

Introduction to OSCAR/Surface (Functional description)

*... Supporting adequate use of observations
& rational network evolution*

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WMO OMM

World Meteorological Organization
Organisation météorologique mondiale

Outline

- Introduction
 - WIGOS Metadata Standard vs OSCAR/Surface
- Basic functionality
 - View information
 - Add/edit information
- Summary

INTRODUCTION

HTTP://OSCAR.WMO.INT/SURFACE

Quick access

Generate station report by:

Generate station lists by:

Find people by:

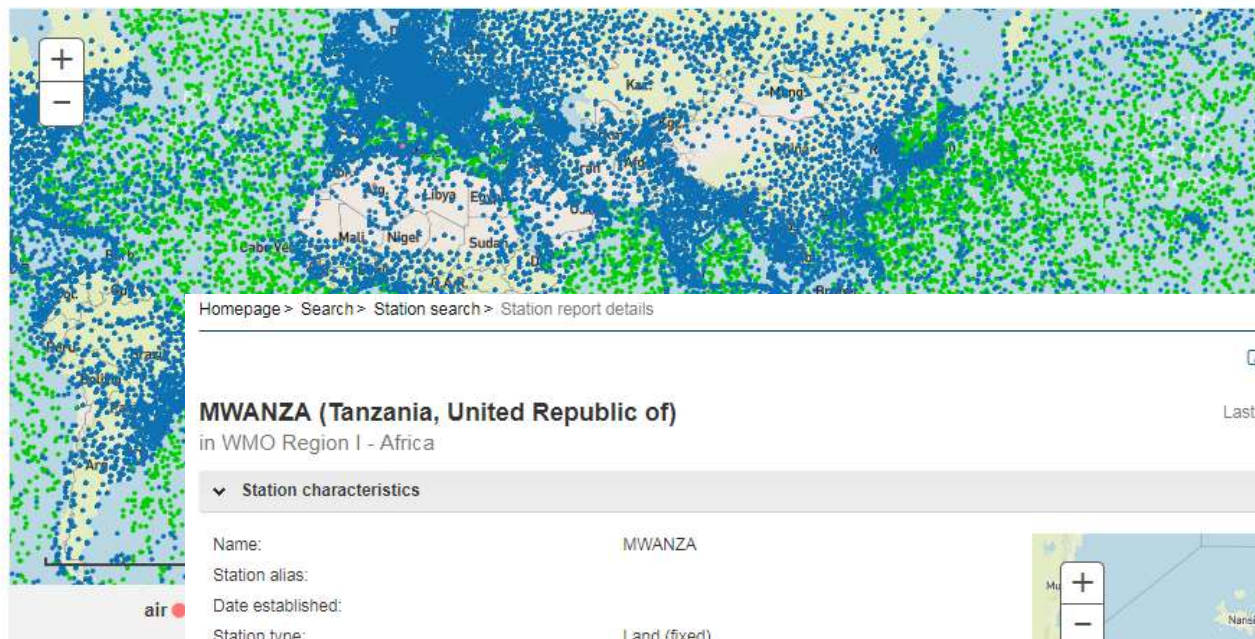
Filter map

By program / network:

☒ WIGOS components☒ GOS☒ GAW☒ WHOS☒ GCW

Welcome to OSCAR/Surface

OSCAR/Surface is the World Meteorological Organization's official repository of WIGOS metadata for all surface-based observing stations and platforms. For more details on OSCAR, please visit the [About](#) section. For additional information about WIGOS, visit the [WIGOS Homepage](#).



Homepage > Search > Station search > Station report details

[Edit](#) [Download](#)

MWANZA (Tanzania, United Republic of)

in WMO Region I - Africa

Last updated: 2016-04-28

Station characteristics

Name: MWANZA

Station alias:

Date established:

Station type:

Station class(es):

Land (fixed)

Class	From	To
A (Aerodrome)	2016-04-29	

WIGOS Station Identifier(s):

WIGOS Station Identifier	Primary
0-20000-0-63756	<input checked="" type="checkbox"/>

WMO region:

I - Africa

Country / Territory:

> Tanzania, United Republic of

Coordinates:

> 2.4666666667°S, 32.9166666667°E, 1139m

Time zone:

