

QVA Implementation Timeline

Indicative overview

Developed by the Joint QVA Task Force:

SESAR Deployment Manager

EUROCONTROL Network Manager

IATA

ICAO

Météo France

UK Met Office

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Introduction

This document aims at providing an indicative overview of the implementation timeline and key considerations surrounding the introduction of Quantitative Volcanic Ash (QVA) in Europe. It has jointly been developed by the 'Joint QVA Task Force', consisting of the SESAR Deployment Manager, EUROCONTROL Network Manager, IATA, ICAO, Météo France, and the UK Met Office.

The document outlines at a high level the regulatory framework, challenges, and collaborative efforts underway to enable the effective use of QVA data by all relevant stakeholders in a timely manner, acknowledging the existing complexities associated with deployment within the Commission Implementing Regulation (EU) 2021/116 (CP1) timeframe.

CP1 mandates that:

- European Volcanic Ash Advisory Centres (VAACs) provide QVA data via SWIM conformant services; and
- NM, European ATS ANSPs and MET ANSPs consume and use this data in operations.

Context

In April 2025, the ICAO Council adopted Amendment 82 to ICAO Annex 3, along with the first edition of the Procedures for Air Navigation Services – Meteorology (PANS-MET, Doc 10157). Most of these Amendment 82 provisions became applicable on 27 November 2025¹.

A new ICAO Annex 3 recommended practice was introduced foreseeing that until 25 November 2026, for significant volcanic ash 'clouds', Volcanic Ash Advisory Centres (VAACs) which are in a position to do so, should issue forecasts of quantitative volcanic ash concentration information for a volcanic ash 'cloud' (QVA) and as of 26 November 2026 all VAACs should issue forecasts of QVA to meteorological service providers and other users, as arranged by the meteorological authority.

In parallel, CP1 mandates the provision and consumption of QVA by 31/12/2025. Provision of the data is enabled by subscribing to the two Quantitative Volcanic Ash Concentration Information Subscription and Request Services provided by VAAC London (UK Met Office) and VAAC Toulouse (Météo France)². Consumption of QVA by users can be possible at a technical level through SWIM infrastructure already in place as a prerequisite for the consumption of other MET SWIM Services, as well as wider CP1 SWIM services.

However, the operational use of this data for all stakeholders is not supported by applicable guidance within EUR ICAO Doc 019 – Volcanic Ash Contingency Plan (VACP), in which the volcanic ash contingency procedure for airspace users is currently still based on the legacy Volcanic Ash (VA) Mass Concentration Charts, which are intended to be replaced by QVA.

This lack of guidance was escalated to the MET SWIM Services Sub-Group (MET3SG) and the SDM, along with NM, VAACs (Météo France and UK Met Office), IATA and ICAO, who have jointly

¹ with some specific QVA provisions deferred to 26 November 2026

² The two European VAACs have different geographical areas of responsibility and act as backup for each other, so it is necessary to subscribe to both services.

established a Task Force to address this issue, as well as other QVA-related matters, including the development of this document.

In response, the EUR/NAT ICAO Office Paris took the decision to establish a EUR/NAT Volcanic Ash Contingency Plan Amendment Project Team (VAPT) to draft an updated VACP, containing operational user guidance relating to the use of the new QVA.

In parallel, a EUR/NAT ICAO METG ad-hoc group consisting of France, Iceland, UK and Germany will develop guidance material on QVA for its inclusion in flight briefing documentation and liaise with the EUR/NAT VAPT to provide further input to the VACP.

These necessary steps are required to facilitate the implementation of QVA.

Until the VACP is updated (earliest beginning of 2027) consumers will not be fully supported by applicable user guidance, which would delay the operational use of QVA, thus resulting in an operational uptake occurring beyond the CP1 deadline (although QVA information is already available from the VAACs).

EVITA Dependency

EUROCONTROL NM is the owner of the European crisis visualisation interactive tool for ATFCM (EVITA).

