

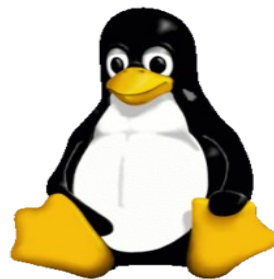
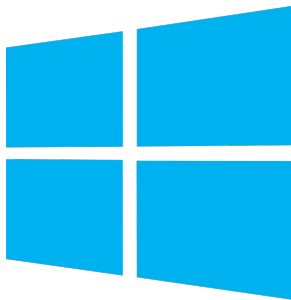
## TurboWin+ version 3.3

Accurate measurements are in the first place from vital interest as input for making good weather and wave forecasts and for climate monitoring but also for the ships crew for getting a good overview of the actual weather conditions around the ship and even, in a later stage, for insurance purposes. The TurboWin+ application can help herewith

TurboWin+ covers four areas of marine surface measurements

- Support of full manual observations
- Support of a mixture of manual observations and automated measurements
- Support of automated pressure measurements (APR)
- Support of Automatic Weather Stations (possibly supplemented with manual observed data)

This new version provides mainly an update of the areas full manual observations and AWS support availability:



The new version is available as a 32 and 64 bit Windows and Linux application.

FOSS (Free and open-source software)

TurboWin+ is both free software and open-source software. This allow users to run the software for any purpose as well as to study, change, and distribute it and any adapted versions. Anyone is freely licensed to use, copy, study, and change the software in any way, and the source code is openly shared on GitHub. (GPLv3 open-source license)

URLs:

TurboWin+ download: <https://projects.knmi.nl/turbowin/download.html>

TurboWin+ source code: [https://github.com/KNMI/turbowin\\_plus](https://github.com/KNMI/turbowin_plus)

TurboWin+ project management (password required): <https://www.taskjunction.com/>

TurboWin+ is a project of E-Surfmar: <http://eumetnet.eu/activities/observations-programme/current-activities/e-surfmar/>

about TurboWin+

**TurboWin+ 3.3.0 [64-bit] (build 8-July-2019)**

[TurboWin+ was made possible by E-SURFMAR](#)

Endorsed by EUMETNET (European Meteorological Services Network),  
NOAA (National Oceanic and Atmospheric Administration)  
and WMO (World Meteorological Organization) for use  
onboard voluntary observing ships

TurboWin+ is free software and open-source software (GPLv3)



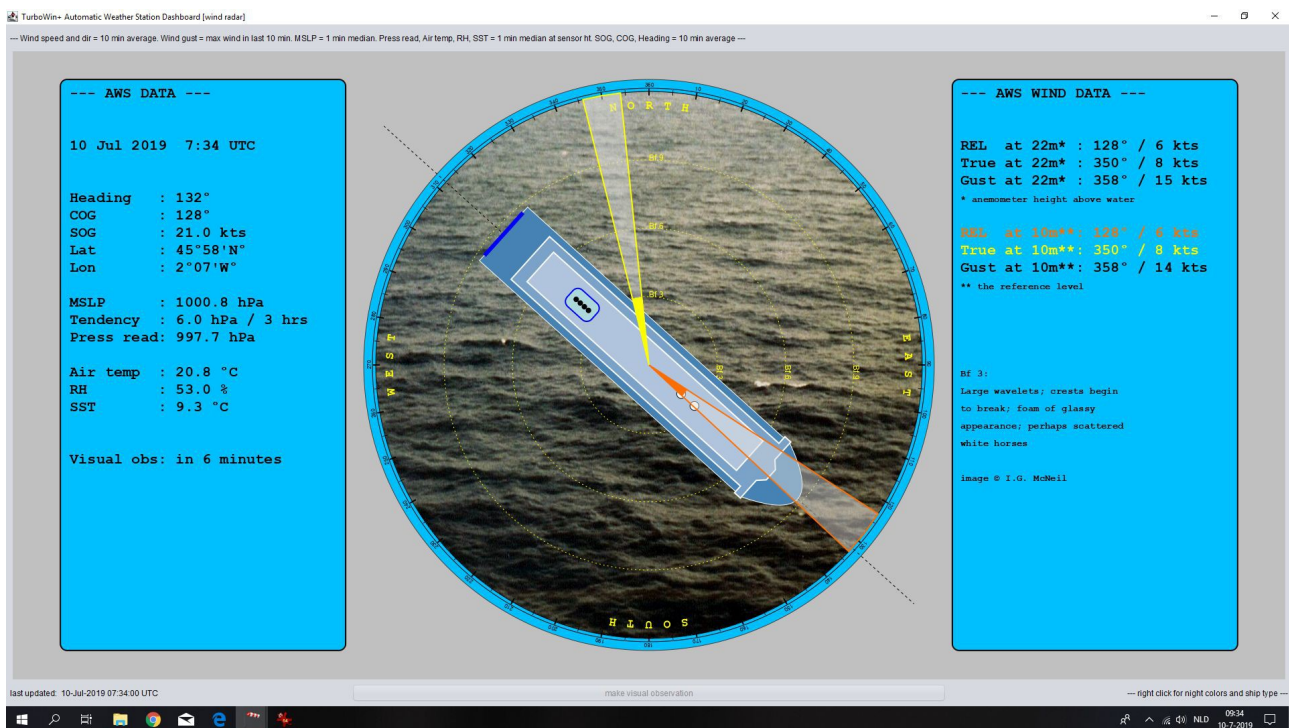
[Visit the TurboWin Web Site](#)

