

The WMO OSCAR/Surface Training for Region VI

26 November 2025, 09:00 – 10:40 CET

Allocation for WIGOS Station Identifiers and Registration of Hydological
Stations

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Subgroup of WTFH under TT-WOT/ET-WTR



WORLD
METEOROLOGICAL
ORGANIZATION



WSI STRUCTURE

Format: 4 blocks with numbers and characters

WSI Scenarios for hydrology stations

Block (content type)	1 st block (number)	2 nd block (number)	3 rd block (number)	4 th block (character)
Description/ Name	WIGOS Identifier Series	Issuer of Identifier	Issue number	Local Identifier
Features	Allows future expansion	Allows to distinguish between identifiers issued by different organizations	Allows sub-delegation	Allocated to station
Range	0	0...65534	0...65534	16 characters
Example 1	0	20000	0	06700
Example 2	0	124	0	73033

Scenario	WIGOS ID Series	Issuer of ID (Country ISO Code)	Issue number(refer to WMO No. 1165 WIGOS Guide, section 2.3.2) <u>Delegated authority</u>	Local ID
A1	0	1-999	0	To be defined by Member
A2	0	004-999	1...65534 (National organizations)	To be defined by organization
B1	0	21016	0	AC, BB, H, H, H (International Hydrological Code)
B2	0	21016	AC, BB (Basin indicator)	To be defined by: - WHOS or Organization



Free* assignment by the country, allows delegation based on i.e. organisation, network, basin, ..

Preassigned, 0 for stations

Free assignment by the country/ organisation*

* based on national WIGOS Implementation Plan

ISO Country number, if assigned by the country.
Program-related, if assigned by the WMO secretariat or Program Focal Point.

PREFERRED WSIs ALLOCATIONS SCENARIOS FOR HYDROLOGY

Scenario	WIGOS ID Series	Issuer of ID (Country ISO Code)	Issue number(refer to <u>WMO No. 1165 WIGOS Guide, section 2.3.2</u>)	Local ID
A1	0	1-999	0	To be defined by Member
A2	0	4-999	1...65534 (Number allocated to NHS by NFP for OSCAR)	To be defined by organization
B1	0	21016	0	AC _i BB _i H _i H _i H (International Hydrological Code)
B2	0	21016	AC_iBB (Basin indicator)	To be defined by: - WHOS or Organization

2 possible main scenarios for hydrological stations:

- Scenario 1: Allocation via country (NMHS) or organisation
- ❑ 0 – (ISO Country code) - .. - .. i.e 0-72-800-7024 (Boro River at Bokwi station for Botswana)

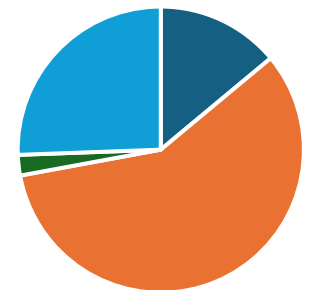


•Scenario 2: Allocation via WMO Secretariat (WHOS)