Supervising organization:

> TMA

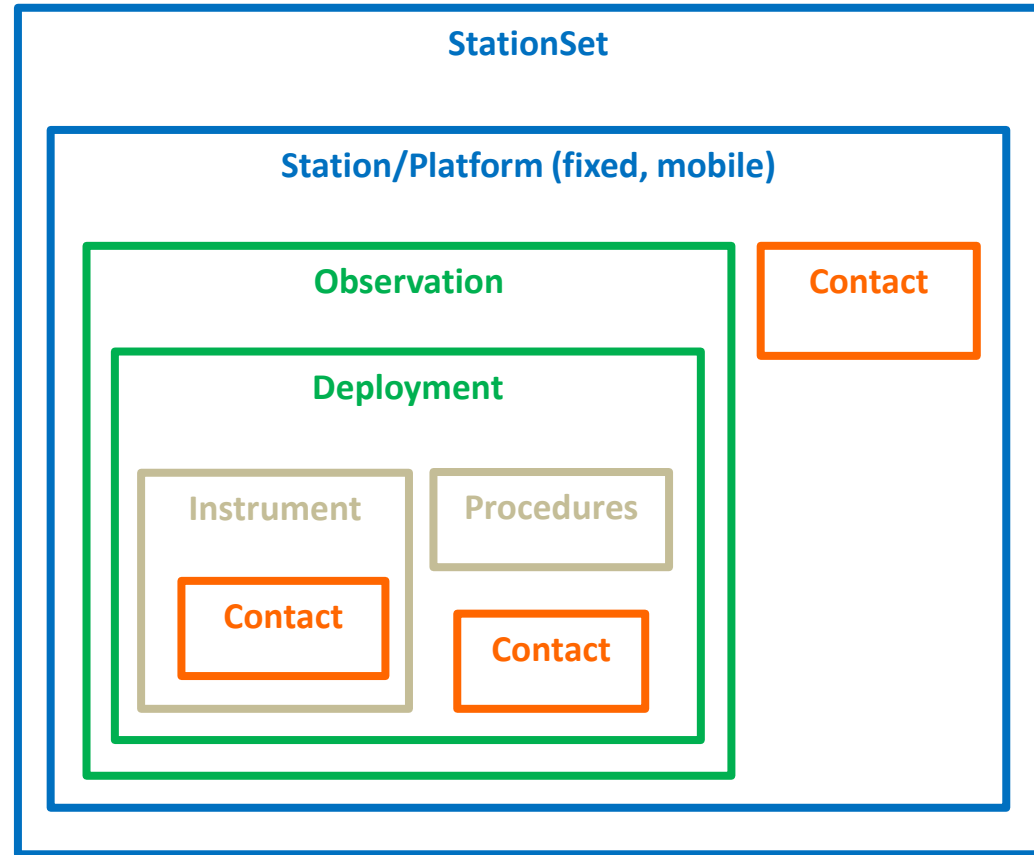
Station URL:



WMDS vs OSCAR/Surface

1. Observed variable
2. Purpose of observation
3. Station/ platform
4. Environment
5. Instruments & methods of observation
6. Sampling
7. Data processing and reporting
8. Data Quality
9. Ownership and Data Policy
10. Contact

→ Defines categories and elements
→ «flat»

