¹ Working Group on Meteorological Operations Groups (IAVW work stream) (WG-MOG (IAVW)) and Working Group on Meteorological Information and Service Development (Volcanic Sulphur Dioxide work stream) (WG-MISD (VASD)) held from 12 to 14 June 2017 at JMA in Tokyo.

technology (e.g. Himawari-8, GOES-16 and future Meteosat Third Generation) that are of direct relevance to the operations of all nine VAACs.

1.3.2. The MG was pleased to note that the New Zealand MetService had offered to host a volcanic ash meeting in 2018 in Wellington and that planning was now under way to organize a conjoint event during week commencing 5 November 2018. It was also noted that, to maximize use of resources, ICAO was expected to conduct its next METP WG-MOG (IAVW) and WG-MISD (VASD) meetings during the immediately following week (12 November 2018) also in Wellington.

1.4 Planning for the 8th WMO International Workshop on Volcanic Ash

1.4.1. The MG noted that international workshops on volcanic ash (IWVA) had been held every few years to foster scientific and technological advancement in volcanic ash-related issues of importance to aviation. The MG was apprised that the three most recent IWVA convened by WMO in collaboration with ICAO had been in 2010 (Santiago, Chile), 2013 (Citeko, Indonesia) and 2015 (Anchorage AK, USA).

1.4.2. The MG was informed that the VASAG/7 meeting in August 2017 had considered the need for and timing of a future IWVA and had concluded that there was a sufficiently strong justification for convening an IWVA/8 in the 2019 timeframe in view of the breadth of the continuing work being undertaken by the meteorological and volcanological communities in support of the IAVW and acknowledging the strategic direction and evolving needs of aviation as conveyed in ICAO's Global Air Navigation Plan (GANP). In addition, it was noted that the WMO Aeronautical Meteorology Scientific Conference in November 2017 had intentionally *not* dedicated significant attention on volcanic ash issues in view of the scope and frequency of the IWVA events.

1.4.3. The MG was apprised that, as a consequence of the foregoing, the VASAG had commenced the process of developing a concept note for IWVA/8 and the identification of a suitable hosting venue for an event in/around mid-2019.