- ❑ 0 – 21016 - .. - .. i.e 0 – 21016- 17200- 7024

NB: 2101 is the code for WHOS

Preferred

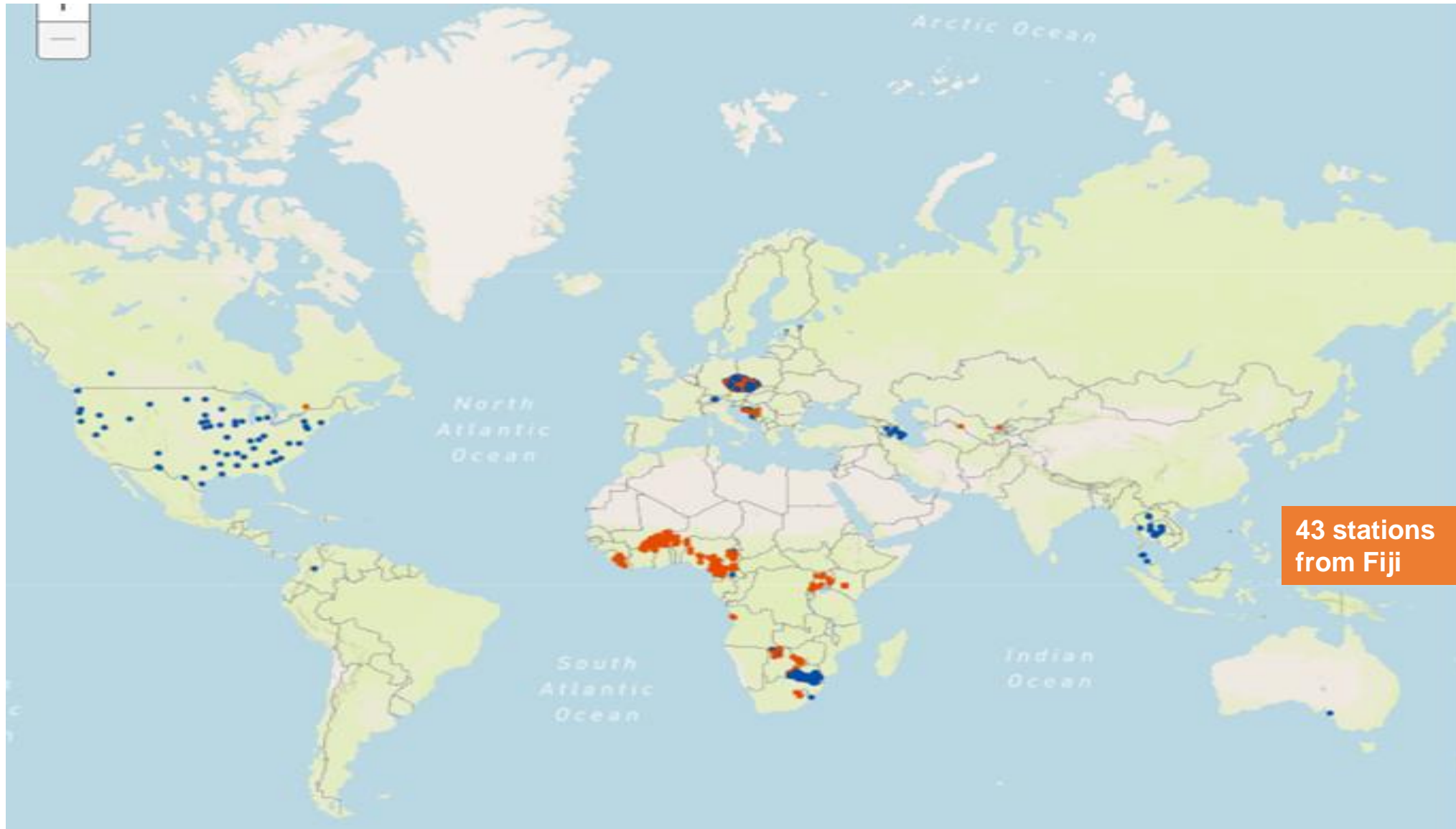


■ A1 ■ A2 ■ B1 ■ B2

WSI ALLOCATION SUMMARY

- OSCAR NFPs develops the schema, allocates and communicates organization number for NHS or organization i.e 0-72-800-Local ID for hydro stations. 800 is the NHS number
- Metadata editor then inserts the local id of each station i.e for Botswana: 0-72-800-7024, 0-72-800-7415, 0-72-800-7425, etc
- For all stations the systems have local IDs, therefore
 - With A2 scenario: 0 - ISO country code - **Number allocated to NHS** - Local ID, unknown is **block 3**.
 - With B2 (allocated by WMO secretariat): 0 - 21016 - **RegionCountryBasin** - Local ID. **Region: 1-6, country: ISO country code, Basin:** Local, international or basin code otherwise default 0)

WIGOS Tools: OSCAR Surface ...Implementations



**Over 2464
hydrological
stations
already
registered**

**43 stations
from Fiji**

Request
to register
more
hydrology
stations

Stations Registration in OSCAR/Surface: Filling the form

- ***“Station characteristics” section:***
 - Station name*: Official name of the station
 - **Station alias**: indicate river name/basin name, in English and/or local language(s). Switch to advance view
 - Date established*:
 - **Station type***: select “land(fixed)” for groundwater or atmospheric parameters (air temperature, precipitation,), otherwise select “lake/river (fixed)” .
 - Country / Territory*:
 - **WIGOS Station Identifier***: see options for allocation of WSIs.
 - Coordinates*: Latitude, longitude and elevation expressed in EGM96 WGS-84.
 - WMO Region*: The WMO Region where the station is located.
 - **Supervising organization***:
 - **Site description**: describe the type of site, station housing and other additional important information about the station
 - **Program/network affiliation***: WHYCOS (under WIGOS/WHOS branch) or non affiliated (under other components),
 - Program status is “operational” if the station is currently active. Figure x?

