



DBCP NEWSLETTER

Data Buoy Cooperation Panel

March 2025, Volume 1 No 1



DBCP-40: CELEBRATING FOUR DECADES OF OCEAN OBSERVATIONS

The Fortieth session of the Data Buoy Cooperation Panel (DBCP) took place in Hyderabad, India, from October 22-25, 2024, celebrating 40 years of contributions to ocean observation and forecasting. Hosted by INCOIS, the event gathered around 150 global participants, both onsite and online.



Participants of the DBCP-40

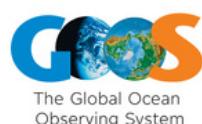
Since 1984, the DBCP has been vital for understanding weather and climate. This milestone session reflected on past successes, current challenges, and future priorities. Key discussions on the session focused on climate adaptation, early warning systems, and broader data access.

A key message from Dr. Nelly Florida Riamá emphasize on buoy data's role in climate resilience. A notable highlight by Dr. Albert Fischer, has called for sustaining and expanding buoy networks. Dr. Joana Post underlined the alignment of DBCP activities with global ocean initiatives, and Dr. David Legler advocated for stronger collaboration and data management. A preceding Science and Technology Workshop showcased innovations in buoy technology and its role in early warning systems.

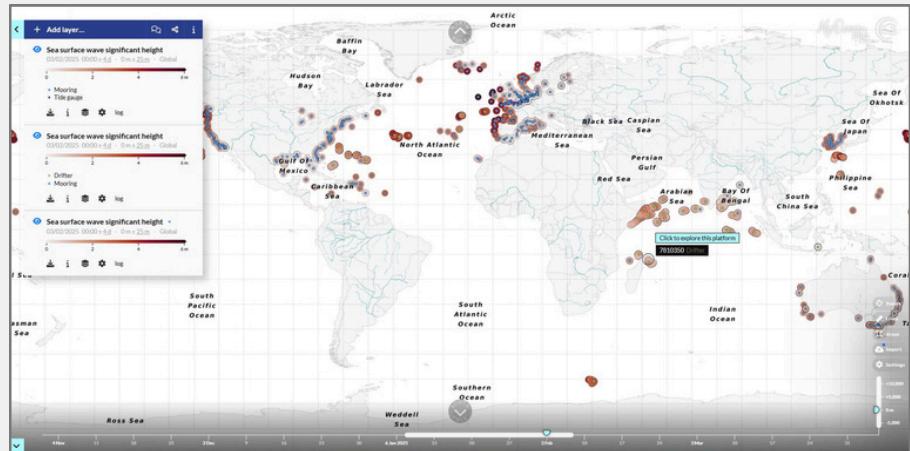
Looking ahead, the DBCP seeks to expand buoy networks in underrepresented areas and to explore the use of artificial intelligence to enhance data utilization. The Panel also aims to strengthen global and private sector partnerships and looking the way to close data gaps in vulnerable regions like the Small Islands Developing States (SIDS) and in the Exclusive Economic Zones (EEZs).

A special wave rider buoy, signed by delegates, was deployed off Kollam, symbolizing the global commitment to advancing ocean observation and climate resilience.

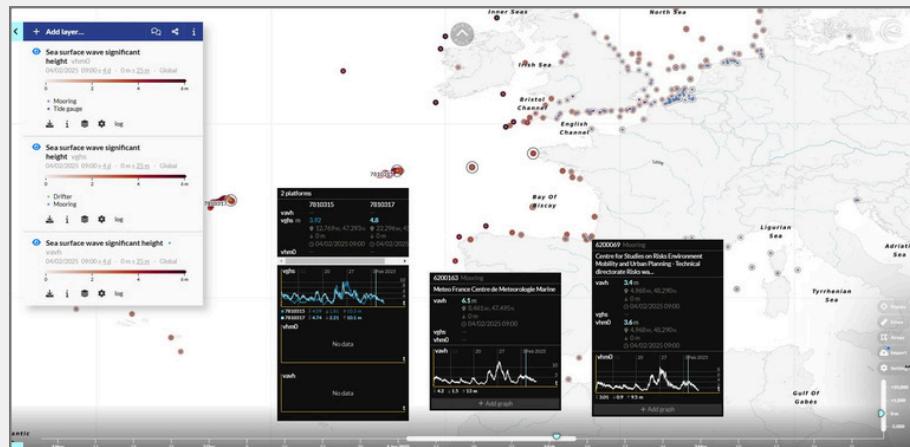
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BUILDING RESILIENCE THROUGH DATA: ADVANCING GLOBAL WAVE OBSERVATION FOR COASTAL SUSTAINABILITY AND OCEAN MANAGEMENT