This is a collaborative online tool which allows operational stakeholders to visualise the impact of a crisis on air traffic and on the available air traffic network capacity in Europe. EVITA is tailor-made for volcanic ash events, and in such an event, will:

- Receive and display QVA data from VAAC London and/or VAAC Toulouse on the EVITA map;
- Provide extensive tools to tailor the ash cloud display to the user needs in terms of time, flight level and ash concentration;
- Display danger areas, as declared by States via NOTAM, on the EVITA map;
- Display any Airspace Data Aerodromes and Flights and calculate if they are impacted by either ash concentration data or danger areas, or areas locally defined by aircraft operators;
- Facilitate input of AIREPs transmitted to the ATCO by pilots in flight and display it together with the other information on the EVITA map;
- Assist with re-routings, avoiding areas that are affected by ash.

As part of EUROCONTROL's Network Manager efforts to ensure compliance with CP1 regulation, the new QVA information services from VAAC London and VAAC Toulouse have been included in an updated version of EVITA. Currently, this new version of EVITA is restricted to Read Only because the network has not yet been provided with the necessary guidance on how to use QVA, neither in terms of operational procedures, nor with the regulatory aspects.

In order to minimise operational risk and safeguard continuity, EUROCONTROL Network Manager will continue providing the legacy EVITA version utilizing the old VA concentration charts, until all necessary QVA guidance is established, and all other dependencies that enable stakeholders to use the QVA data operationally have been fulfilled. The maintenance of the legacy tool and

visualisation will, however, be limited as it creates additional and significant, unforeseen cost for the EUROCONTROL Network Manager.

Key progress milestones so far

ICAO METG35 – 16 – 19th September 2025

EUROCONTROL and SDM presented *WP/16 QVA Implementation for Users + ToR for ICAO VACP Amendment Project Team (VAPT)*, a working paper coordinated with ICAO, SDM, NM, EASA, IATA, VAAC London, and VAAC Toulouse.

The paper highlighted the existing concerns regarding implementation and operational use of QVA data and suggested further urgent development of the VACP. It also suggested the EASPG may wish to consider establishing a new EUR/NAT VACP Amendment Task Force, to include VAACs, State MET authorities, ANSPs, aircraft operators (including IATA), EUROCONTROL, EASA, and other relevant stakeholders to coordinate operational, technical, and regulatory updates of the VACP.

An ad-hoc group consisting of France, Iceland, UK and led by Germany will also:

- Develop guidance material on QVA for inclusion in flight briefing documentation/liase with EUR/NAT VACP Amendment Project Team (VAPT)
- Draft an update to Doc 014 EUR SIGMET and AIRMET Guide
- Report their recommendations to METG/36 for agreement

SDM QVA Workshop – 30th October 2025

SDM organized a QVA workshop to share all available information and raise awareness of the issues associated with the implementation and operational use of QVA and to promote coordination between stakeholders in progressing swiftly the necessary steps toward operational acceptance.

Presentations given by a range of stakeholders provided a multi-perspective view of the steps required to support the transition from the VA Mass Concentration Charts to QVA from a regulatory, technical, and operational perspective.

It was also reiterated that QVA will only be able to be used in operations once user guidance is available and the new service has gone through the full regulatory process.

Establishment of the VAPT - Ongoing

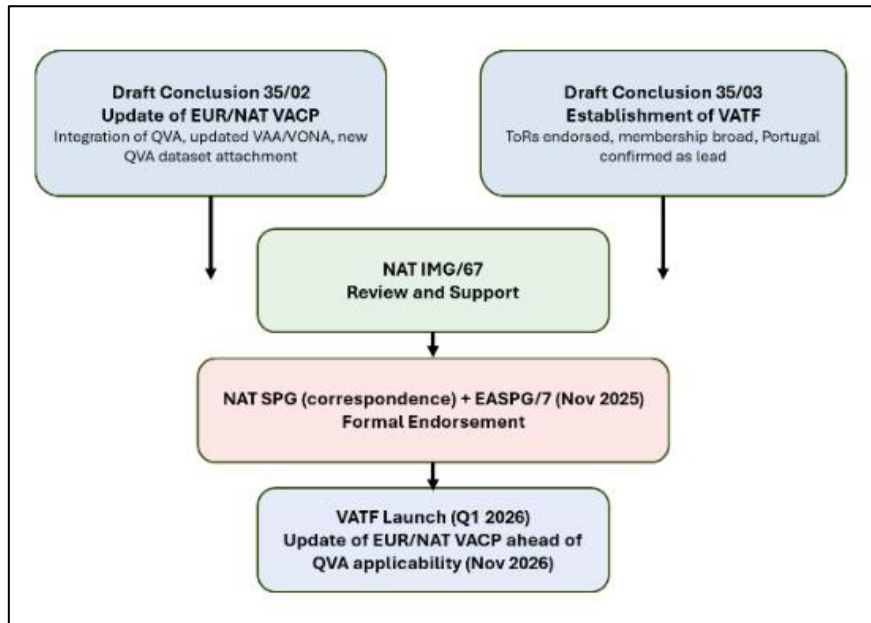
Led by ICAO Paris, the establishment of the VAPT is underway, having been endorsed at NAT IMG67 and EASPG07. Following the NAT IMG meeting, the matter was also discussed at the NAT SOG meeting in mid-December. In line with the agreed procedures, NAT SPG endorsement was also required.

