



International Civil Aviation Organization

**Eight Meeting of the Communications/Navigation/Surveillance and
Meteorology Sub-Group (CNS/MET SG/8) of APANPIRG**

Bangkok, Thailand, 12-16 July 2004

**Agenda Item 10: Review of the implementation of ICAO warning system
1) international airways volcano watch**

RECENT ACTIVITIES OF JAPAN FOR IAVW

(Presented by Japan)

SUMMARY

This paper provides information on the recent activities of Japan for IAVW.

1. INTRODUCTION

1.1 Japan Meteorological Agency (JMA) is a unique governmental organization that is responsible for geological hazard monitoring as well as meteorological services. JMA has been providing aviation authorities and companies with information on volcanic activities since late 1970s.

1.2 In response to the recommendation of ICAO, Tokyo VAAC started its operations on Volcanic Ash Advisories in March 1997 at Tokyo Aviation Weather Service Center of JMA. Since then, JMA has been improving Tokyo VAAC operations as follows:

- In April 2001, the area of responsibility of Tokyo VAAC was expanded with its western border changed from 100E to 90E.
- In July 2003, Tokyo VAAC started forwarding VA advisories issued by adjacent VAACs to the MWOs in Tokyo VAAC's responsible area with the header of 'FVFE01', when the VA is expected to affect the safety of airborne flight.

2. ABOLITION OF HEIGHT THRESHOLD FOR ISSUING VAA FOR INTERNATIONAL FLIGHTS

2.1 Until November 2003, Tokyo VAAC had issued VAAs when a volcanic plume rises over 5,000m (17,000ft) above sea level taking account that international flights normally use higher levels. The low-level VAAs had been issued for the domestic flights only.

2.2 To comply with the Annex-3 provisions, Tokyo VAAC abolished height threshold of VAA for international flights in November 2003 and has been issuing VAAs regardless of the height of the volcanic ash plume for all the volcanic eruptions within its area of responsibility. All the VAAs include area and forecast of volcanic ash clouds.

2.3 It should be noted that in low altitudes the forecast reliability of winds that carry volcanic ash clouds becomes low because of the effect of topography, etc. It means that the forecasted location of volcanic ash clouds may have larger error in low altitudes. Tokyo VAAC will continue to verify the forecasted distribution of volcanic ash clouds in low altitudes by collecting more examples.

3. IMPROVEMENT OF VOLCANIC ASH DISPERSION OUTLOOK ON AND AROUND JAPAN

3.1 Tokyo VAAC has been using the Meso-scale Model (MSM) of JMA with 10 km horizontal resolution for forecasting volcanic ash dispersion since November 2003, which results in improvement both in spatial and temporal resolution. This improvement is limited on and around Japan because of the limited domain of MSM.

4. PUBLICATION OF A STUDY REPORT ON CD-ROM

4.1 Tokyo VAAC has produced a CD-ROM entitled “Study report of Volcanic Ash Clouds on detection using meteorological satellite imagery”. It includes introduction of Tokyo VAAC, samples of satellite images with detected volcanic ash, the list of volcanos in Japan, and so on. The CD-ROM is scheduled to be published this summer and distributed to the organizations concerned such as VAACs and MWOs.

5. TOKYO VAAC’S WEB SITE

5.1 In December 2003, Tokyo VAAC opened a web site in English which explains its operations. Though it does not contain the latest VAAs at present, they will appear in the web-page until the end of next March. (URL: http://www.jma.go.jp/JMA_HP/jma/jma-eng/jma-center/vaac/index.html)

6. ACTION BY THE MEETING

6.1 The meeting is invited to note the information in this document.

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