Stations registration in OSCAR/Surface: Using the form

- ***Measurements/observations section***, Measurement program/ Data series:
 - Variable*: select all variables measured at the station either navigating the variables tree to Terrestrial/hydrological or by typing the name into the search box
 - Geometry*: for each selected variable indicate the geometry of the observation:
 - **Program / Network Affiliation***: WHYCOS
 - Observed since*: date when the measurement of the variable started
 - Observing method*: method used to observe the variable.
- Once each mandatory field is filled then, click on “insert” to preview the metadata in a “tree-like” structure; and continue for other “data series”

Stations registration in OSCAR/Surface: Using Web Client Tool

- The OSCAR/Surface Web Client Tool is a web spreadsheet to upload metadata into OSCAR/Surface
- Still a manual process for bulk entry of initial site metadata, requires user intervention
- **How to authenticate:** an access token is needed, obtained generated under “Manage machine Access” under the “Management” tab.

How to use the OSCAR/Surface Web Client:

- Paste the token in the dedicated field in the the Web Client interface .
- Make sure the target environment is correctly set. The default setting is is “Dev” (test system).
- Follow instructions and Fill the spread correctly

Station(s)
Submission
options

WMO OSCAR/Surface - Web Client Tool

Create a new station

Token ID: [redacted]

Generate

	Name	WMO Station Identifier	Type	Latitude	Longitude	Altitude	Creation	Country	Region	International	Variables observed	Operational status	Affiliations	International reporting schedule	Automatic station	Status
1	Bekingen	0-756-3-24	Lake/River (fixed)	47.5708	8.338138	330	1904-01-01	Switzerland	Europe	<input type="checkbox"/>	171	operational	WHYCOS	Jan-Dec/Mon-Sun/00:00-23:59/600	<input type="checkbox"/>	related
2										<input type="checkbox"/>					<input type="checkbox"/>	
3										<input type="checkbox"/>					<input type="checkbox"/>	
4										<input type="checkbox"/>					<input type="checkbox"/>	
5										<input type="checkbox"/>					<input type="checkbox"/>	
6										<input type="checkbox"/>					<input type="checkbox"/>	
7										<input type="checkbox"/>					<input type="checkbox"/>	
8										<input type="checkbox"/>					<input type="checkbox"/>	
9										<input type="checkbox"/>					<input type="checkbox"/>	
10										<input type="checkbox"/>					<input type="checkbox"/>	
11										<input type="checkbox"/>					<input type="checkbox"/>	
12										<input type="checkbox"/>					<input type="checkbox"/>	
13										<input type="checkbox"/>					<input type="checkbox"/>	
14										<input type="checkbox"/>					<input type="checkbox"/>	
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28										<input type="checkbox"/>					<input type="checkbox"/>	
29										<input type="checkbox"/>					<input type="checkbox"/>	
30										<input type="checkbox"/>					<input type="checkbox"/>	

