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Eidgenössisches Departement des Innern EDI
Bundesamt für Meteorologie und Klimatologie MeteoSchweiz



World Meteorological Organization
Organisation météorologique mondiale

RA VI Training on the registration of hydrological stations in OSCAR/Surface

26th of November 2025, online

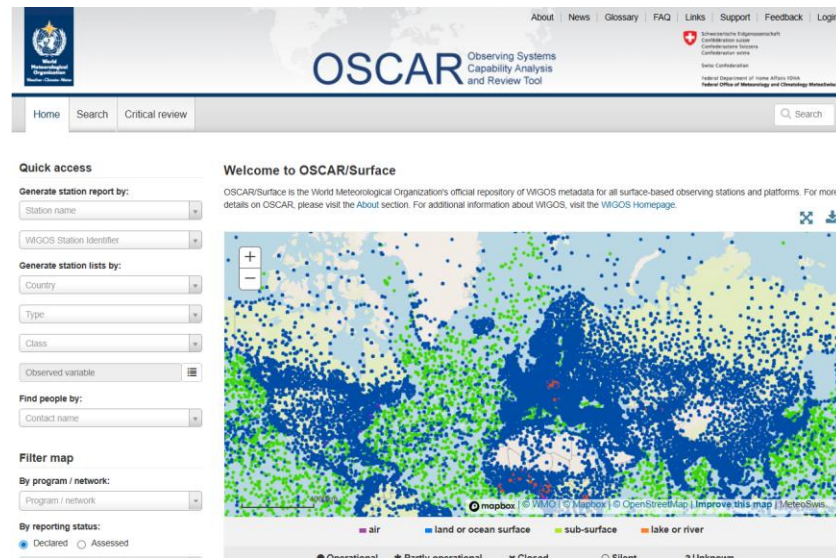


Agenda

1. Introduction to OSCAR/Surface workflow for station registration (Lucia) – 10 minutes
2. Demonstration
 - WSI allocation (Washington) - 5 minutes
 - Manual registration (Lucia) - 20 minutes
 - Bulk and automatic registration (Lucia) - 15 minutes
3. Questions and AoB (Lucia) – 10 minutes

OSCAR/Surface: overview

- WMO Catalogue of surface-based observing stations worldwide
- Covers all WIGOS domains
- Metadata management tool
- Role-based access and privileges
- Allow to describe current and past status of stations
- WMDS for metadata description



How can the hydrological community contribute to OSCAR/Surface?



Station registration in OSCAR/Surface

Engagement event:

<https://wmo.int/events/workshop/ra-vi-webinar-registering-hydrological-stations-oscarsurface>

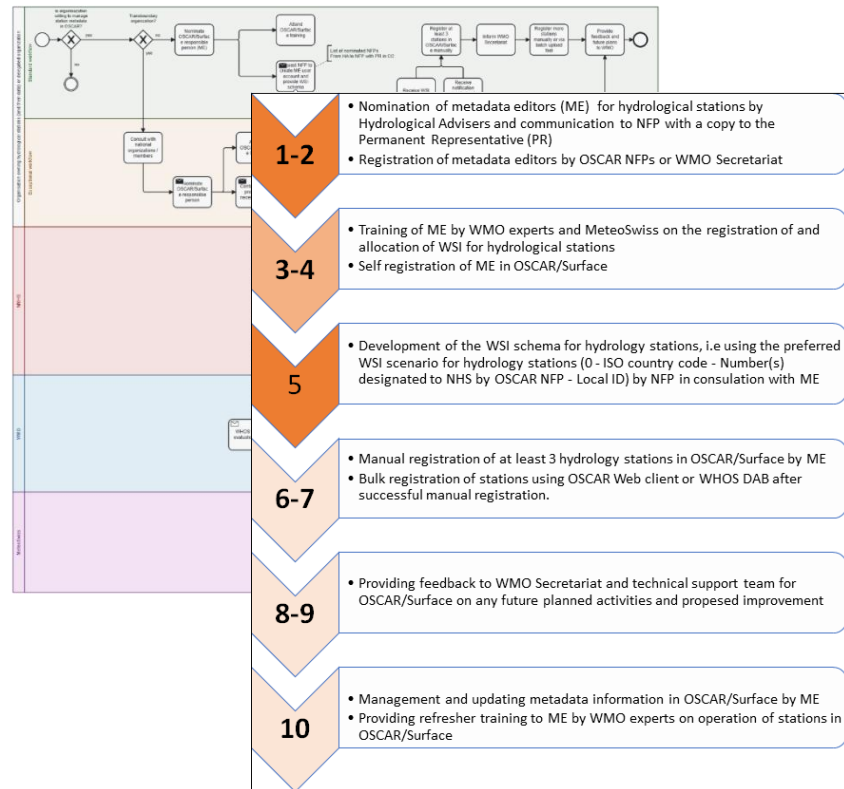
1- Nomination of responsible person(s) for metadata management in OSCAR/Surface,

2- Attendance of training on OSCAR/Surface and allocation of WSIs,

3- self-registration in OSCAR/Surface and discussion on WSI schema allocation with NMHS/WMO Secretariat,

4- Registration of hydrological stations in OSCAR/Surface,

5- Feedback to WMO Secretariat and further training.





Before we start...

