

Fifth WMO VAAC Best Practices (VAAC BP/5) workshop

Preliminary outcomes –
VAAC consensus



WMO OMM

World Meteorological Organization
Organisation météorologique mondiale

7 to 9 June 2017

Japan Meteorological Agency, Tokyo, Japan

Please note...

- Preliminary outcomes (VAAC consensus) arising from the Fifth Meeting of the WMO VAAC Best Practices workshop, 7 to 9 June 2017, Tokyo, Japan
- Refer to meeting report ([available here](#) in due course) for final outcomes

VAAC Collaboration Tools

- Clear need for interactive web-based tool but no universal solution at present
- Preliminary functional needs analysis completed
- Next steps:
 - Finalise functional needs analysis [Dov in coordination with all VAACs]
 - Develop a web-based platform (basic functionality) in 2017 [VAACs with capability]
- Progress report to VAAC BP/6 (2018) [Dov]

IWXXM/XML developments

- All VAACs currently or soon-to-be IWXXM capable
- Clarification required on the differences between IWXXM v2.1 and v3.0 and when v3.0 will be available
 - Seek direction from WG-MIE (July 2017) [Patrick]
- New VAAC service requirements should be developed only in IWXXM
- Make available IWXXM-compliant VAA/VAG information via:
 - VAAC websites (to start)
 - Extended AMHS (eventually)
- Progress report to VAAC BP/6 (2018) [Dov]



Aviation colour codes

- VONA, VAA/VAG, ASHTAM/NOTAM
 - Potential source of confusion, inconsistency and/or duplication across VA products
- Recognise users' need for information, especially pre-eruptive state
- Propose that aviation colour code be removed from VAA template
- *...simultaneous with...*
- Elevation of VONA to the status of a Recommended Practice and (eventually) in Annex 3
- Report outcome to WG-MOG (IAVW) (June 2017) [Ian as MOG sub-team lead]



Key Performance Indicators (KPIs)

- Baseline (minimum capability) KPIs developed
- *Timeliness*
 - Initial VAA/VAG issued within 20 minutes of sufficient evidence of VA in the atmosphere on 95% of occasions
 - First forecast VAA/VAG issued within 75 minutes of sufficient evidence of VA in the atmosphere on 95% of occasions
- *Accuracy*
 - Peer review of VAA/VAG output across VAACs
- *Compliance*
 - Subsequent forecast VAA/VAG issued within at least 6 hours until 'no further advisories'
- Report outcome to WG-MOG (IAVW) (June 2017) [Anton]

Reporting of No Ash

- Potentially valuable source of evidence to validate/corroborate VAAC output, but limited reporting
- Local VAAC/ANSP/AO direct liaison can increase reporting (and is not too onerous for all concerned)
- Ensures link with the definitions for discernible ash and visible ash
- Report outcome to WG-MOG (IAVW) (June 2017)
[Emile]

Observation

- NO VA impacts on/in aircraft detected, or
- POSSIBLE VA observed TOWARDS nn (cardinal/inter-cardinal points) AT FLxxx



Discernible Ash

- ‘Checklist’ framework for confidence assessment of discernible ash
 - Conventional ‘tick-box’
 - Graphical ‘pyramid’
- Undergoing trial usage, strengths and weaknesses
- Valuable tool when there is a lack of (or ambiguity in) evidence/reports; Added credibility to VAAC decisions and output
- VAAC forecaster reference aid – most especially but not only ‘new’ forecasters
- Ensure linkage with the VAAC Collaboration Tool
- Report outcome to VASAG (2017) [Ian]
- Progress report to VAAC BP/6 (2018) [Adele/Kazuki]



Satellite inter-comparison

- MTSAT2 vs. Himawari-8
- Paradigm shift in the information available to the VAACs and their output
 - Can detect ‘more’ ash/finer plumes, seen for longer
- Some side effects
 - More resource intensive for VAAC forecasters, including consistency across VAACs
 - More resource intensive for recipients due to increase VAA/VAG issuance (‘small’ eruptions)
- Progress report to VAAC BP/6 (IAVW) (2018)
[Adele/Kazuki]

Re-suspended ash

- VAA/VAG must be issued for re-suspended ash where evidence supports its existence
- VAA template, include in:
 - Eruption Details section (“NO ERUPTION, RE-SUSPENDED ASH”) and
 - Remarks RMK section (if sufficient character space exists)
- Consider other parts of VAA template
 - e.g. Summit elevation (mandatory field)
- Report outcome to WG-MOG (IAVW) (June 2017) [Yohko]
- Progress report to VAAC BP/6 (2018) [Adele/Kazuki]

T+0 confidence

- Existing VAA template is a limiting factor
 - does not fully support user requirement
- Very limited user feedback of a continuing requirement/derived benefit of having the confidence information
- Trialing of a supplementary confidence graphical product by some VAACs
- Propose to discontinue inclusion on VAA while exploring other options
- Report outcome to WG-MOG (IAVW) (June 2017)
[Emile]

Model VAG and Model SVA

- Existing examples have shortcomings
- Proposal to develop:
 - Model VAG with 2x examples
 - Model SVA with 2x examples
- Need to be mindful of transition to ‘information’
- Report outcome to WG-MOG (IAVW) (June 2017)
[Greg]
- Subject to WG-MOG agreement, VAAC Wellington to assist WMO in development of new examples
[Paula]



T+24 VAG trial

- Most but not all VAACs produced during trial period
- *...but...*
- Additional burden on VAAC resources
 - unsustainable without appropriate cost recovery
- Very limited user feedback of a continuing requirement/derived benefit of having a T+24
- Propose to cease the trial in the absence of a clear (Annex 3) user requirement
 - Respect user calls for ‘information’ and ‘data’ rather than legacy products/chart format
- Report outcome to WG-MOG (IAVW) (June 2017)
[Greg]



Supplementary products – concentration charts

- UKMO and Meteo-France
- VOLCEX in Europe
 - Concentration charts
 - CML product (newer) – DISCONTINUED based on user feedback
- Revisit the concentration charts issue given advances in SCI and TECH since 2010 and recent Rolls-Royce announcement
 - ICCAIA link/perspective?
- Report outcome to WG-MOG (IAVW) (June 2017)
[Anton]



SO2

- Most but not all VAACs have SO2 capability
 - Research oriented/non-operational
- Establishing a service operationally requires a clearly defined user requirement (Annex 3)
- Report outcome to WG-MISD (SO2) (June 2017) [Greg]