OK

Highlighted new items in this version:

- AWS (Automatic Weather Station) mode added three (Ferry, Ro-Ro ship and Research vessel) new ship types. Now the total graphical unique(!) set of ship types, selectable for the hybrid dashboard and the wind radar dashboard, are:
  - container ship
  - bulk carrier
  - LNG tanker
  - oil tanker
  - passenger ship
  - general cargo ship
  - 'neutral' ship
  - ferry
  - Ro-Ro ship
  - research vessel

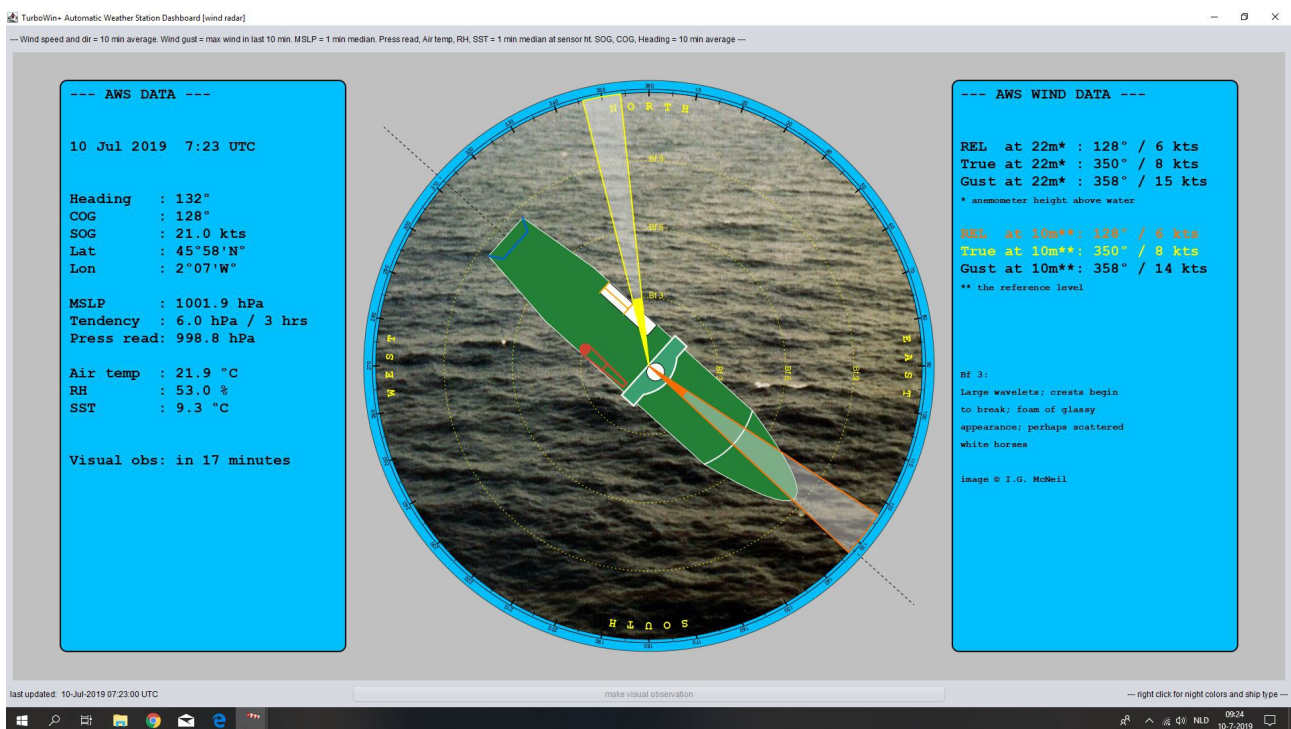
Most ship types are covered by this set. All types in day and night mode available by one single mouse click