Because the next NAT SPG meeting is scheduled for June 2026, it was decided to seek NAT SPG endorsement by correspondence to avoid delays. After the NAT SPG also endorsed the establishment of the VAPT, on 26 January 2026 ICAO Paris invited States and international organizations to submit the names and contact details of their nominated subject matter

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experts/representatives by 13 February 2026. This was executed in line with the Terms of Reference of the VAPT.

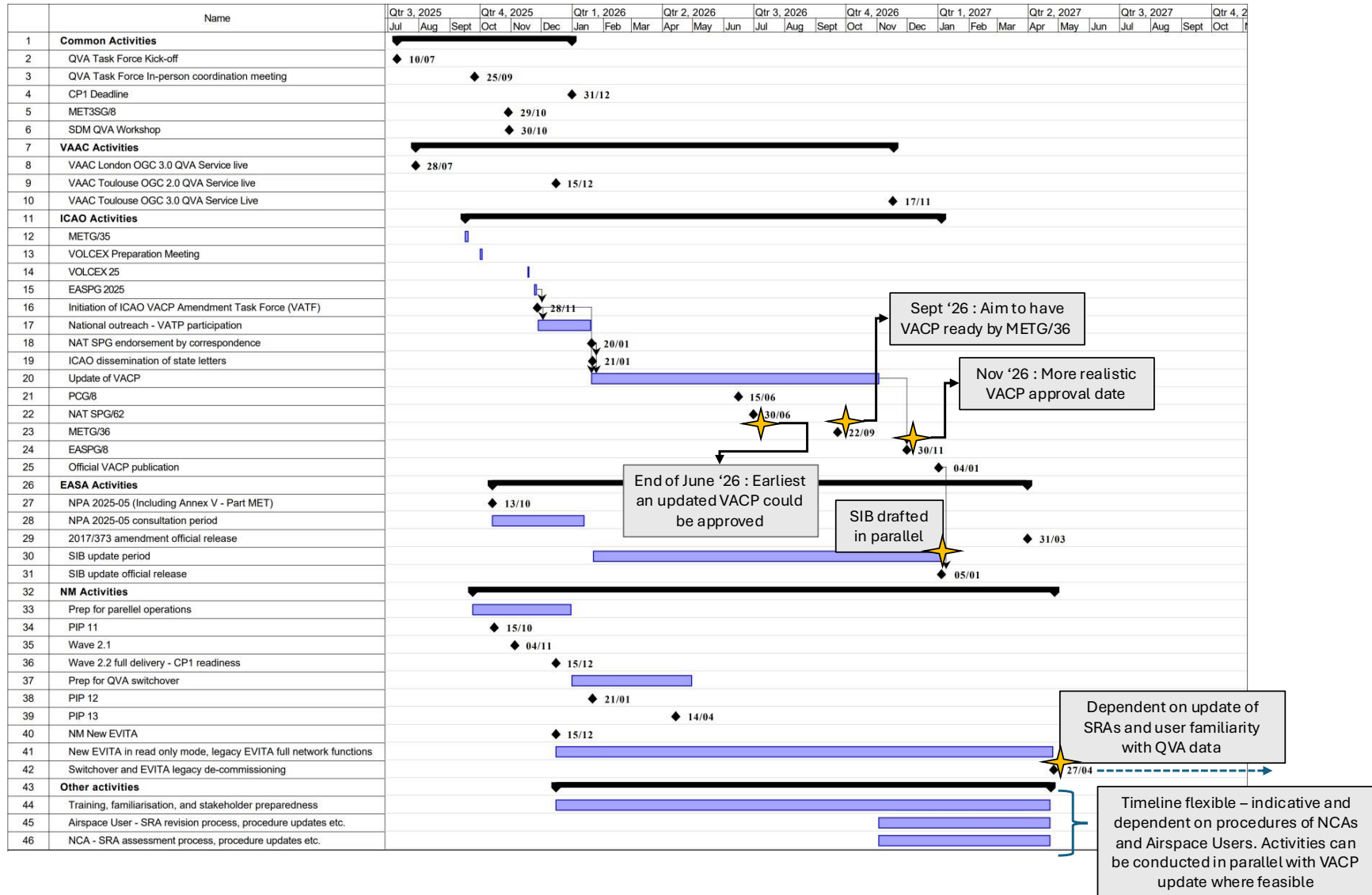
An overview of the key steps taken in the initiation of the VAPT is depicted below:



