



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

SECOND MEETING

Buenos Aires, Argentina, 27 to 28 April 2016

Agenda Item 5: Identification of new and additional tasks

**COORDINATION FOR UPDATING OF VOLCANO DATABASE IN EACH VAAC
BASED ON CHANGES OF THE STANDARDIZED INTERNATIONAL VOLCANO DATABASE**

SUMMARY

Volcanic Ash Advisory Centres (VAACs) use the standardized international volcano database provided by the Smithsonian Institution. However, it has not yet been discussed when to reflect updates of the standardized international volcano database onto each VAAC's database. It would be good to start discussion on this matter and it is also appreciated if the Smithsonian Institution announces when it has made major changes such as volcano numbers and/or names in its database.

(Presented by Japan)

1. INTRODUCTION

1.1 A need of a common international volcano database to be used by VAACs and the Smithsonian Institution was identified during the fifth meeting of the International Airways Volcano Watch Operations Group (IAVWOPSG). The Smithsonian Institution's Global Volcanism Program took the main role of producing a database adapted to VAAC needs, with assistance from the members from the International Union of Geodesy and Geophysics (IUGG) and Canada as well as coordination with VAACs.

1.2 After an extensive work by the Smithsonian Institution and others, it was agreed in the IAVWOPSG/8 meeting that VAACs would use the standardized international volcano database to give users certainty and to remove any confusion with the preceding database; the new database includes Volcano Number, Name, States, Subregion, Summit Elevation and Coordinates. It became effective in 2014 but even after the operational implementation of this database for the preparation of Volcanic Ash Advisories (VAAs), the Smithsonian Institution continues its efforts to amend the database up to date.

2. DISCUSSION

2.1 Among the data in the standardized international volcano database, volcano names and numbers have large impact on users. These are to be consistent between the standardized international volcano database and a database of each VAAC for volcanos in its area of responsibility, though there exists some exceptions, but what is also or more important is to keep them consistent between (especially neighbouring) VAACs considering their coordination.

2.2 One example that highlights the importance of using a consistent volcano name is an event on 30 March 2015 with Sheveluch volcano. The volcano name in the standardized international volcano database was SHIVELUCH at the beginning and was updated to be SHEVELUCH maybe late in 2014. VAAC Tokyo noticed this change and updated its own database on 24 March 2015 but not all VAACs were aware of the change for a while and kept their own database with the name SHIVELUCH. A few days later, volcanic ash from this volcano extended to the south and migrated into VAAC Anchorage's area of responsibility and the VAACs Tokyo and Anchorage conducted a handover. Then, a certain airline informed VAAC Tokyo that its system happened to show an error due to the inconsistent volcano name used in the two VAACs. Being informed, VAAC Anchorage quickly updated its database and this issue was solved.

2.3 Adding to a case of handover, coordination among VAACs is necessary for back-up operations: for example, VAACs Darwin and Tokyo, and/or Wellington, have opportunities to issue VAAs on behalf of each other based on the agreement of mutual back-up cooperation. Volcano numbers and names should be consistent before, during and after back-up operations so the two or more VAACs should keep the same VAAC's databases.

2.4 Considering the importance of using the consistent volcano names and numbers, VAAC Tokyo updated some volcano names in its own database on 3 March 2016 after obtaining agreement among a member of ICAO, other VAACs, an expert in the United States Geological Survey and the Smithsonian Institution.

2.5 This update was done because the standardized international volcano database assigns a number to each volcanic system instead of each volcano and some volcanoes in Japan, which are well known to the public by each name, are combined with "slash" in the standardized international volcano database as shown in the right column of Table 1. Among these volcanoes, Sakurajima has been very active and many VAAs (e.g. 846 in 2015) were issued for Sakurajima with the name of "SAKURAJIMA / WAKAMIKO (AIRA CALDERA)". This had an impact to users and VAAC Tokyo received many requests to separate them. Requests were not only from domestic users but also from participants of the fifth meeting of the Volcanic Ash Exercises Steering Group for the (far) eastern part of the EUR Region in August 2014, in which participants agreed that those volcano names are not user-friendly with comments such as "Cannot deal with too-long names," "Difficult to figure out which volcano has erupted," and "With those volcanoes separated, it may be more convenient and easier to grasp the situation for a meeting before a flight." Respecting the scientific construction of the standardized international volcano database but also thinking highly of user convenience, VAAC Tokyo consulted with the members mentioned above and agreed to separate the volcano names in VAAs using the same volcano numbers as shown in the left column of Table 1 with thorough coordination among VAACs, while the standardized international volcano database will keep the combined names as they are.

2.6 In this way, keeping consistent volcano names and numbers between VAACs is very important; however, currently the timing and contents of the update of the standardized international volcano database is not clear and it is not yet settled when to reflect the change, either: there is a potential

to have some inconsistencies among VAACs. Therefore, it would be good to discuss when to check and reflect changes in it to VAACs' own databases. In addition, if VAACs and other relevant organizations can receive announcement for major changes from the Smithsonian Institution, it is much appreciated.

2.7 The meeting is invited to formulate the following draft recommendation:

Recommendation METP-WG/MOG VA/2/x – Discussion among VAACs about the timing when to reflect changes in the standardized international volcano database

That it would be good to discuss when to reflect changes in the standardized international volcano database to VAACs' own databases in order to keep using the common database among VAACs.

Recommendation METP-WG/MOG VA/2/x – Announcement from the Smithsonian Institution for major changes in the standardized international volcano database

That the Smithsonian Institute announces when it has made major changes in the standardized international volcano database so that VAACs will take actions for their own databases in a timely and consistent manner.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the contents of this paper; and
- b) consider the adoption of the draft recommendations proposed for the meeting's consideration.

Table 1

Volcano No.	Volcano name in VAAC's database	Volcano name in the standardized intl. database
282070	KAIMONDAKE	KAIMONDAKE / IKEDA AND YAMAGAWA
282070	IKEDA AND YAMAGAWA	
282080	SAKURAJIMA (AIRA CALDERA)	SAKURAJIMA / WAKAMIKO (AIRA CALDERA)
282080	WAKAMIKO (AIRA CALDERA)	
282130	YUFUDAKE	YUFUDAKE / TSURUMIDAKE AND GARANDAKE
282130	TSURUMIDAKE AND GARANDAKE	
285040	TARUMAESAN (SHIKOTSU CALDERA)	TARUMAESAN / ENIWADAKE (SHIKOTSU CALDERA)
285040	ENIWADAKE (SHIKOTSU CALDERA)	
285070	MEAKANDAKE (AKAN CALDERA)	MEAKANDAKE / OAKANDAKE (AKAN CALDERA)
285070	OAKANDAKE (AKAN CALDERA)	