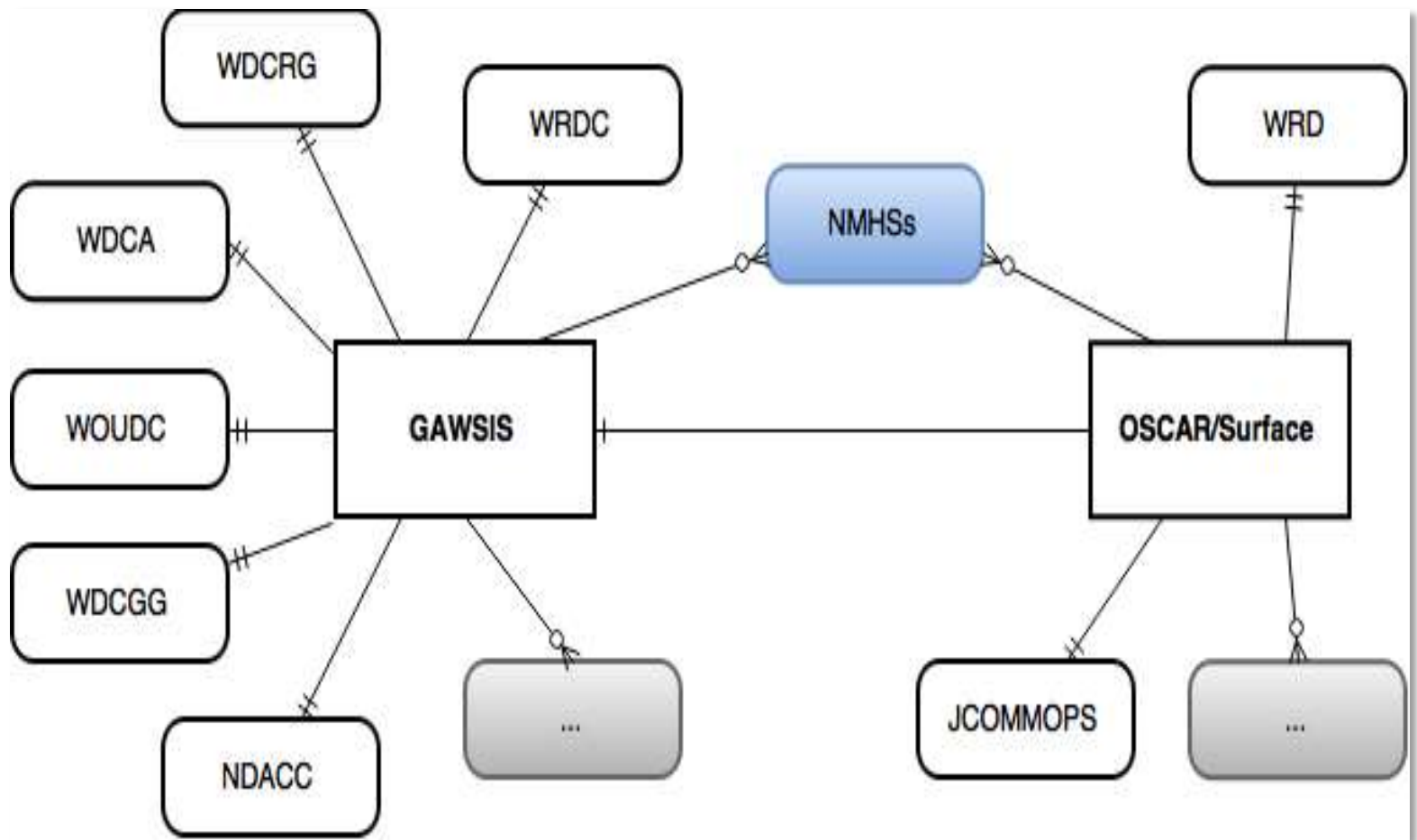


→ Reference implementation of WMDS
→ Hierarchical structure

Scope of OSCAR/Surface

- Land, ocean, lower and upper atmosphere
- Fixed, mobile observing facilities
- In situ, remote-sensing instruments (surface-based)
- Physical, chemical, hydrological (and biological?) observations
- Observations serving weather, climate, warnings, environment ...

OSCAR/Surface metadata sources



VIEW INFORMATION

OSCAR quick access & reports

Quick access
&
Map filter

Quick access

Generate station report by:

Station name

WMO ID

Generate station lists by:

Country

Program

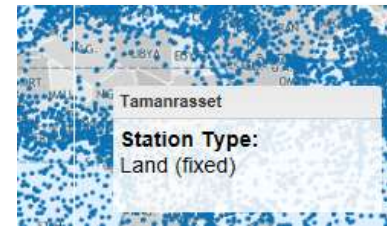
Find people by:

Contact name

Filter map

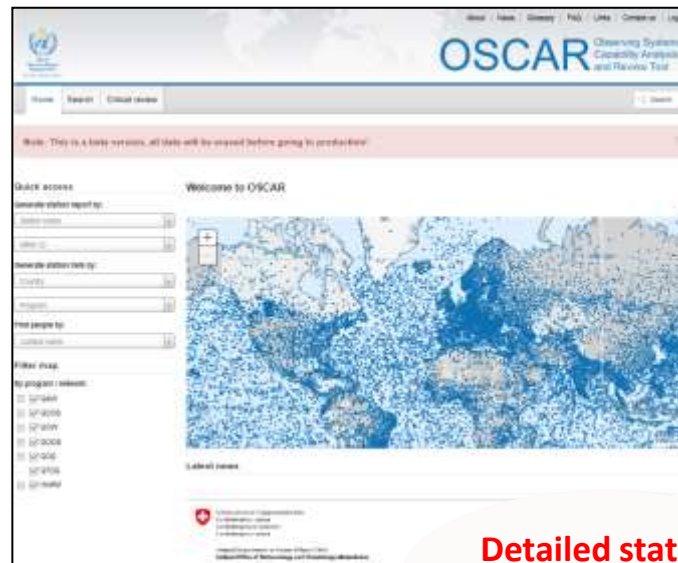
By program / network:

- ☒ GAW
- ☒ GCOS
- ☒ GCW
- ☒ GOOS
- ☒ GOS
- ☒ GTOS
- ☒ HWRP



+ click

=




Detailed station
report



OSCAR search results

Search results



- Download map as PNG
- Download map as JPG
- Download map as GIF
- Download map as EPS
- Download map as KML
- Download results as XML
- Download results as CSV

WMO RA	Country	Station	Coordinates	Actions
Asia	China	SHANTOU	116.666666666667 23.350000000000	
Asia	China	SHANTOU	116.666666666667 23.350000000000	
Asia	China	SHANTOU	116.666666666667 23.350000000000	

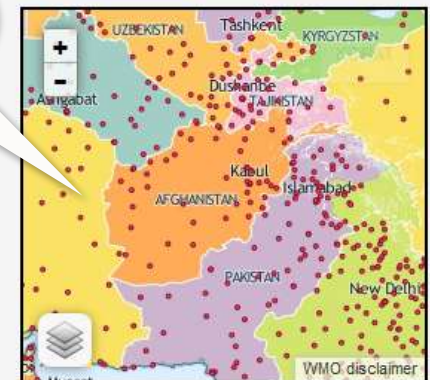
Download for further analysis

```
<?xml version="1.0"
- <list>
- <Station>
  <wmoRa>Asia</wmoRa>
  <country>China</country>
  <station>SHANTOU</station>
  <latitude>23.35</latitude>
  <longitude>116.666666666667</longitude>
  <elevation>4</elevation>
  <wmoIndex>0-20001-0-59316</wmoIndex>
</Station>
- <Station>
  <wmoRa>Asia</wmoRa>
  <country>China</country>
```

Integrate with geospatial tools
GoogleEarth,
QuantumGIS, ...