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Timeline:

With the above considerations in mind, the SDM has developed an indicative Gantt chart capturing the key milestones and lead times, with the intention of developing a clearer picture of the tasks required and the corresponding task owners. This overview highlights the dependencies, and ultimately identifies the critical path to fulfilling the implementation of QVA in an efficient and timely manner within the existing regulatory limitations.



Key activities:

To support the transition from VA concentration charts to QVA, the most critical steps outlined in the Gantt chart are presented below. These highlighted steps, if delayed, could impact the timeframe for the deployment of QVA, thus prolonging the transition phase and resulting in the continuation of the use of the legacy VA concentration charts.

National outreach – VAPT participation

Risk level	Dependencies
Low	- User awareness of implementation challenges

- Due to the wide range of stakeholders affected by the lack of QVA user guidance, it is imperative that there is appropriate representation from all user-groups, including Airspace Users, engine manufacturers, CFSPs, ANSPs, NCAs, MET Providers, EUROCONTROL and EASA.
- There must be common consensus, ensuring that stakeholders are able to adhere to the procedures that will ultimately be based on the guidance in the updated VACP, especially concerning Airspace Users and NCAs during the Safety Risk Assessment (SRA) process.
- Upon endorsement by correspondence from the NAT SPG, ICAO Paris will issue state letters inviting participation to the VAPT. Through engagement activities such as VOLCEX and the SDM QVA Workshop, it is expected that stakeholders will be aware of the upcoming activity and there is strong attendance within the VAPT, ensuring the development of user guidance that stakeholders are fully aligned with.

QVA OGC Standard Consistency

Risk level	Dependencies
Low	- VAAC provision of QVA service

- Although VAAC Toulouse has provided their QVA service since 15/12/2025 and makes this data available via an API (Metgate_MF) as required by CP1, the interface standard is aligned with OGC 2.0 (Web Feature Service) rather than OGC 3.0 (Environmental Data Retrieval).
- This is not in consistency with the standard as agreed between the VAACs globally who have to provide QVA-data as required by ICAO by 26 November 2026.
- During 2026, Météo France will continue to maintain the METGATE_MF OGC 2.0 service, while simultaneously developing the OGC 3.0 service.
- A Beta test version METGATE_OGC 3.0 is planned to be available by September 2026 to be operational by 26 November 2026.
- Once the OGC 3.0 service is implemented, Météo France will continue to provide the OGC 2.0 service in parallel, meaning the impact on users is minimised as there is no 'forced' transition period from the METGATE_OGC 2.0 API to the METGATE_OGC 3.0 API.
- Although the impact of this on the user is minimal, it does mean that the syntax for requesting data from the VAAC London API will be different to that of VAAC Toulouse, and consumers should be aware of this when subscribing to both services.
- The contents and format of the data retrieved will remain the same from a consumer perspective.

ANSP implementation

Risk level	Dependencies
Medium	- Procurement of SWIM capable systems/infrastructure

- While the complexities surrounding the operational use of QVA data are well known, mandated ANSPs, planning to consume the QVA services directly (rather than using EVITA), should nonetheless continue to implement these technical capabilities without delay, if they have not already done so within the scope of their CP1 endeavours.
- In addition to the fact that the implementation of the technical capability is mandated by CP1, ensuring mandated users are technically ready as early as possible minimises any chances of further delay upon release of the updated VACP.
- Having this ‘buffer’ also allows initial familiarisation with the new QVA data. Despite there being a lack of guidance, there is no restriction on the ability to consume the data and use for familiarisation/training purposes.

