



Welcome to METGATE_MF

YOUR ONE-STOP API PORTAL FOR AERONAUTICAL WEATHER DATA.

A SWIM gateway for MET data distribution



Demonstrator

Visualize the data



OWS Login

Login to Webservices 2.0

[WFS 2.0 - WCS 2.0.1](#)

[API Documentation →](#)



OGC API Login

Login to OGC API Services

[OGC API Features - EDR](#)



OGC Webservice Standards

WFS and WCS Webservices



SWIM Yellow Profile

SESAR SWIM Compliance



CP1

EU Common Project 1 Compliance



IWXXM

3.0.2023-2.2023-1, 2025-2 (soon)

Products available

Access is reserved for aeronautical users only.

OPMET data (TAC & IWXXM):

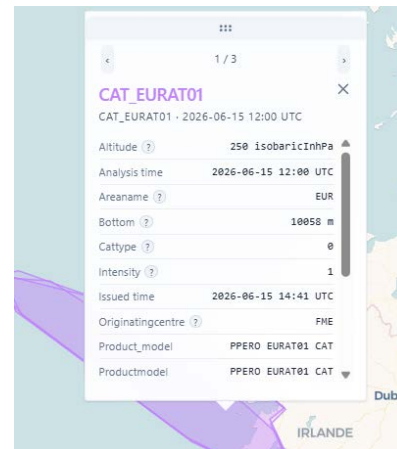
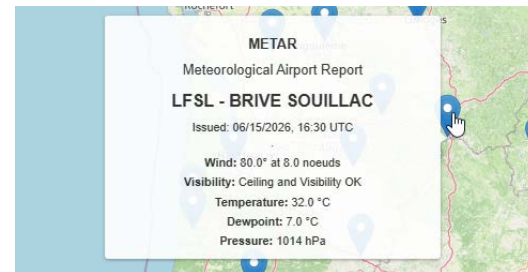
- METAR/SPECI ; TAF ; SIGMET/VA & AIRMET ;
- LocalReport ;
- MAA ; VAA ; SWX ;
- QVA IWXXM.

Vector-based products :

- Clear-Air Turbulence ; Icing ; Thunderstorms (Top & Bottom)

Gridded products :

- Jet ; Wind ; Tropopause ;
- QVA Deterministic ; QVA Probabilistic.



A Brief History

Metgate_MF is Météo-France's implementation of the SWIM met data gateway — the single point through which regulatory meteorological products are made available to the aviation community. In fine, it :

- serves OPMET, Gridded and other products using HTTP GET/REPLY and AMQP,
- also serves Toulouse VAAC volcanic ash data,
- receives/serves Local Reports from French aerodromes, minute by minute,
- allows filtering on meteorological parameters, ex. ICAO, Severity, RVR, etc.

Metgate_MF went into production in December 2025, with v2.3.

V3.0 integrating EDR will be in production in September 2026.

It is being integrated in DSNA systems as the main MET provider.

This ppt takes a look at Metgate : **i) Products, ii) Ways of consuming data, and iii) Filtering out the right data.**

Subscribing & Consuming

2 modes (HTTP or AMQP), multiple methods :

Follow the onboarding (Metgate Wiki) :

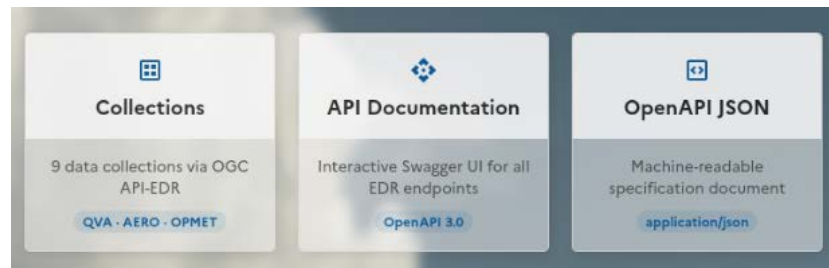
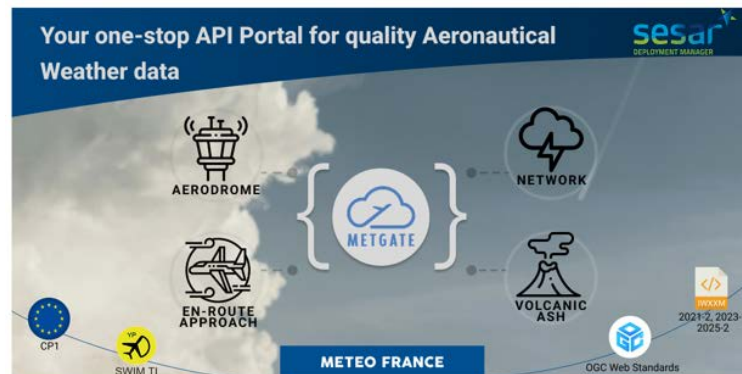
1. Sign Up & Subscribe to Products,
2. Obtain Notifications on your Metgate Account,
3. Request the data and use it on your own systems.