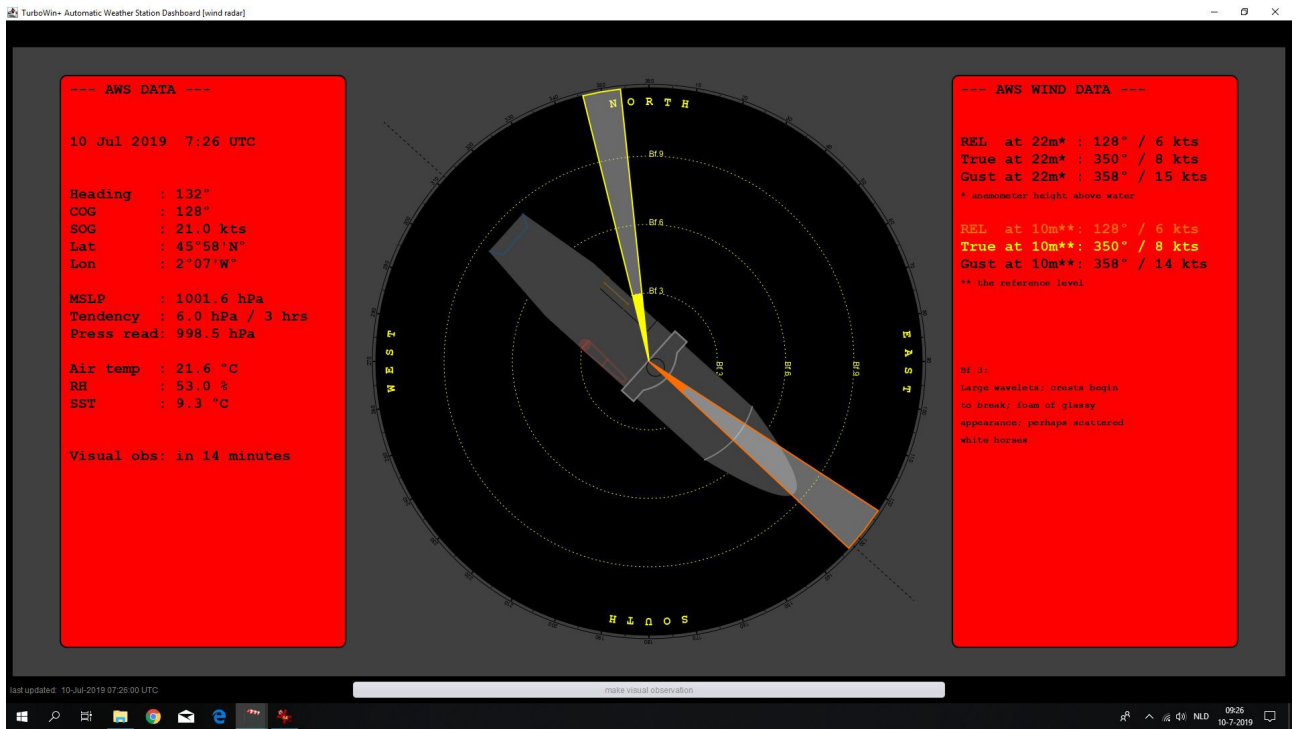
wind radar dashboard with Ferry in day mode