VACP Update

Risk level	Dependencies
High	- Sufficient VAPT participation

- It is anticipated that the VACP update phase will be completed over the course of 2026, with the aim of a mature document being ready for submission by METG/36 (best case scenario), but at least for the EASPG (30 Nov.-3 December 2026) and the NAT-SPG to ensure official approval.
- Timely completion of this activity is essential, as numerous subsequent activities depend on the approval and release of the document.
- Due to the corresponding review and approval cycles – namely the EASPG and NAT-SPG, the earliest possible date for the updated VACP to be published would be early 2027
- Should there be a delay in updating the VACP, there is a significant risk that the operational use of QVA will be postponed further, impacting stakeholders across Europe.

EASA SIB update

Risk level	Dependencies
High	- Completion of VACP updates - Participation/attendance of EASA in VAPT

- Upon completion of the VACP update by the VAPT and its approval by the EASPG and NAT-SPG, EASA must update the current SIB ([SIB_2023-13](#)) ‘Flights in Airspace with Contamination of Volcanic Ash’ to reflect the new guidance in the document.
- The SIB will provide the basis for Airspace Users to develop or update their process for Safety Risk Assessments (SRAs) when airspace is contaminated with volcanic ash.
- Without the publication of the updated SIB by EASA, NCAs will be unable to accept Safety Risk Assessments (SRAs) submitted to them by Airspace Users based on QVA information, resulting in the further prolongation of the use of the legacy VA Mass Concentration Graphics.

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- There is also no clear view on the criteria and reference documentation (in addition to the VACP) the NCAs will use to accept the SRAs submitted to them by the Airspace Users
- To minimise the lead-time between the completion and approval of the updated VACP, and the publication of the SIB, EASA will attend the VAPT meetings, and will develop the SIB as a parallel activity aiming to publish it soon after the VACP update is approved and released.

Safety Risk Assessment (SRA)

Risk level	Dependencies
High	<ul style="list-style-type: none">- Completion of VACP updates- EASA SIB update

- The SRA methodology requires Airspace Users to perform SRAs whenever changing their operational procedures and involve/inform the NCA accordingly. As the responsibility for Volcanic Ash (VA) avoidance or the decision to fly or not to fly into an area of known or forecast VA contamination lies with the Airspace Users, such an SRA must be initiated and then accepted by the NCA.
- With legacy VA concentration charts to be replaced by new deterministic and probabilistic information, it must be ensured that the existing SRA procedure³ would not be jeopardized by creating a gap in the guidance between old and new information for decision making during the transition.
- As a result, Airspace Users, who currently use the legacy VA concentration charts, will have to update their procedures to incorporate the new QVA data.
- Until the new QVA service has gone through the full regulatory process with ultimately all states continuing to keep airspace open and CAAs authorizing their Airspace Users to use the new information (and how to use it), the legacy ash concentration charts must therefore remain in place.
- Both NCAs and Airspace Users should be made aware of the changes introduced by QVA data the impact on the SRA methodology. At present, Airspace Users and NCAs lack a coherent view on the next steps, raising the risk of a further delay post-VACP update and SIB publication. A scenario could likely arise whereby the operational guidance is in place but is yet to be incorporated at the state level necessary to transition from VA concentration charts to QVA in a timely manner.
- Currently there is a mutual agreement between the NCAs that they accept the SRAs of other countries' airspace users. NCAs should coordinate to ensure that this approach still applies.
- To accelerate the process, Airspace Users and NCAs could begin preparing SRAs and assessment methodologies before the official publication of the VACP. It is anticipated that the contents of the document will be stable enough by November 2026, and work can continue iteratively even before this date as the document is being developed. This minimises the lead-time between the publication of the updated VACP and the acceptance of the new QVA-derived SRAs, leading to a faster overall rollout of QVA.

