



THIRTEENTH AIR NAVIGATION CONFERENCE

Montréal, Canada, 9 to 19 October 2018

COMMITTEE A

Agenda Item 2: Enabling the global air navigation system

2.3: Future provision of aeronautical meteorological service

COLLABORATIVE DECISION MAKING AND INFORMATION SYSTEM IN THE FRAMEWORK OF VOLCANIC ASH HANDLING

(Presented by Indonesia)

EXECUTIVE SUMMARY

This paper presents the procedures and contingency action on facilitation of ATS Routes in the volcanic ash situation for the relevant service providers and airspace user in Indonesia, and the system use to facilitate the various parties in order to precaution of volcanic ash impact on aviation.

Action: The Conference is invited to:

- a) note the information contained in this paper;
- b) discuss the collaborative decision making and system use to overcome the volcanic ash impact to aviation; and
- c) consider the mechanism as a model of volcanic ash handling.

1. INTRODUCTION

1.1 Guidance material for conducting volcanic ash exercise in Indonesia were as follows:

- a) *ICAO Handbook on the International Airways Volcano Watch (IAVW) — Operational Procedures and Contact List (Doc 9766), second edition 2004; Appendix F – Guidance for Conducting Volcanic Ash Exercises in ICAO Regions; and*
- b) *Indonesia Civil Aviation Safety Regulation (CASR) Part 174, Aeronautical Meteorological Information Service – Item 174.65 The Process for handling the impact of volcanic ash.*

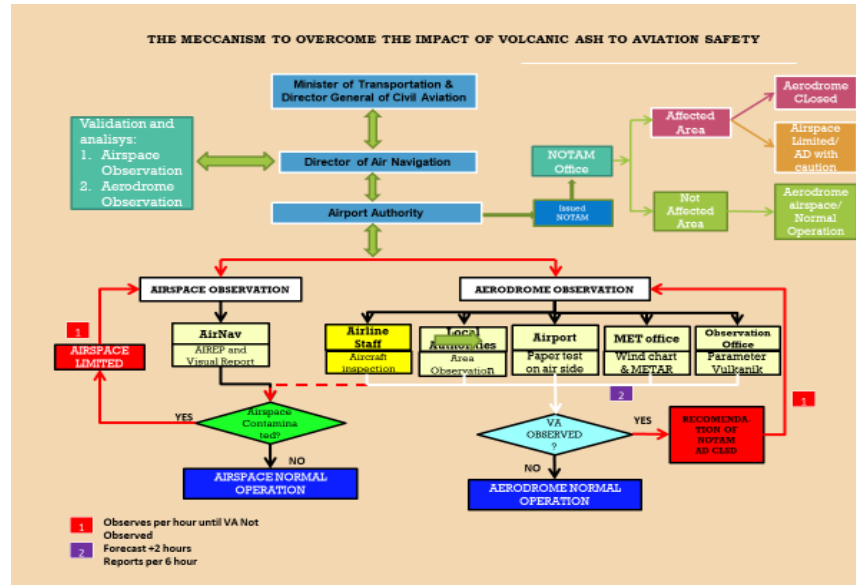
1.2 Indonesia has more than one hundred active volcanoes. Located in The Eurasian Plate, Pacific Plate and Indo-Australian Plate are three active tectonic plates that cause the subduction zones all volcanoes are monitored by volcano observatories operated by the Centre for Volcanology and Geological Hazard Mitigation (CVGHM), Geological Agency, Ministry of Energy and Mineral Resources.



2.9 Information submitted by NOTAM Office will affect the decision of aerodrome closed airspace limited/aerodrome with caution or aerodrome / airspace operating normally and Directorate of Air Navigation convey to the Airport Authority to conduct observation airspace and aerodrome observation.

2.10 The information concerning the aerodrome observation and airspace observation serve as a basic data by Airport Authority to validate and analyze a final decision on opening or closing of aerodrome.

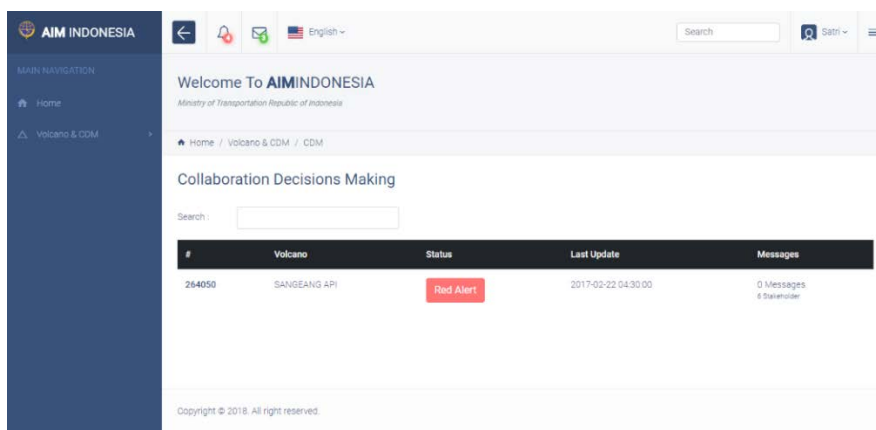
2.11 The mechanism stated above were explained within the flowchart below:



2.12 DGCA - Indonesia has developed a system use as an official platform to volcanic ash exercise namely Integrated Web-based Information System Handling (IWISH) and already received appreciation from the international aviation community. This was stated during the ICAO Volcanic Ash Exercise Steering Group (VOLCEX / SG / 5) trial held from 21 to 22 June 2018, in Bangkok.