Show optional fields ☐ No Download template

Current version: UI-0.0.10 Middleware-0.0.8 Library-0.79

Clear Submit

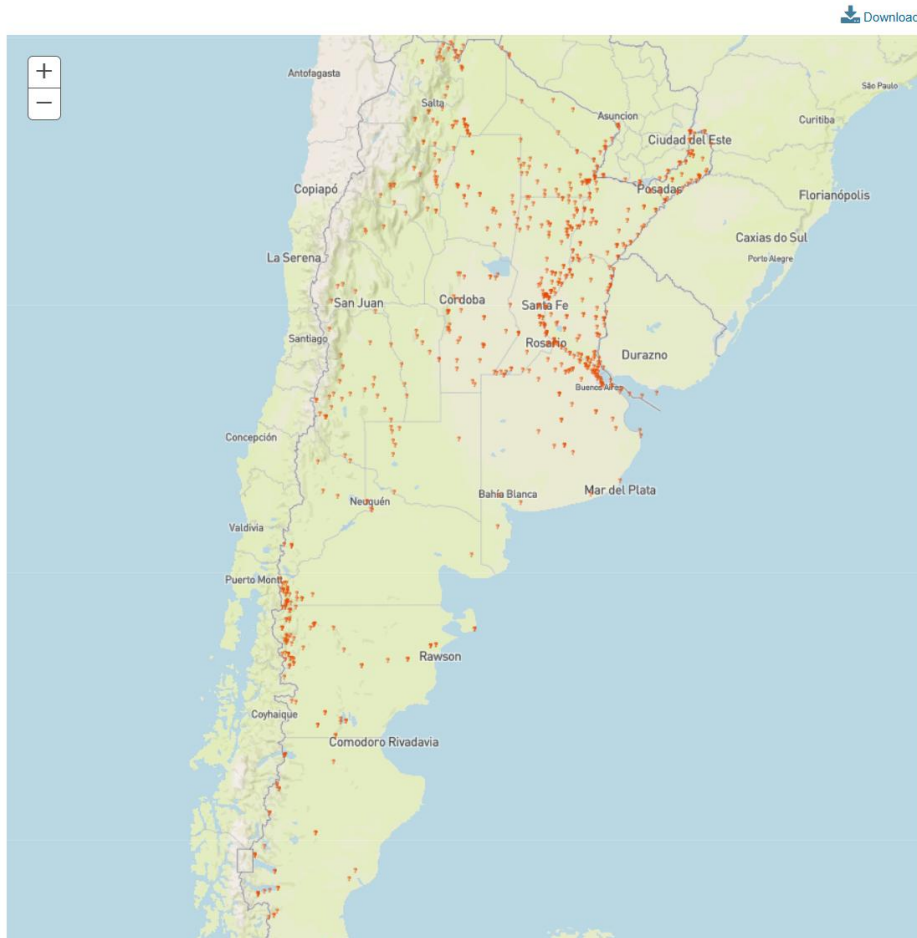
Station(s)
submission status

For more details of registration of hydrology stations on OSCAR/Surface: [Link](#)

Stations registration in OSCAR/Surface: Using WHOS DAB

762 stations / platforms found.

The results shown on the map refer to the station declared status.



Pilot registration of Argentina Stations –DAB-INA Web Service

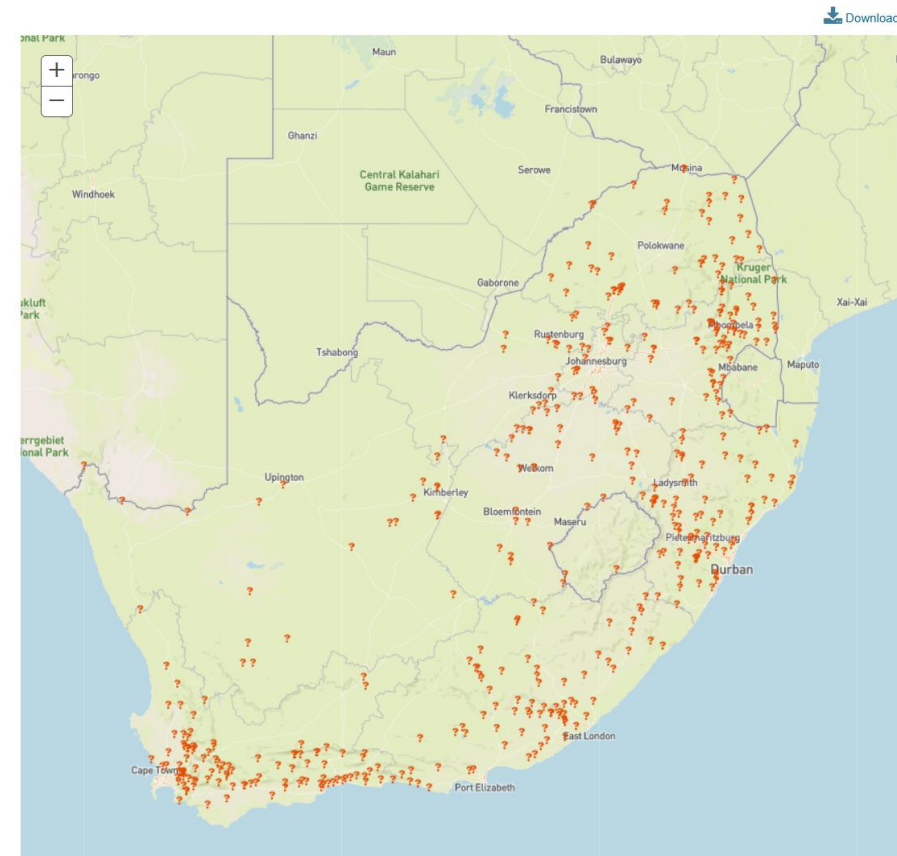
Link: [Observing Systems Capability Analysis and Review Tool \(OSCAR\)](#)

Search by: Instituto Nacional del Agua (INA)

Search results

452 stations / platforms found.

The results shown on the map refer to the station declared status.



Pilot registration of South Africa Stations –DAB-GRDC Web Service

Link: [Observing Systems Capability Analysis and Review Tool \(OSCAR\)](#)

Search by: South Africa - Department of Water and Sanitation (DWA)

Thank you

WT4H and TT-WOT/ET-WTR