



**MET PANEL (METP)  
MET OPERATIONS GROUP (MOG)  
VOLCANIC ASH (VA)**

**SECOND MEETING**

**Buenos Aires, Argentina, 27 to 28 April 2016**

**Agenda Item 4 : Work plan and Activities**  
**Activity 3.11 of the IAVW Workstream : Coverage of the unmonitored area north of the area of responsibility of VAAC Tokyo**

**EXTENSION OF VAAC TOKYO AREA OF RESPONSIBILITY  
TO THE UNMONITORED AREA**

**SUMMARY**

VAAC Tokyo is ready to extend its area of responsibility to the unmonitored area north of N60 between E090 and E150. It has developed software to run a dispersion model and create VAA/VAGs for the area using imagery of polar-orbiting satellites provided by NOAA/NESDIS.

(Presented by Japan)

**1. INTRODUCTION**

1.1 At the seventh meeting of the International Airways Volcano Watch Operations Group (IAVWOPSG), the group noted that the area north of VAACs Toulouse and Tokyo areas of responsibility between 60° east and 150° east was not covered by any VAACs. Concerning the situation that no volcanic ash advisory (VAA) is available in this region, the group concluded as

**Conclusion 7/12 – VAACs areas of responsibility**

That, an ad-hoc group consisting of France (Rapporteur), Canada, Japan, United Kingdom and United States

- a) develop proposals for volcanic ash advisory centre (VAAC) coverage in the area north of the existing VAAC Toulouse and VAAC Tokyo areas of responsibility limiting also on 60° East with VAAC London and on 150° East with VAAC Anchorage; and
- b) report to the IAVWOPSG/8 meeting.

1.2 At the IAVWOPSG/8 meeting, the United Kingdom (VAAC London Provider State) proposed to enlarge the VAAC London area of responsibility to take over the part of the unmonitored area from 60° east to 90° east, north of 71° north and also the area to Northern Europe to cover Finland, Copenhagen, Norway and Sweden FIRs.

**Conclusion 8/11 – Extension of VAAC London area of responsibility**

That VAAC London be invited to extend its area of responsibility to Northern Europe to cover Finland, Kobenhavn, Norway and Sweden flight information regions (FIRs) and the area North of N71 between E060 and E090.

1.3 This proposal left a smaller polar area, north of 60° north between 90° east and 150° east, unmonitored. VAAC Anchorage had been in discussion with VAAC Tokyo concerning possible ways to monitor the remaining area and it was noted that the monitoring of this region would require scientific groundwork (observational coverage) and some more time. The group agreed therefore to task an ad-hoc group to prepare a report for the IAVWOPSG/9 meeting regarding proposals for the monitoring of the referred area. The group formulated the following conclusion accordingly:

**Conclusion 8/12 – Coverage of the unmonitored area north of the area of responsibility of VAAC Tokyo**

That an ad-hoc group composed of VAACs Anchorage, London, Tokyo (as Rapporteur) and Toulouse:

- a) develop a proposal for the coverage of the unmonitored area north of N60 between E090 and E150; and
- b) report back to the IAVWOPSG/9 meeting.

1.4 In a related issue, VAAC Toulouse proposed in the IAVWOPSG/8 meeting to extend its area of responsibility southward from 60° south to the South Pole to cover the only unmonitored area in the southern hemisphere at that time. The group agreed on the proposal. Therefore, currently, only the area north of N60 between E090 and E150 is left unmonitored.

## **2. DISCUSSION**

2.1 Since the IAVWOPSG/8 meeting, VAAC Tokyo had been working on its system update including the upgrade to incorporate the satellite imagery for the unmonitored area into the system. The new system launched on 24 March 2015. In addition, VAAC Tokyo has developed software to run a dispersion model and create VAA and VAG (VAA information in graphical format) for the unmonitored area.

2.2 VAAC Tokyo is principally monitoring imagery of Himawari-8 satellite, but is currently also monitoring the AVHRR Global Area Coverage (GAC) data operationally in order to cover the entire unmonitored area, considering the northern limit of the Himawari-8 coverage is around 75° north. The GAC data is from polar-orbiting satellites available in a few hours, provided by the National Environmental Satellite, Data, and Information Service of the National Oceanic and Atmospheric Administration (NOAA/ NESDIS) in the U.S.

2.3 While the scientific groundwork (observational coverage) and the technique have already been developed and VAAC Tokyo is ready to cover the unmonitored area as its area of responsibility, it has been working on the higher performance for this area. Since February 2016, VAAC Tokyo has started to obtain the local coverage data called LAC data, that is available in a more timely manner. As of March 2016, VAAC Tokyo has been successfully processing the data and is at the last stage to incorporate the data in an operational manner. VAAC Tokyo will soon start using the LAC data adding to GAC data operationally.

### 3. **RECOMMENDATION**

3.1 Given the above and expected discussion during the meeting, it is recommended that the METP-WG/MOG VA/2 adopt the following Conclusion:

#### **Draft Conclusion METP-WG/MOG VA/2/x – Extension of VAAC Tokyo area of responsibility**

That VAAC Tokyo be invited to extend its area of responsibility to the area north of N60 between E090 and E150 this year.

### 4. **ACTION BY THE MEETING**

4.1 The meeting is invited to:

- a) note the information contained in this working paper; and
- b) adopt the Conclusion in paragraph 3.1.

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