



**MET PANEL (METP)  
MET OPERATIONS GROUP (MOG)  
INTERNATIONAL AIRWAYS VOLCANO WATCH (IAVW)**

**EIGHTH MEETING**

**Wellington, New Zealand, 12 to 14 November 2018**

**Agenda Item 4: MOG (IAVW) Work Plan and activities  
4.1: Progress Reports from each activity**

**New Status Code in VAA**

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**SUMMARY**

IATA supports the deletion of the colour code from the volcanic ash advisory (VAA) albeit users will still require current, known information on the eruption status of the volcano. Given the VAA will be provided by AMHS in the IWXXM format enables the opportunity to display additional information. Replacing the current colour code should be information which will concisely and consistently depict the status of the erupting volcano. This will not be limited to a single indicator e.g. a colour but have the capacity to describe the status in much broader terms with supporting information.

**1. DISCUSSION**

1.1 The existing colour code in VAA will soon be redundant

1.2 The objective of the colour code is to indicate the level of pre-eruption activity or the volcano is in an erupting state. Operators will still require and must receive this information to facilitate consideration by operators and pilots to avoid volcanoes with increasing activity levels. Currently, VONA as a measure is not used globally and when used, is not consistent applied. This said, given aircraft are most exposed to dangerous levels of ash when in close vicinity to an erupting volcano (i.e. prior to the VAA

being published). users must therefore have access to comprehensive, up to date pre-eruption activity advice. This is for both safety and pre-tactical planning efficiency. We do agree this should be via a globally consistent VONA and operators should receive VONA or at least have this information made available to them by the VAACs. Only then using the information rich VONA will operators be able to decide whether to avoid volcanoes which have high or increasing activity levels and be timely informing pilots in-flight.

1.3 Users require current, well-informed information on the status of an eruption. This is key information when conducting a risk assessment to avoid volcanic ash. Given the use of engine susceptibility thresholds and the likely progression towards quantitative forecasts, the requirement to always know the eruption state will increasingly become an imperative.

1.4 Achieving this objective will require development of additional information which concisely and consistently combines information for users on the activity levels, eruption status, plume heights etc of the volcano. This development should be a collaboration between the VAAC's and all users.

1.5 This new information would preferably be contained within a new VAA field which combines the Eruption Status and Eruption Details into a single field called, Eruption Information. This new field should consist of following indicators to denote the overall activity level:

1. **Erupting** – *observed eruption*, or
2. **Not erupting**, *no observed eruption*, or
3. **Intermittent discreet eruptions**, *not a continuous eruption*, or
4. **Unknown**

The activity level should be accompanied with:

- **Plume height (FL)**, if known

The activity level and plume height should be accompanied by the VAACs confidence in the assessment plus any qualifying information.

1. **HIGH**
2. **LOW**

This could be followed by a simple statement on the confidence in the source term parameters used in the VAA

1. **HIGH**
2. **LOW**

*Note: addition supporting information such as known source detail should be included*

1.5 This best judgement assessment should be conducted by the VAAC after assessing satellite sensing, PIREP and all available evidence and information from the affected volcanic observatory and other sources

1.6 Given the ability to include additional information other than the above, this information would ideally be sent by using IWXXM and then integrated into the SWIM environment.

1.7 An example of the VAA template change is as follows

Element	Detailed content	Template(s)	Examples
1	Identification of the type of message (M)	Type of message VA ADVISORY	VA ADVISORY
2	Time of origin (M)	Year, month, day, time in UTC DTG: nnnnnnnn/hnnnZ	DTG: 20080923/0130Z
3	Name of VAAC (M)	Name of VAAC VAAC: nnnnnnnnnnn	VAAC: TOKYO
4	Name of volcano (M)	Name and IAVCEI <sup>1</sup> number of volcano VOLCANO: nnnnnnnnnnnnnnnnnnnnn [nnnnn]  or  UNKNOWN  or UNNAMED	VOLCANO: KARYMSKY 1000-13    VOLCANO: UNNAMED
5	Location of volcano (M)	Location of volcano in degrees and minutes PSN: Nnnnn or Snnnn  Wnnnnn or Ennnnn  or  UNKNOWN	PSN: N5403 E15927    PSN: UNKNOWN
6	State or region (M)	State, or region if ash is not reported over a State AREA: nnnnnnnnnnnnnnn	AREA: RUSSIA
7	Summit elevation (M)	Summit elevation in m (or ft) SUMMIT ELEV: nnnnM (or nnnnnFT)	SUMMIT ELEV: 1536M
8	Advisory number (M)	Advisory number: year in full and message number (separate sequence for each volcano) ADVISORY NR: nnnn/nnnn	ADVISORY NR: 2008/4
9	Information source (M)	Information source using free text INFO SOURCE: <i>Free text up to 32 characters</i>	INFO SOURCE: MTSAT-1R KVERT KEMSD
10	<b>Eruption Information</b>	Overall activity level  (including date/time of eruption(s))  Status  1. Erupting  2. Not erupting  3. Intermittent, discrete eruptions  Plume height (if known) FL  Confidence  1. HIGH  2. LOW  Source term confidence  1. HIGH  2. LOW	Erupting  FL340  HG  LOW  Or  1/340/1/2

Element	Detailed content	Template(s)	Examples
104		ERUPTION DETAILS: <i>Free text up to 64 characters</i>  or  UNKNOWN	ERUPTION AT ERUPTION AT DETAILS: 20080923/0000Z FL300 REPORTE
112	Time of observation (or estimation) of ash (M)	Day and time (in UTC) of observation (or estimation) of volcanic ash	OBS (or EST) VA DTG: nn/nnnnZ  OBS VA DTG: 23/0100Z

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(Table A2-1. Template for advisory message for volcanic ash)

2. **RECOMMENDATION:**

2.1 Given the current and future derived benefit provided by this supporting information, IATA requests this improvement be advanced by the group and the VAA change implemented

3. **ACTION BY THE METP-WG/MOG**

3.1 The METP-WG/MOG is invited to:

- a) note the information contained in this Study Note.
- b) nominate an ad hoc group to develop this updated information and implement the change

— END —