Explore the Webservices or EDR Endpoints :

1. Obtain a Token and consult the Catalog directly, using `GetCapabilities`,
2. Hone down on the product metadata, using `DescribeFeatures`, etc.,
3. Download the data, using `GetFeatures`, `GetCoverage`
4. EDR : Explore EDR Collections.

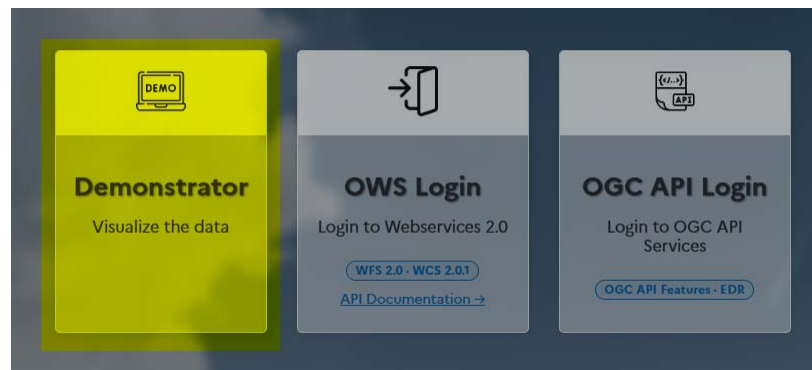
Consume directly from AMQP :

1. Connect to the AMQP cluster and obtain live notifications,
2. Metgate V3.1 (coming November) : Filter specific parameters using AMQP and SQL Expressions.



Filtering using the Demonstrator

The Demonstrator allows a preview of different API :
Expression Filtering on all ICAO aerodromes LF*



The screenshot shows the Metgate MF interface. At the top, there are tabs for 'AERODROME', 'METAR', 'ENR & APP', 'NETWORK', and 'VA'. The 'METAR' tab is selected. On the left, there is an 'OGC FILTER' section with 'Default Filters' and 'Clear Selected Parameters' buttons. Below this, there are input fields for 'Dataset Product' (set to 'SA last (sa_20260615000000)') and 'Filter parameters' (set to 'Select parameters (1 params)'). A 'GET Request' section shows a complex XML query. Below that, there is a 'Filter Expr.' section with another XML query. A 'Submit' button is at the bottom of the filter section. The main area is a map of France with several blue location pins. A pop-up window for 'METAR LFOH - LE HAVRE OCTEVILLE' is displayed over one of the pins. The pop-up shows the following information: 'METAR Meteorological Airport Report', 'LFOH - LE HAVRE OCTEVILLE', 'Analysis: 06/15/2026, 17:00 UTC', 'Wind: 18007KT 180° at 7 noeuds', 'Visibility: 9999m - 32807ft 10km or more', 'Weather: RA, VCTS', 'Clouds: FEW033/// SCT056/// BKN070///', 'Pressure: 1012'. There are buttons for 'Hide Opmet message' and 'Copy to clipboard'. On the right side of the map, there is a 'Layers' panel with a 'Hide all' button and a list of layers including 'Day 15, 17:00 UTC'.

Filtering using the Demonstrator

Expression Filtering + polygon selection of TAF :

AERODROME >

2 TAF

ENR & APP >

NETWORK >

VA >

OGC FILTER

Default Filters Clear Selected Parameters

Dataset Product TAF last (20260615000000)

Filter parameters Select parameters (2 params)

Filter conditional AND OR

Within Polygon

Hide Markers Remove last point

Coordinates:

48.4146186174932,-6.020507812500001
53.592504809039376,-2.3071289062500004
53.35710874569601,2.8784179687500004
50.90303283111257,6.723632812500001
48.734445537176822,1.2963867187500002

locationIndicatorICAO Like EG*

GET Request

https://metgate-int.meteo.fr/broker_service/WFS?
service=WFS&version=2.0.0&request=GetFeature&typeName=TAF
&filter=<fes:Filter
xmlns:fes="https://www.opengis.net/fes/2.0"><fes:AND>
<fes:PropertyIsLike matchCase="false" wildCard="*" singleChar="." escapeChar="!">
<fes:PropertyName>locationIndicatorICAO</fes:PropertyName>
</fes:PropertyIsLike>
</fes:AND>
</fes:Filter>

Filter Expr.