2.13 The VAAC Darwin-Australia and VAAC Tokyo were very interested to cooperate and to be integrate within the framework of this system.

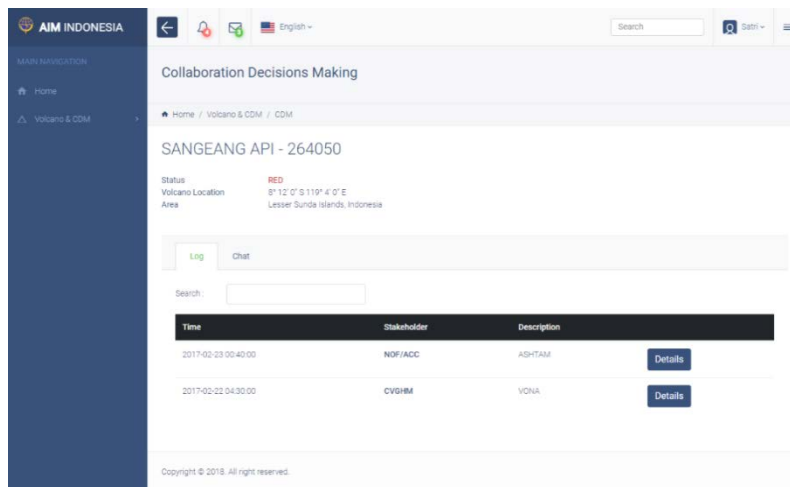
2.14 The system will create the group automatically when VONA is issued by CVGHM or when there is an official report from the related party to the admin. All parties involved will also automatically be invited to the group and will be notified that the party has joined the group and must be vigilant to provide information according to their authority.



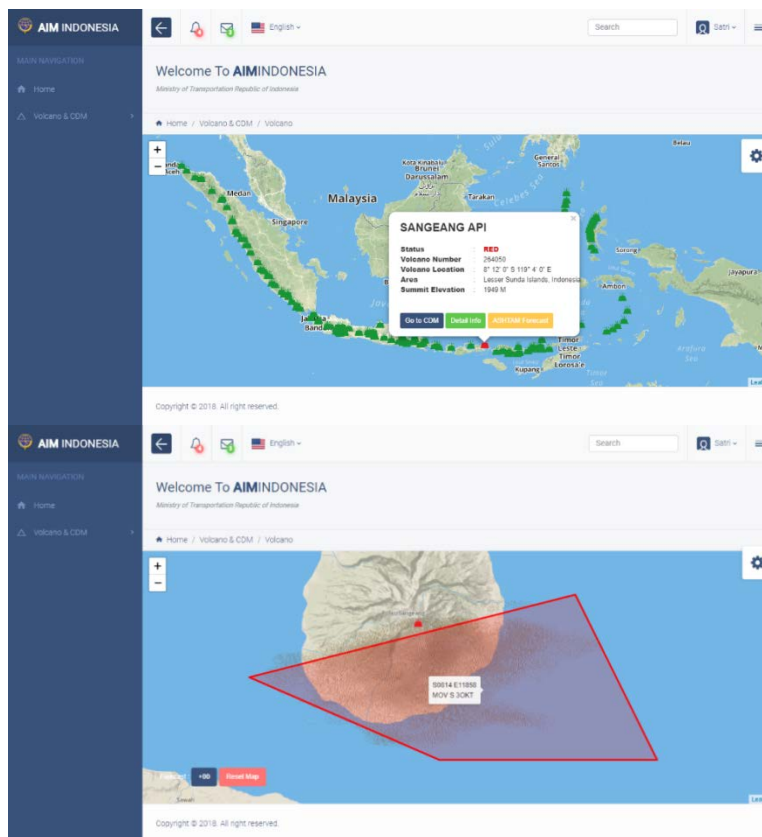
2.15 The system can display log information based on:

- general information sharing;
- log information submitted by each Party concerned;

c) log by format directive.



2.16 The system will also visualize ASHTAM information, which will make it easier to make decisions regarding affected routes and airports.



2.17 The system also provides teleconference facilities, if necessary direct communication with related parties.

2.18 Logs and reports in groups related to the handling of volcanic ash of certain volcanoes will be kept within a certain timeframe to see eruption trends of a volcano.

2.19 The system is still in the process of finalization for integration with flight route data in Indonesia. The system will be trial in August and will be used first in volcanic ash handling exercises in the upcoming APAC Volcex on September 2018.

2.20 Integration with VAAC Darwin related VAA / VAG information will be further coordinated.

3. **CONCLUSION**

3.1 In order to manage and mitigate of volcanic eruptions to ensure the flight operations and safety, Indonesia developed a collaborative decision-making mechanism and information system in the framework of volcanic ash handling. The stakeholders involved are Directorate General Civil Aviation, Airport Authority, MET Authority, Air Navigation Service Provider and Airline.

3.2 Indonesia has developed a system use as an official platform to volcanic ash exercise namely Integrated Web-based Information System Handling (IWISH).

3.3 The Conference needs to discuss a collaborative decision making system to mitigate the volcanic ash effect to aviation; and consider to adopt the discussed mechanism as a model of volcanic ash mitigation to Civil Aviation.

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