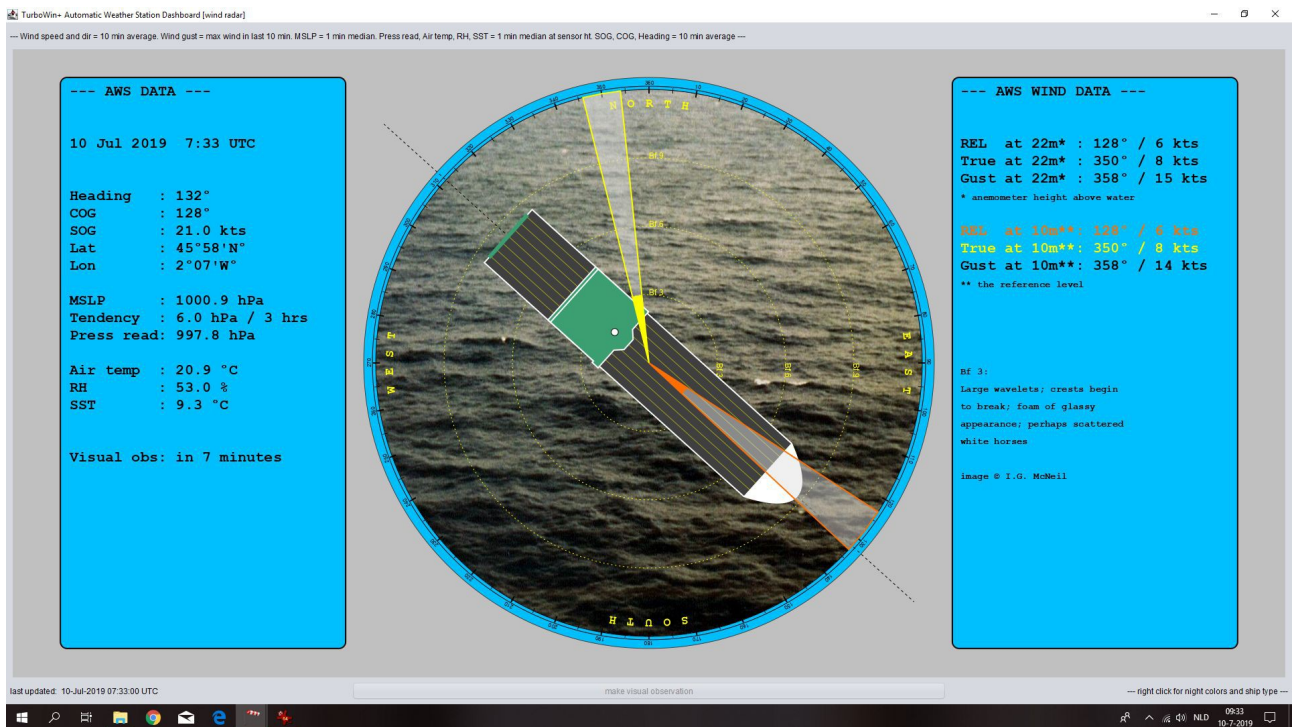
wind radar dashboard with Ferry in night mode



