



**MEETING OF THE METEOROLOGY PANEL (METP)
MET OPERATIONS GROUP (WG-MOG)
VOLCANIC ASH (VA)**

SECOND MEETING

Buenos Aires, Argentina, 27 to 28 April 2016

Agenda Item 4: MOG Work plan and activities

MODIFICATION OF ANNEX 3 : DESCRIPTION RELATED TO “RE-SUSPENDED ASH”

SUMMARY

Volcanic ash is not only from a new volcanic eruption but re-suspended ash can also affect aviation safety. Considering the importance of information provision related to re-suspended ash, minor modifications of the ANNEX 3 will be preferable.

(Presented by Japan)

1. INTRODUCTION

1.1 Volcanic ash can seriously affect air services by causing various issues such as engine failure, poor visibility due to ash-related scouring of aircraft windshields and take-off/landing delays due to ash accumulation at airports. Volcanic ash in airspace is mostly due to volcanic eruptions; however, volcanic ash from past eruptions sometimes drifts in the air again due to a strong wind. This phenomenon is called re-suspension and re-suspended ash has also an impact to aircrafts.

1.2 Therefore, VAACs are taking efforts to issue VAAs in case of re-suspension considering the aviation safety against volcanic ash. Some VAACs already have an experience of VAA issuances for re-suspended ash. In addition, a certain MWO also issued SIGMETs for re-suspended ash in the past.

1.3 However, the ANNEX 3 (AMD76) has not yet included operations related to re-suspension in some parts of the description; for example, the definition of VAAC is described as “... (omitted)... volcanic ash in the atmosphere following volcanic eruptions.” If it could be like “... (omitted) ... volcanic ash in the atmosphere following volcanic eruptions or re-suspended ash,” it will reflect the real operations more appropriately.

2. DISCUSSION

2.1 Adding to the definition of VAAC, some more parts could be modified in the ANNEX 3 considering the necessity of information provision such as SIGMET in case of re-suspension. The examples are in Table 1.

2.2 An expression of “VA CLD” may be enough for some users as the most important information is whether volcanic ash is in the air or not, regardless of their origin. However, it is also important for some users to know if the volcanic ash is due to a new eruption or re-suspended ash.

2.3 Volcanic ash clouds from a new eruption at some volcanos are not very high, so it is not always easy to identify if they are due to a new eruption or not, only from the altitude of the ash.

2.4 In this meaning, it will be better to consider minor modifications for this issue in the ANNEX 3 in the near future.

Table 1

Section	Current expression	Possible modification
APPENDIX 2 1.3.3 Items included in SIGWX forecasts	i) information on the location of volcanic eruptions that are producing ash clouds of significance to aircraft operations comprising: volcanic eruption symbol at the location of the volcano and, in a separate text box on the chart, the volcanic eruption symbol, the name of the volcano (if known) and the latitude/longitude of the eruption. In addition, the legend of SIGWX charts should indicate “CHECK SIGMET, ADVISORIES FOR TC AND VA, AND ASHTAM AND NOTAM FOR VA.”	i) information on the location of volcanic ash or volcanic eruptions that are producing ash clouds of significance to aircraft operations comprising: volcanic eruption symbol at the location of the volcano and, in a separate text box on the chart, the volcanic eruption symbol, the name of the volcano (if known) and the latitude/longitude of the eruption. In addition, the legend of SIGWX charts should indicate “CHECK SIGMET, ADVISORIES FOR TC AND VA, AND ASHTAM AND NOTAM FOR VA.”
1.3.4 Criteria for including items in SIGWX forecasts	d) where a volcanic eruption or a release of radioactive materials into the atmosphere warrants the inclusion of the volcanic eruption symbol or the radioactive materials in the atmosphere symbol in SIGWX forecasts, the symbols shall be included on SIGWX forecasts irrespective of the height to which the ash column or radioactive material is reported or expected to reach; and	d) where a volcanic eruption/ re-suspension or a release of radioactive materials into the atmosphere warrants the inclusion of the volcano symbol or the radioactive materials in the atmosphere symbol in SIGWX forecasts, the symbols shall be included on SIGWX forecasts irrespective of the height to which the ash column or radioactive material is reported or expected to reach; and
APPENDIX 5 Template A5-4 Template for GAMET	Volcanic eruptions (M)	Volcanic ash (M)

4.2 Criteria related to phenomena included in SIGMET and AIRMET messages and special air-reports (uplink)		4.2.10(Recommendation) Volcanic ash should be considered: a) “re-suspended ash” can be mentioned to tell difference from a new eruption, when it is clearly confirmed
APPENDIX 6 Table A6-1 Template for SIGMET and AIRMET messages and special air-reports (uplink)	[VA ERUPTION] [MT][nnnnnnnnnn] [PSN Nnn[nn] or Snn[nn] Ennn[nn] or Wnnn[nn]] VA CLD	[[VA ERUPTION] or [VA RESUSPENSION]] [MT][nnnnnnnnnn] [PSN Nnn[nn] or Snn[nn] Ennn[nn] or Wnnn[nn]] VA CLD
APPENDIX 9 1.1 List of information for the aerodrome control tower	e) information received on pre-eruption volcanic activity and/or a volcanic eruption as agreed between the meteorological and ATS authorities concerned.	e) information received on pre-eruption volcanic activity, a volcanic eruption and/or a re-suspended ash as agreed between the meteorological and ATS authorities concerned.
1.2 List of information for the approach control unit		
1.3 List of information for the area control centre and flight information centre		