



WORKING PAPER

**INTERNATIONAL AIRWAYS VOLCANO WATCH OPERATIONS GROUP
(IAVWOPSG)**

FOURTH MEETING

Paris, France, 15 to 19 September 2008

Agenda Item 5: Operation of the IAVWOPSG

5.2: Improvement of the format and content of all volcanic ash related messages

REVIEW OF ANNEX 3 MODEL VAG

(Presented by Canada)

SUMMARY

This paper identifies problems with the Volcanic Ash Graphic (MODEL VAG in Annex 3), raises some issues with respect to the consultation process between ICAO - WMO and formulates recommendations to address the difficulties identified.

1. INTRODUCTION

1.1 The Volcanic Ash Graphic was introduced as MODEL VAG in Appendix 1 of Amendment 74 to Annex 3 — *Meteorological Service for International Air Navigation*. It is the graphical ("image") equivalent of the text Volcanic Ash Advisory (VAA).

1.2 MODEL VAG contains a number of errors and inconsistencies that are addressed in section 2 of this paper.

1.3 It was proposed and accepted at the second meeting of ICAO's IAVWOPSG in September 2005 (<http://www.icao.int/anb/iavwopsg/meetings/>) but its specific details (format, size, details, etc.) were however not discussed by the meeting.

1.4 MODEL VAG was not included (i.e. page left blank) in the various draft versions of Amendment 74 to Annex 3 that were circulated to ICAO Member States during the consultation / review process. The first time an example of the MODEL VAG was included (this is in fact true for all flight documentation - model charts and forms of Appendix 1 to Amendment 74, Annex 3) is in ICAO State letter entitled "Adoption of Amendment 74 to Annex 3" (AN 10/1.1-07/11) dated 30 March 2007.

1.5 In accordance with the document *Working Arrangements between the International Civil Aviation Organization and the World Meteorological Organization* (Doc 7475), the MODEL VAG had been referred by ICAO to WMO as specified in Annex 3, Appendix 8, section 4 (specifications related to flight documentation): "Models of charts and methods for their completion are developed by the World Meteorological Organization on the basis of relevant operational requirements stated by the International Civil Aviation Organization".

1.6 Under normal circumstances, the proposed MODEL VAG should have been discussed /reviewed at the last meeting of the WMO Commission for Aeronautical Meteorology (CAeM) and WMO Member States would have had the opportunity to comment on it prior to its inclusion in the final version of Amendment 74 to Annex 3. However, that did not happen.

1.7 As result, by the time the MODEL VAG appeared for the first time, it was already finalized in ICAO State letter "Adoption of Amendment 74 to Annex 3". In the end, the VAG was included in Amendment 74 without consultation or review by WMO Member States or ICAO Member States.

2. PROBLEMS WITH THE MODEL VAG

2.1 The MODEL VAG is shown in annex to this paper. What follows illustrates some of the problems that have been identified. A thorough review is needed by IAVWOPSG to identify all issues and propose changes in time for Amendment 75 to Annex 3.

2.2 The two upper panels valid for 11/0715Z and 11/1315Z show a number of overlapping ash clouds: SFC/FL100, SFC/FL600 (left panel) and SFC/FL00, SFC/FL290 and SFC/FL600 (right panel). This appears to be redundant, as the lower layers are covered by the SFC/FL600 one in both cases. In practice, the VAA would not be written this way.

2.3 The label "VA ADVISORY" in the VAA is incorrectly identified as "VOLCANIC ASH ADVISORY" on MODEL VAG.

2.4 The labels "OBS VA DTG", "FCST CLD + 6 HR:", "FCST CLD + 12 HR:" and "FCST CLD + 18 HR:" in the VAA are not explicitly identified on MODEL VAG. Should they be?

2.5 In Annex 3, I t would be useful to have the MODEL VAG and the example for the VAA use the same example for consistency and an easier comprehension for the user.

3. CONCLUSION

3.1 In light of the points raised, the group may wish to consider the following conclusions:

Conclusion 4/xx — Amendment of MODEL VAG

RSP	That, WMO be invited to include in Appendix 1 to Annex 3 the proposed changes to the model for the graphical volcanic ash advisories given in Appendix ¹ as part of Amendment 75.
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¹ At the appendix to this paper.

Conclusion 4/xx — Coordination between ICAO and WMO

That, the IAVWOPSG Secretary and the representative of WMO review coordination procedures leading to proposed changes to Annex 3 to ensure that consultation and review take place with WMO Member States and ICAO Member States.

4. ACTION BY THE IAVWOPSG

4.1 The IAVWOPSG is invited to:

- a) note the information on this paper; and
- b) decide on the draft conclusions proposed for the group's consideration.

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APPENDIX

ANNEX: MODEL VAG in Amendment 74 to Annex 3.