<fes:Filter xmlns:fes="https://www.opengis.net/fes/2.0">
<fes:AND><fes:PropertyIsLike matchCase="false"
wildCard="*" singleChar="." escapeChar="!">
<fes:PropertyName>locationIndicatorICAO</fes:PropertyName>
><fes:Literal>EG*</fes:Literal></fes:PropertyIsLike>
</fes:AND>
</fes:Filter>

Layers

TAF

Terminal Area Forecast

EGKK - LONDON GATWICK

Issued: 06/15/2026, 17:11 UTC

Valid: 2026-06-15T18:00:00Z to 2026-06-17T00:00:00Z

Forecasts

BASE

Wind: 140° at 10.0 m/s

BECMG (18:00-21:00 UTC)

Wind: 250° at 7.0 m/s

PROB40 TEMPO (22:00-07:00 UTC)

Clouds: Broken 900[ft.]

PROB30 TEMPO (18:00-00:00 UTC)

TAF

Terminal Area Forecast

EGKK - LONDON GATWICK

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PROB30 TEMPO (18:00-00:00 UTC)

Hide Opmet message

Copy to clipboard

<iwxxm:TAF xmlns:iwxxm="http://icao.int/iwxxm/2025-2" xm
<iwxxm:issueTime
<gml:TimeInstant gml:id="uuid.b7eabbea-a4d9-41a5-97z
<gml:timePosition>2026-06-15T17:11:00Z</gml:timePc
</gml:TimeInstant>
</iwxxm:issueTime>
<iwxxm:aerodrome>
<aixm:AirportHeliport gml:id="uuid.ae9c0e9e-2db3-437
<aixm:timeSlice>
<aixm:AirportHeliportTimeSlice gml:id="uuid.7927
<gml:validTime/>
<aixm:interpretation>SNAPSHOT</aixm:interpreta
<aixm:designator>EGKK</aixm:designator>
<aixm:name>LONDON_GATWICK</aixm:name>
<aixm:locationIndicatorICAO>EGKK</aixm:locatic
<aixm:ARP>
<aixm:ElevatedPoint gml:id="uuid.6ae629eb-be
<gml:pos>51.1481 -0.1903</gml:pos>
</aixm:ElevatedPoint>
</aixm:ARP>
</aixm:AirportHeliportTimeSlice>
</aixm:timeSlice>
</aixm:AirportHeliport>
</iwxxm:aerodrome>
<iwxxm:validPeriod>
<gml:TimePeriod gml:id="uuid.460f2184-22fc-45db-bea7
<gml:beginPosition>2026-06-15T18:00:00Z</gml:begin

Filtering using the Demonstrator

Radius selection of Turbulence :

AERODROME >

ENR & APP >

CAT

NETWORK >

VA >

OGC FILTER

Default Filters

Clear Selected Parameters

Dataset Product

CAT_EURAT01 last (20260615120000) ▼

Filter parameters

Select parameters (1 params) ▼

Within ▼

Point ▼

Hide Markers

Remove last point

msGeometry

Coordinates:

52.64306343665892, 7.558593750000001

Radius (m):

774663

GET Request

```
https://metgate-int.meteo.fr/broker_service/WFS?
service=WFS&version=2.0.0&request=GetFeature&typeName=CAT
_EURAT01_last&filter=<fes:Filter
xmlns:fes="https://www.opengis.net/fes/2.0"><fes:Within>
<fes:PropertyName>msGeometry</fes:PropertyName>
<gml:Polygon><gml:outerBoundaryIs><gml:LinearRing>
<gml:coordinates>52.64306343665892,19.027166380105353
54.44415522522145,18.636384244090706
```

Filter Expr.

```
<fes:Filter xmlns:fes="https://www.opengis.net/fes/2.0">
<fes:Within>
<fes:PropertyName>msGeometry</fes:PropertyName>
<gml:Polygon><gml:outerBoundaryIs><gml:LinearRing>
<gml:coordinates>52.64306343665892,19.027166380105353
54.44415522522145,18.636384244090706
```