wind radar dashboard with research vessel in day mode

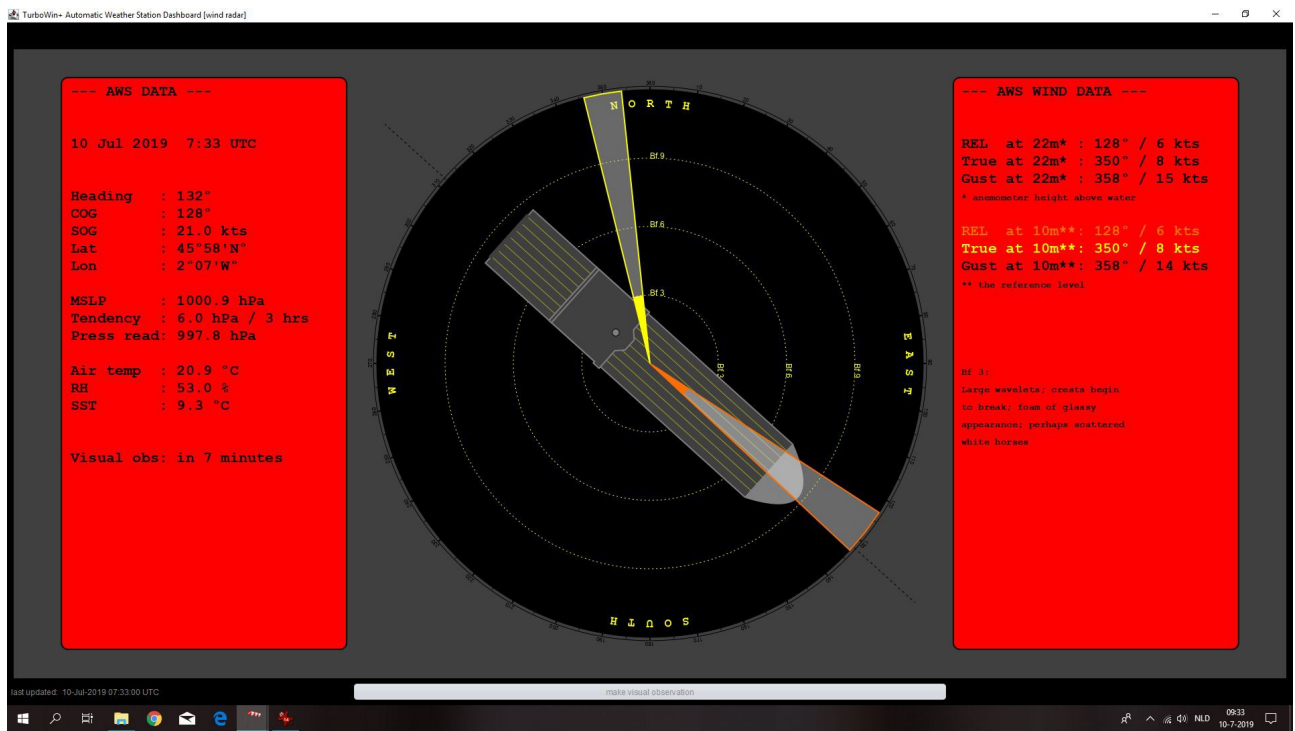


wind radar dashboard with research vessel in night mode



wind radar dashboard with Ro-Ro ship in day mode

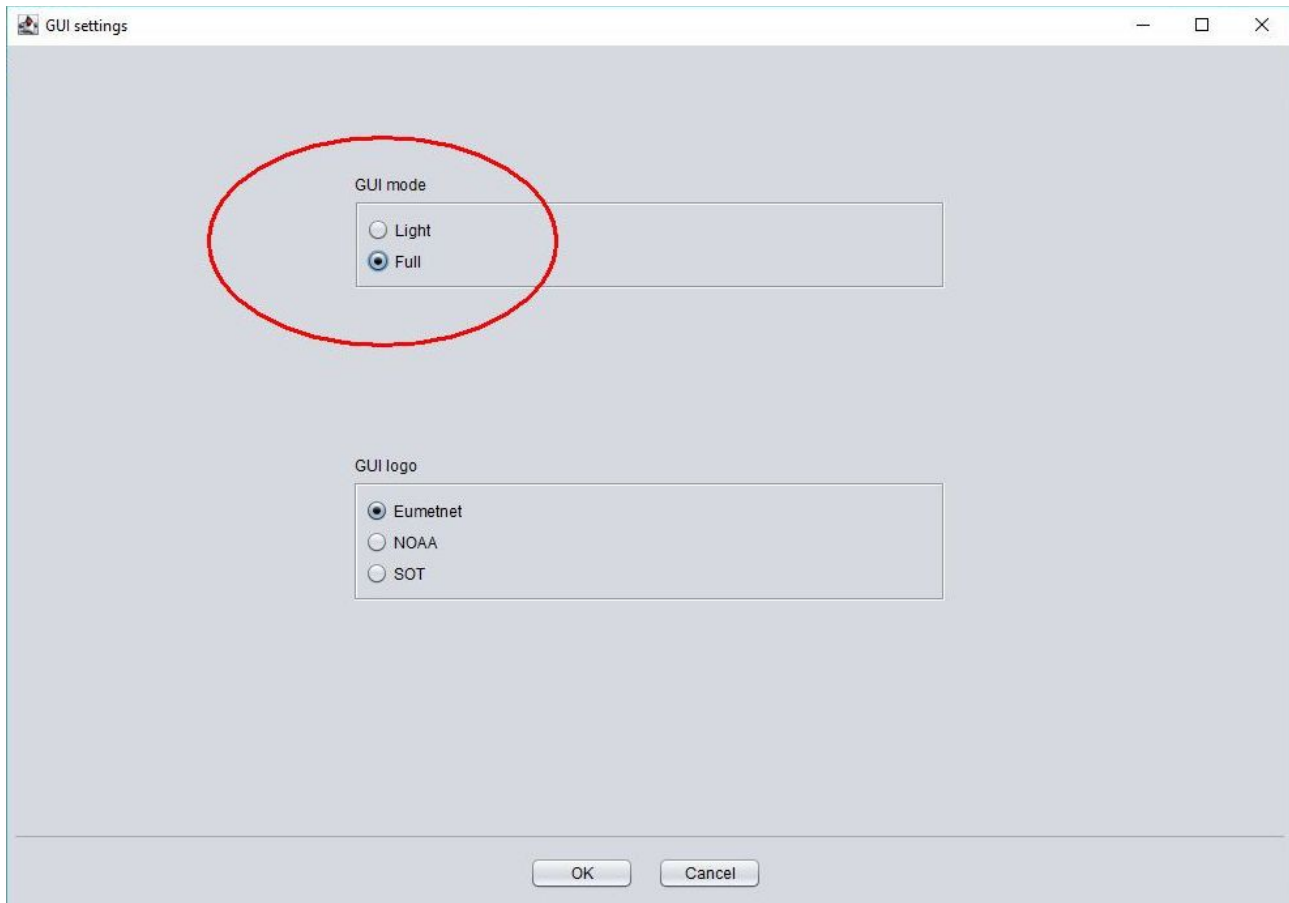




wind radar dashboard with Ro-Ro ship in night mode

- TurboWin+ light mode

In Light mode all the references to the visual parameters Visibility, Waves, Present Weather, Past Weather and Clouds are removed. Changing mode from Full to Light and vice versa by a single mouse click



set Light mode (and logo)

TurboWin+ light

File Input Output Maintenance Themes Answer Graphs Dashboard Maps Info

Call sign: TESTNL

Masked call sign:

Date & Time obs: 10 July 2019 8.00 UTC

Position:

Course & Speed:

Pressure (read+ic):

Pressure (MSL):

Pressure tendency:

Char. press. tend.:

Air temp:

Wet-bulb temp:

Dew point:

Seawater temp:

True wind:

Apparent wind:

EUMETNET

Icing:

Ice:

Observer:

--- when minimised see system tray ---

--- adding data: input menu, popup menu, toolbar icons or click on the text labels or fields ---

TurboWin+ stand-alone mode

TurboWin+ main screen light mode (with EUMETNET logo)

TurboWin+ light

File Input Output Maintenance Themes Answer Graphs Dashboard Maps Info

Call sign: TESTNL

Masked call sign:

Date & Time obs: 10 July 2019 8.00 UTC

Position:

Course & Speed:

Pressure (read+ic):

Pressure (MSL):

Pressure tendency:

Char. press. tend.:

Air temp:

Wet-bulb temp:

Dew point:

Seawater temp:

True wind:

Apparent wind:

NOAA

Icing:

Ice:

Observer:

--- when minimised see system tray ---

--- adding data: input menu, popup menu, toolbar icons or click on the text labels or fields ---

TurboWin+ stand-alone mode

TurboWin+ main screen light mode (with NOAA logo)



TurboWin+ light

File Input Output Maintenance Themes Answer Graphs Dashboard Maps Info

Call sign

Masked call sign

Date & Time obs

Position

Course & Speed

Pressure (read+ic)

Pressure (MSL)

Pressure tendency

Char. press. tend.