Key information and links

- OSCAR/surface productive environment: <https://oscar.wmo.int/surface>,
- OSCAR/surface test environment: <https://oscardepl.wmo.int/surface> (sand box, content overwritten weekly)
- OSCAR/Surface web-client: <https://oscar.tools.wmo.int/web-client/> (production and test)
- [FAQs](#) → [PDF with self-registration steps](#)
- [Useful links](#)
 - OSCAR/Surface user manual
 - WIGOS learning portal
 - ...
- [WMDS](#) and [Code lists](#)
- To request support or provide feedback:
 - <https://oscar.wmo.int/surface/#/support>
 - <https://oscar.wmo.int/surface/#/feedback>

Keywords

- Wigos Station Identifier (WSI): unique ID for stations in OSCAR/Surface
- National Focal Point (NFP): OSCAR/Surface role, user responsible for all stations in the country of responsibility
- Metadata Editor (ME): OSCAR/Surface role, user delegated by the NFP to manage stations in the country of responsibility



Demonstration

- WSI Allocation for Hydrology Stations
- Manual registration
- Batch and automatic registration



Manual registration

1/2

<https://oscardepl.wmo.int/surface>

1. Management console

- My stations → all editable stations or drafts
- Register new station

2. Generic form / templates

3. Basic / advanced form

4. Tooltips

5. Historization

- From
- From/to

6. Date picker

Note: This is a test environment, use OSCAR for the operational environment.

Homepage > Management > Stations > Register new station > Generic form

Save as draft Submit Cancel

Register new station

If you would like to register a station with OSCAR please complete the following form. Alternatively, you can register a station by using an existing one as a template, by locating it in "My stations" and selecting the Copy action.

(*) = Mandatory field in OSCAR/Surface to save the station
(**) = Mandatory field according to the WIGOS Metadata Standard

Station characteristics

☒ Basic view ☐ Advanced view

1. **2.**

3. **4.**

5. **6.**

Add country / territory

Country / territory

From

Insert Close



Manual registration

2/2

1. Red /blue mandatory elements, based on WMDS
2. Upload of photos, documents, bibliographic references
3. Draft / submitted stations

1.

Date closed:

Station type:

Regional WIGOS Center:

Station class(es):

Declared reporting status:

Assessed reporting status:

Country / territory: [Add country / territory](#)

WIGOS Station Identifier(s): [Add WIGOS Station Identifier](#)

Coordinates: [Add latitude / longitude / elevation / geopositioning method](#)

WMO region: [Add time zone](#)

Time zone: [Add time zone](#)

Supervising organization: [Add supervising organization](#)

Climate zone: [Add climate zone](#)

Predominant surface cover: [Add predominant surface cover](#)

Topography or bathymetry: [Add topography or bathymetry](#)

Population in 10km / 50km (in thousands): [Add population](#)

Programs / network affiliations [?](#)

[Add program / network affiliation *](#)

> Observations / measurements

> Station contacts

2. > Bibliographic references

> Documents

3.



- Scope: batch registration and updates of stations for a limited number of metadata
- Prerequisite: machine2machine token

<https://oscar.tools.wmo.int/web-client/>

The screenshot displays the WMO OSCAR/Surface - Web Client Tool interface. At the top, the WMO logo and title are visible. Below the header, there is a search bar and a table of station metadata. The table columns include Name, WMO Station Identifier, Type, Latitude, Longitude, Altitude, Location, Country, Region, International, Metadata observed, Operational status, Affiliations, International reporting schedule, Automatic data, and Station status. The table is currently empty, showing only the header row. On the left side, there is a sidebar with 'Station(s) Submission options'. On the right side, there is a sidebar with 'Station(s) submission status'. At the bottom, there is a 'Submit' button and a 'Download template' link. The 'Submit' button is highlighted with a red circle.



- Home

Search

Critical review

Management

Q Search

Note: This is a test environment, use OSCAR for the operational environment.

Stations

Register new station

Generic form

GEON Surface Land Station

SYNOPSIS template

AWS template

Pilot station template

Radiosonde template

GEON Upper-air Station

Test s/f

Pending approvals

My stations

Vision station cluster

Add program / network affiliation

Contacts

Register new contact

My contacts

Manage machine access

Homepage > Management > Contacts > Manage machine access

Generate security token for Cappelletti

I accept the conditions for use of security tokens as specified in the [General conditions for use of this application]

Generate

Security token

[hidden content]

This token is only displayed once, immediately after generation. Please copy the token and embed it in your scripts. The token needs to be sent in the HTTP header "X-WMO-WMCR-Token" with each request.

Expiration date

2025-11-26

Revoke existing security token

Revoke

-
- The screenshot displays the WHO OSCAR/Surface - Web Client Tool interface. The main table lists vaccine events with columns for Name, Date, Status, Priority, Comments, and others. Annotations highlight specific features: 'Dropdowns' for the 'Status' and 'Priority' columns, 'Special content/ format required' for the 'Comments' column, and 'Checkboxes - Click twice for "no"' for the 'Comments' column. A sidebar on the right shows a 'Variables' section with 'Comments' and 'Affiliation' selected, and a 'Year selection' section with 'Year' and 'Month' selected.



Automatic registration

- REST API endpoint for machine to machine exchange
- WMDR XML upload
- Authentication via token (same as for batch upload)

Available options

- Create your own WMDR XML and upload tool
- Expose your station metadata via an already existing WHOS compliant service and let the WHOS DAB broker handle the WMDR XML generation and submission



Questions and AoB