Observations Coordination Group (OCG)

Voluntary Observing Ships

- VOS -

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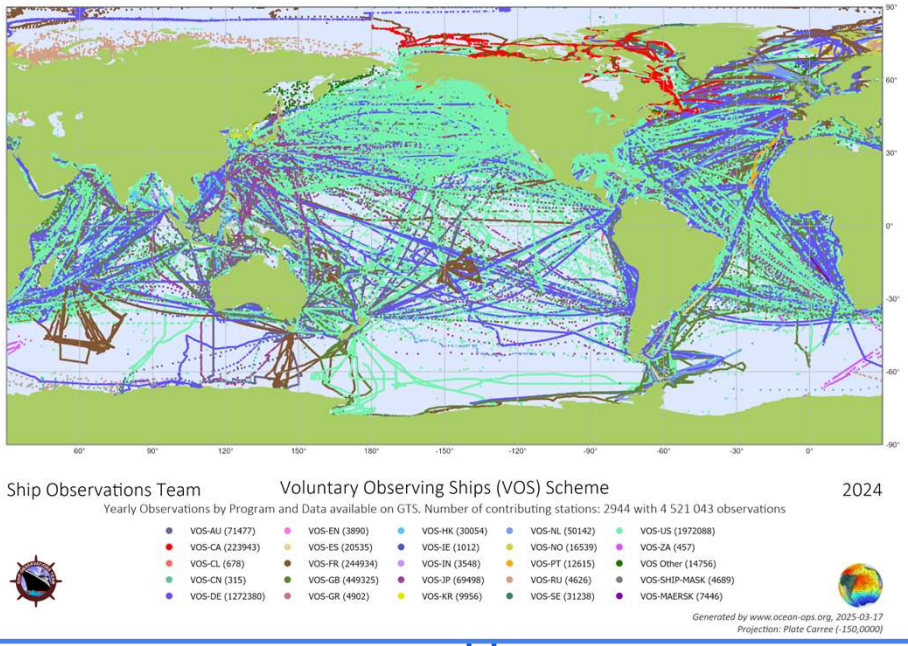
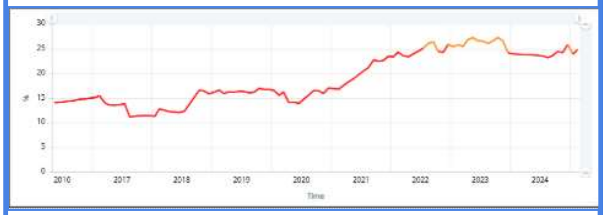
Bureau of Meteorology



VOS Network Status

- 2944 ships provided 4,521,043 real-time observations to the GTS in 2024.
- ~26% of the VOS fleet is now automated.
- 24 active national VOS programmes provided VOS real-time data in 2024.



- 76% of all VOS observations were provided in delayed-mode to the VOS GDACs in 2024 from 11 VOS programs.
- Approx. 375,000 per month from ~1700 vessels
- 68% of active ships reporting at least 20 observations per month
- 74 Port Meteorological Officers and Offices, providing service in 22 countries / territories, are listed in OceanOPS

PMO Buddy Program

Following on from the PMO workshop in Fiji we are seeing a promising collaboration under the PMO Buddy Program. PMO Fremantle, Aidan McMahon, is working with PMO Vanuatu, Ellen Luke, to help recruit the first VOS ship for Vanuatu (VU VOS).
The container ship, *Arkadia*, has agreed to participate in the VU VOS program and equipment is being tested in Vanuatu awaiting the vessel's next call to port in Vanuatu. The ship will be receiving a laptop provided by the Australian VOS program and a Vaisala PTB220 barometer provided by the Vanuatu VOS program.
We hope to see data on the GTS from the Vanuatu VOS program in March 2025.

PMO Vanuatu at the PMO-7 workshop (left) and on board the 1st VOS-VU ship, Arkadia (right)

IMO/WMO Symposium

SOT leadership members participated in the "2nd WMO-IMO Symposium on Extreme Maritime Weather: Bridging the Knowledge Gap Towards Safer Shipping", which was a great opportunity to build better collaboration between SOT and the IMO shipping industries. Although the values of SOT observations were shown, it became clear better connections between these two communities are highly desired. Follow on activities from this symposium include efforts to establish a pilot project with industry partners to significantly boost Independent class VOS participation with buy-in from industry.

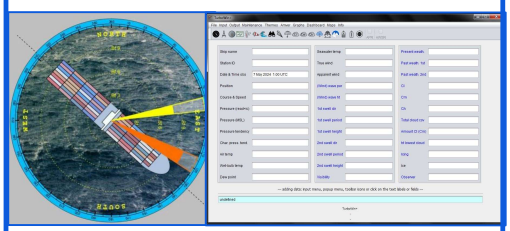
Next Generation Turbowin Software

Turbowin is an essential tool for collecting maritime observations. Approximately half of all VOS observations found on the GTS are produced using Turbowin. According to OceanOPS, 12countries had active Turbowin stations in 2024. 95% of manually observed visual parameters such as sea state, waves and clouds from VOS ships are collected using Turbowin.

KNMI has been developed and maintained Turbowin for nearly 20 years with support from EUMETNET/E-SurfMar. The current Turbowin software and funding model are no longer sustainable. KNMI will end the support for Turbowin late 2026.

Efforts are currently underway to identify a new funding model and commence development of a next generation software to replace Turbowin. Activities include the following:

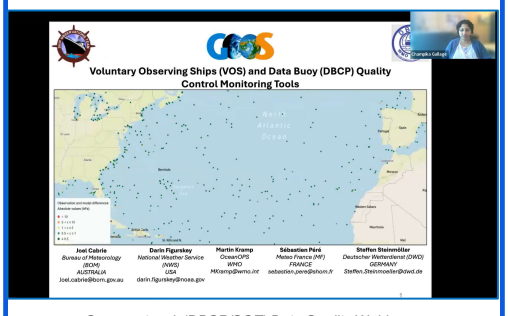
- several Turbowin partnerboard experts were involved in the Next Generation Turbowin Task Team. In particular, the partnerboard was tasked with writing the user requirements for the new software.
- Stantec are carrying out a market review, which will feed into the formulation of a new Turbowin strategy.



Turbowin main display and dashboard

Cross-Network SOT/DBCP Data Quality Webinar

This webinar wasa targeted at Port Meteorological Officers and Drifting Buoy operators. We discussed the importance of maintaining high quality data from our marine observing platforms, including ship-based platforms and buoys. Given that these platforms spend most, or all, of their time at sea, it is not always possible to check the physical condition of the equipment and undertake in-situ performance checks. For this reason, there are a number of tools available to buoy and VOS ship operators to help monitor the performance of their observing platforms remotely.
An overview of the available tools was provided, as well as a practical demonstration of each tool given by experienced operators. Tools include the Meteo France QC Tools, OceanOPS QC Relay and the WIGOS Data Quality Management System (WDQMS).



Cross-network (DBCP/SOT) Data Quality Webinar

The webinar saw 140 participants from 50 countries tuned in for a 90-minute webinar focused on monitoring the performance of VOS and DBCP platforms to ensure the highest quality data is being shared on the GTS to help improve the skill of NWP models and assist operational forecasters with good situational awareness in order to improve forecasts and warnings to improve safety of life at sea.