Air temp


Wet-bulb temp

Dew point

Seawater temp

True wind

Apparent wind



Icing

Ice

Observer

--- when minimised see system tray ---

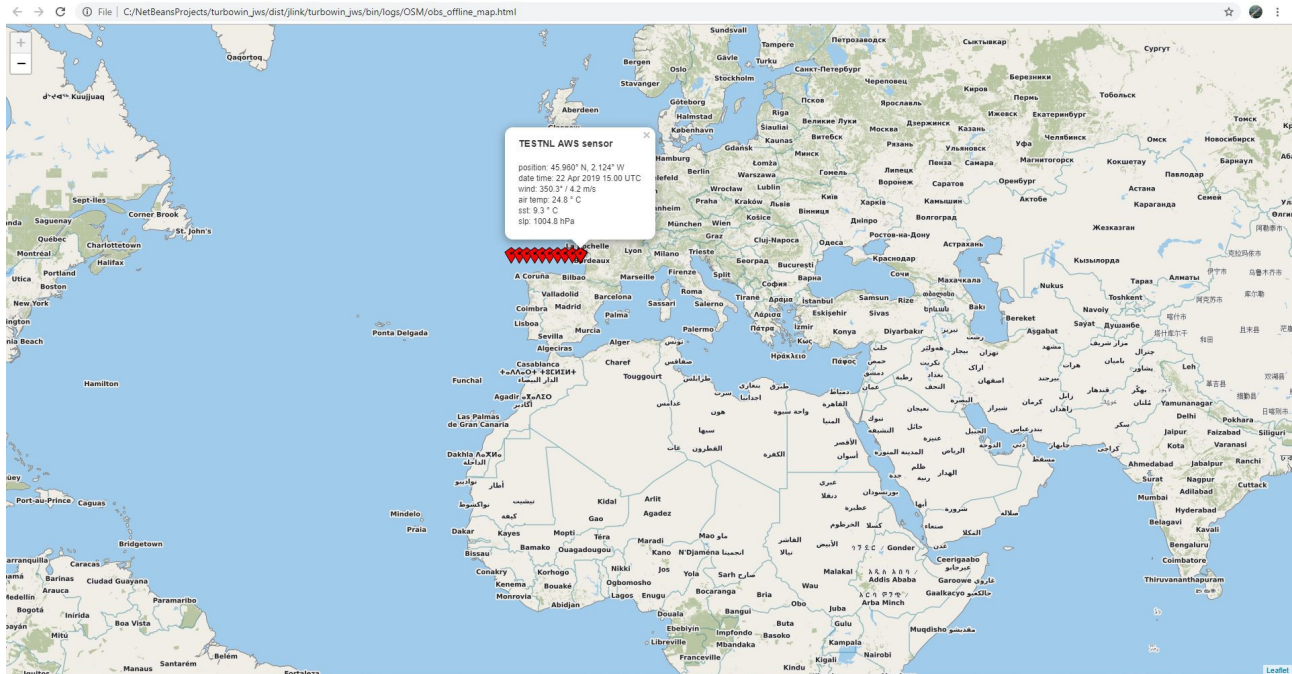
--- adding data: input menu, popup menu, toolbar icons or click on the text labels or fields ---

TurboWin+ stand-alone mode

TurboWin+ main screen light mode (with SOT logo)

- Offline OBS Map

In previous TurboWin+ versions it was possible to select an online Map with all stored observations. Now it is also possible to show all the stored observations on a offline Map (no internet required). Note: contrary to the online Map the offline Map has only a limited number of zoom levels. Available for full manual observations and for Automatic Weather Station measurements



offline observations Map

- Latest AWS (Automatic Weather Station) measurements

All the measurements of every whole hour for the last four weeks can be made visible on screen with the option to export these measurements to a JSON file