Layers

CAT

Clear Air Turbulence

Analysis: 06/15/2026, 12:00 UTC

Valid: 2026-06-15T19:30:00.000Z to 2026-06-15T22:29:59.000Z

GML ID: cat.202606151200000009_97

CAT

Clear Air Turbulence

Analysis: 06/15/2026, 12:00 UTC

Valid: 2026-06-15T19:30:00.000Z to 2026-06-15T22:29:59.000Z

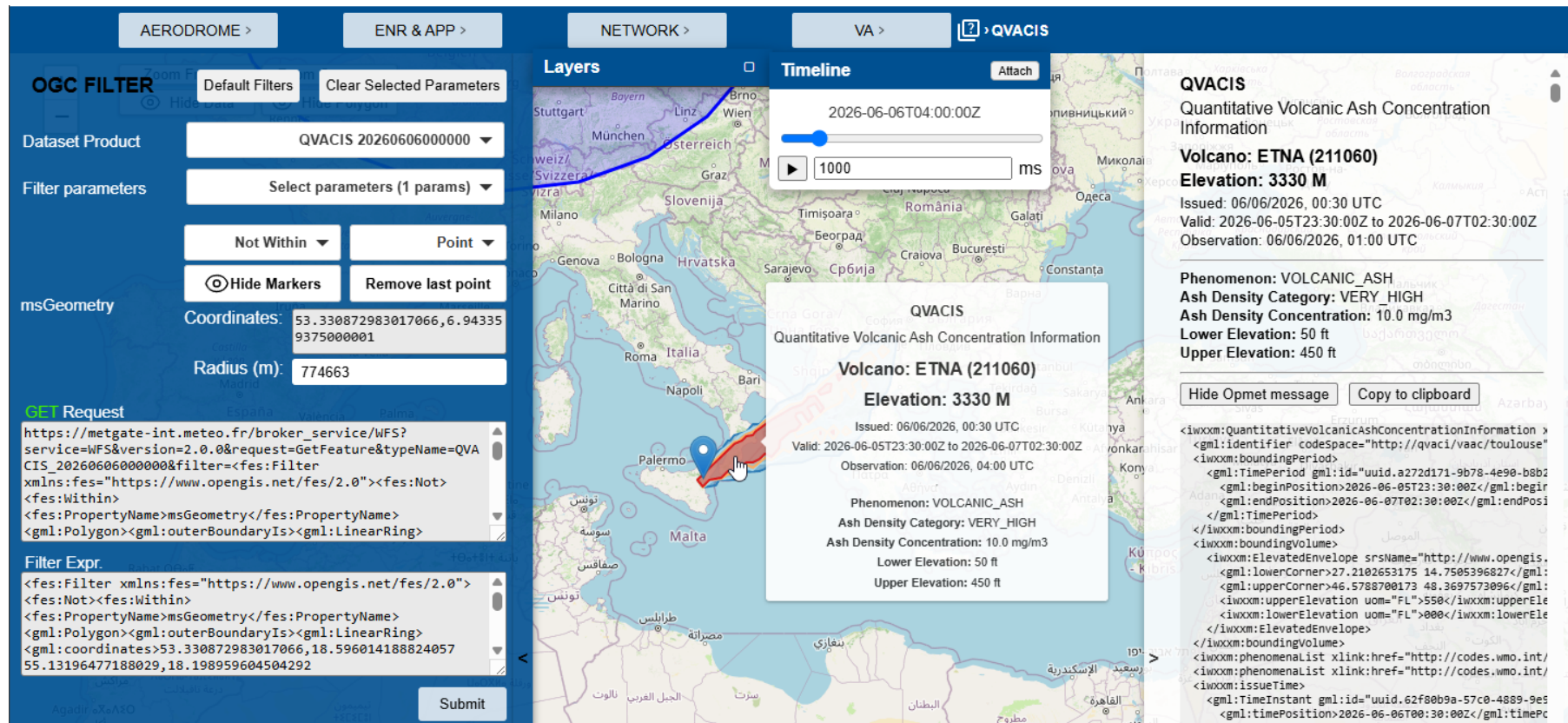
GML ID: cat.202606151200000009_97

Altitude: Bottom: 10668 m, Top: 11430 m

Intensity: 1

Filtering using the Demonstrator

Timeline viewing of Volcanic Ash event (simulated) :



Conclusion

Metgate APIs opens up (for free, as in coffee/beer) to aeronautical users :

- Ready-to-use Webservices – legacy but fully implemented, and
- Modern EDR Collections – limited products, but being built up.

A SWIM platform conforming to stringent requirements :

- Yellow Profile security requirements,
- Fresh data at a global scale, at live frequencies,
100% home-cooked :
- Designed, developed and hosted at Météo France,
- Supervised by MF personnel, with SLA agreements.

Thank You !

Merci !



Prise de contact (DSM) : [contact.metgate_mf @meteo.fr](mailto:contact.metgate_mf@meteo.fr)

Prospection : <https://eur-registry.swim.aero/services>

Wiki des Usagers SWIM à Météo France (avec MUT V2.3) : <https://confluence-meteofrance.atlassian.net/wiki/spaces/METGATE/overview>