Mashup for online maps

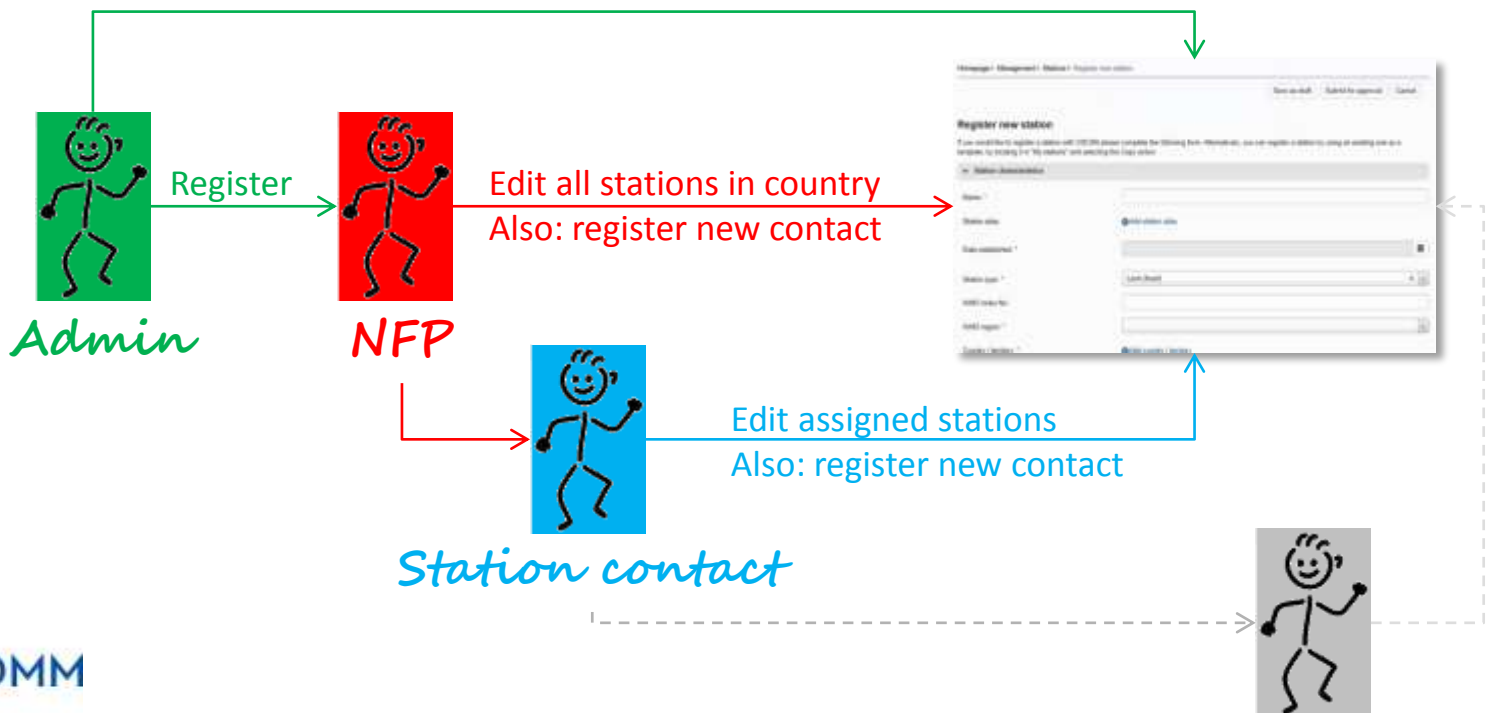
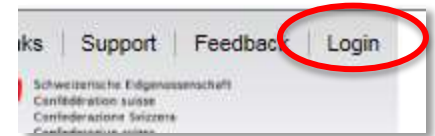


Click a country to view the country profile page.
Click [here](#) for a fullscreen map.

ADD/EDIT INFORMATION

Security and user management

- **Authentication** by identity provider (Swiss Government)
- **Authorization** within application based on «trust-relationships» and various «user roles»



OSCAR management console

- Stations
 - Basic characteristics
 - Photos
 - History
- Observations
 - Location
 - Variable
 - Methods
 - Instruments
 - Quality and uncertainty
 - History
- Contacts
- Bibliographic references & documents

Homepage > Management > Stations > Register new station

Save as draft Submit for approval 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.

Station characteristics

Name: *

Station alias: [Add station alias](#)

Date established: *

Station type: *

WMO index No:

WMO region: *

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

Country / Territory	From	Actions
Switzerland	1988-05-10	Edit Delete

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

Time zone: * [Add time zone](#)

Support and further help

- OSCAR/Surface helpdek
 - 1st and 2nd level support
 - Operated by MeteoSwiss
- OSCAR/Surface Learning Resources Portal on WMO Moodle site
 - Presentations
 - Videos
 - Discussion forums
 - OSCAR/Surface blog
- OSCAR/Surface User Manual
- WMO OSCAR team (oscar@wmo.int)

Why is OSCAR useful

- International exchange (GTS)
- Planning (RRR process)
- Get funding
 - Document that instruments are missing
 - Document impact of projects on network
- Better understand observations
- As a national DB
- Regulatory obligation

SUMMARY

- OSCAR/Surface implements the WMDS by specializing many of the categories/elements
- GUI provides look-up, search filters, and a comprehensive management console
- Quality of metadata needs to be checked, completeness of metadata improved
 - Your NMHS and related organizations are needed for OSCAR/Surface to be of benefit for all, including yourself!

Thank you

<https://community.wmo.int/activity-areas/wigos>



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