Latest AWS measurements

--- all measurements at sensor height, SLP excepted ---

Date/Time select: 22-Apr-2019 15:05:52 UTC

Date [UTC]	Time [UTC]	Lat [°]	Lon [°]	SLP [hPa]	Air temp [°C]	RH [%]	SST [°C]	wind speed true [m/s]	wind dir true [°]	wind gust true [m/s]
2019-04-22	15:00	45.960	-2.124	1004.8	24.8	53.0	9.3	4.20	350.3	7.80
2019-04-22	14:00	45.960	-2.124	999.0	19.0	53.0	9.3	4.20	350.3	7.80
2019-04-22	13:00	45.960	-2.124	1004.8	24.8	53.0	9.3	4.20	350.3	7.80
2019-04-22	12:00	45.960	-2.124	999.0	19.0	53.0	9.3	4.20	350.3	7.80
2019-04-22	11:00	45.960	-2.124	1004.8	24.8	53.0	9.3	4.20	350.3	7.80
2019-04-22	10:00	45.960	-2.124	999.0	19.0	53.0	9.3	4.20	350.3	7.80
2019-04-22	09:00	45.960	-2.124	1004.8	24.8	53.0	9.3	4.20	350.3	7.80
2019-04-22	08:00	45.960	-2.124	999.0	19.0	53.0	9.3	4.20	350.3	7.80
2019-04-22	07:00	45.960	-2.124	1004.8	24.8	53.0	9.3	4.20	350.3	7.80
2019-04-22	06:00	45.960	-2.124	999.0	19.0	53.0	9.3	4.20	350.3	7.80
2019-04-22	05:00	45.960	-2.124	1004.8	24.8	53.0	9.3	4.20	350.3	7.80
2019-04-22	04:00	45.960	-2.124	999.0	19.0	53.0	9.3	4.20	350.3	7.80
2019-04-22	03:00	45.960	-2.124	1004.8	24.8	53.0	9.3	4.20	350.3	7.80
2019-04-22	02:00	45.960	-2.124	999.0	19.0	53.0	9.3	4.20	350.3	7.80
2019-04-22	01:00	45.960	-2.124	1004.8	24.8	53.0	9.3	4.20	350.3	7.80
2019-04-22	00:00	45.960	-2.124	999.0	19.0	53.0	9.3	4.20	350.3	7.80
2019-04-21	23:00	45.960	-2.124	1004.8	24.8	53.0	9.3	4.20	350.3	7.80
2019-04-21	22:00	45.960	-2.124	999.0	19.0	53.0	9.3	4.20	350.3	7.80
2019-04-21	21:00	45.960	-2.124	1004.8	24.8	53.0	9.3	4.20	350.3	7.80
2019-04-21	20:00	45.960	-2.124	999.0	19.0	53.0	9.3	4.20	350.3	7.80
2019-04-21	19:00	45.960	-2.124	1004.8	24.8	53.0	9.3	4.20	350.3	7.80
2019-04-21	18:00	45.960	-2.124	999.0	19.0	53.0	9.3	4.20	350.3	7.80
2019-04-21	17:00	45.960	-2.124	1004.8	24.8	53.0	9.3	4.20	350.3	7.80
2019-04-21	16:00	45.960	-2.124	999.0	19.0	53.0	9.3	4.20	350.3	7.80
2019-04-21	15:00	45.960	-2.124	1004.8	24.8	53.0	9.3	4.20	350.3	7.80
2019-04-21	14:00	45.960	-2.124	999.0	19.0	53.0	9.3	4.20	350.3	7.80
2019-04-21	13:00	45.960	-2.124	1004.8	24.8	53.0	9.3	4.20	350.3	7.80
2019-04-21	12:00	45.960	-2.124	999.0	19.0	53.0	9.3	4.20	350.3	7.80
2019-04-21	11:00	45.960	-2.124	1004.8	24.8	53.0	9.3	4.20	350.3	7.80
2019-04-21	10:00	45.960	-2.124	999.0	19.0	53.0	9.3	4.20	350.3	7.80
2019-04-21	09:00	45.960	-2.124	1004.8	24.8	53.0	9.3	4.20	350.3	7.80
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2019-04-21	06:00	45.960	-2.124	999.0	19.0	53.0	9.3	4.20	350.3	7.80
2019-04-21	05:00	45.960	-2.124	1004.8	24.8	53.0	9.3	4.20	350.3	7.80
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2019-04-21	02:00	45.960	-2.124	999.0	19.0	53.0	9.3	4.20	350.3	7.80
2019-04-21	01:00	45.960	-2.124	1004.8	24.8	53.0	9.3	4.20	350.3	7.80
2019-04-21	00:00	45.960	-2.124	999.0	19.0	53.0	9.3	4.20	350.3	7.80
2019-04-20	23:00	45.960	-2.124	1004.8	24.8	53.0	9.3	4.20	350.3	7.80
2019-04-20	22:00	45.960	-2.124	999.0	19.0	53.0	9.3	4.20	350.3	7.80
2019-04-20	21:00	45.960	-2.124	1004.8	24.8	53.0	9.3	4.20	350.3	7.80
2019-04-20	20:00	45.960	-2.124	999.0	19.0	53.0	9.3	4.20	350.3	7.80
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2019-04-20	17:00	45.960	-2.124	1004.8	24.8	53.0	9.3	4.20	350.3	7.80
2019-04-20	16:00	45.960	-2.124	999.0	19.0	53.0	9.3	4.20	350.3	7.80

Cancel

Refresh

Export

example latest (whole hour) AWS measurements

[illegible]

example latest AWS measurements exported to a JSON file

- Code certificate renewed
  - Ensures software came from software publisher
  - Protects software from alteration after publication

KNMI, The Netherlands 10-July-2019