³ Airspace kept open based on the use of different concentrations of ash - operational decision making by airspace users

Coordinated switchover/operational transition from VA Mass Concentration Charts to QVA

Risk level	Dependencies
High	<ul style="list-style-type: none"> - Continued provision of legacy VA Concentration Charts by VAAC London and VAAC Toulouse - Agreement on requirements to be fulfilled before a full switchover/operational transition can be performed

- A date (and agreed set of criteria) must be defined where all stakeholders (AUs, MET, ATM, NCAs) can collectively decide when Europe will have transitioned from VA Mass Concentration Charts to QVA, and the legacy services can be terminated.
- In the event this date is not agreed, and NM, VAAC London and VAAC Toulouse were to discontinue the provision of either legacy EVITA or the legacy VA concentration charts before the widespread adoption of QVA by users has been achieved, the stakeholder impact could be significant in the event of a volcanic ash incident.
- In such a scenario, if the switchover from VA Concentration Charts to QVA is initiated too early i.e. before stakeholders are ready and the new QVA service has gone through the full regulatory process and before operational user guidance is available, there is the significant risk of airspace again being made unavailable (like in 2010). In such a scenario, only Volcanic Ash Advisories/Volcanic Ash Graphics (VAA/VAG) would be available for the SRA methodology approach.
- For Airspace Users that may not be ready before an agreed switchover date, they will need to revert to avoiding visible/discernible ash. The risk here is then that airspace is made unavailable when visible/discernible ash is detected, when only VAA/VAG would be available for the SRA methodology approach.

Training and familiarisation time

Risk level	Dependencies
High	<ul style="list-style-type: none"> - Completion of VACP updates - EASA SIB update

- Before stakeholders can begin using QVA operationally, there is a necessary training and familiarisation phase with the QVA data, and for many operational stakeholders also with the NM EVITA tool.
- Users should be encouraged to access the new QVA information either via the new EVITA provided by NM, or directly through the SWIM services provided by VAAC London and VAAC Toulouse to begin familiarising themselves.
- Where possible, this activity should be conducted in parallel with SRA-related activities to expedite the familiarity of users with the new information and enable a smoother transition upon publication of the updated VACP.
- The training and familiarisation phase is highly important and contributes directly to the SRA processes, ensuring Airspace Users and NCAs can interpret the necessary QVA data to submit and approve SRAs.
- This phase is also dependent on the timely update of the VACP; a delay to which will have a knock-on effect on this activity causing further lead-times in the operational use of QVA.

Although some elements of familiarisation can begin before the updated VACP is published, the core guidance must be mature enough to be able to begin addressing some of these steps in parallel.

Conclusions

The indicative timeline in this document presents the **best-case scenario of Q2 2027** for the rollout and operational use of QVA based on the **realistic target of early 2027 for the publication of the updated VACP**.

Delays to this activity, or to any VACP-dependent activities highlighted in this document not only introduce ambiguity and risk, but are also set to have wider impacts on the readiness of Airspace Users and NCAs. The result is a possible shift in the overall timeframe, as these delays would propagate to other activities, further delaying the transition.

Despite the QVA service(s) being made available within the CP1 timeframe by VAAC London and VAAC Toulouse, the lack of regulatory implementation and user guidance ultimately means that the provision of the legacy VA Concentration Charts cannot yet be suspended. Only when the specific pre-requisites highlighted in this document have been achieved, can the full operational transition to QVA take place effectively.

As a result, the 'Joint QVA Task Force' recommends that in the meantime, stakeholders providing volcanic ash visualisation/assessment tools continue to offer the capability to view the VA concentration charts at a minimum.

Finally, the timeline for national regulators to begin evaluating the SRA-reports on the updated operational procedures from Airspace Users and issue corresponding authorisations remains uncertain. Should existing volcanic ash operations qualifications (SRAs) not be re-confirmed or renewed to reflect the new data, prior to the implementation of the new QVA service, a significant volcanic ash event could result in diminished operational efficiency and significant financial burden for Airspace Users. The worst case being that airspace is made unavailable in case of no information on different concentrations of ash and only VAA/VAG is available for the SRA methodology approach. If the NCAs do not re-confirm that the mutual agreement to accept the SRAs of the other countries' airspace users still applies, this risk will be exacerbated further.

If you would like to reach out to the Joint QVA Task Force or have any further questions about the implementation of QVA, please contact:

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