GWDAC sources of data for wave buoys (Ifremer, January 2025)



GWDAC interactive wave data viewer (Ifremer, January 2025)

The establishment of a global wave observation database is becoming increasingly critical in addressing the challenges posed by climate change, coastal erosion, and the sustainable management of marine resources. Waves play a fundamental role in ocean dynamics, influencing weather patterns, marine biodiversity, and coastal stability. However, the absence of comprehensive, standardized, and real-time wave data hinders effective decision-making in key sectors such as maritime navigation, fisheries, and offshore energy.

A global wave observation database would centralize and integrate data from multiple sources, including buoys, drifters, high-frequency radar, and coastal monitoring stations, creating an invaluable resource for scientists, policymakers, and industry stakeholders worldwide. By fostering international collaboration and promoting data sharing, this initiative would enhance forecasting capabilities, improve risk assessments, and strengthen mitigation strategies.

Ultimately, it would bolster the resilience of coastal communities and ecosystems while advancing marine science.

- Candice Hall - Chair of the DBCP TT-WM; NOAA Atlantic Oceanographic and Meteorological Laboratory (AOML), National Oceanic and Atmospheric Administration (NOAA), USA. candice.hall@noaa.gov
- Ludovic Drouineau - GWDAC Lead; Coriolis Data Centre (Centre de Données Coriolis), French Research Institute for Exploitation of the Sea (Ifremer), France. ludovic.drouineau@ifremer.fr
- Thierry Carval - GWDAC co-lead; Coriolis Data Centre (Centre de Données Coriolis), French Research Institute for Exploitation of the Sea (Ifremer), France. thierry.carval@ifremer.fr
- Robert E. Jensen - co-lead of the DBCP TT-WM; U.S. Army Corps of Engineers, Engineer Research and Development Center (ERDC), USA. Robert.E.Jensen@erdc.dren.mil
- Val Swail – co-lead of the DBCP TT-WM; Emeritus, Environment and Climate Change Canada, Canada. swail@rogers.com

The Data Buoy Cooperation Panel (DBCP) Task Team on Wave Measurements (TT-WM) has strongly advocated for a standardized global wave observation database. The task team endorsed the Coriolis Data Centre (Centre de Données Coriolis), in collaboration with the French Research Institute for Exploitation of the Sea (Ifremer), as a central hub for global wave data integration.

In June 2024, the World Meteorological Organization (WMO) Executive Council approved this Coriolis – Ifremer joint initiative to establish a Global Wave Data Assembly Center (GWDAC), aligning with the DBCP Task Team's recommendations to standardize wave measurements and promote international collaboration.

In February 2025, Mr. Ludovic Drouineau provided an update on the GWDAC to the DBCP TT-WM and OceanOps. Currently, the GWDAC houses moored buoy wave data from several international agencies,

including the European National Network of Regional Coastal Monitoring Programmes (NNRCMP), U.S. NOAA National Data Buoy Center, Australian AODN, and Spanish Puertos del Estado (Figure 1). Additionally, wave drifter data from January 2025 has been ingested, and efforts are underway to automate the ingestion of Saildrone wave data.

Additionally, the GWDAC has ingested January 2025 wave drifter data available via the GTS BUFR template 315010. Efforts are also underway to automatically ingest Saildrone wave data using the BUFR template 315011. However, this process is currently performed manually via extraction from the U.S. NOAA PMEL ERDDAP server.

Copernicus Marine Service provides an interactive viewer called MyOceanPro (<https://data.marine.copernicus.eu/viewer/expert>) for accessing available wave data (Figure 2), with data downloads available through the Copernicus Toolbox (<https://help.marine.copernicus.eu/en/articles/7949409-copernicus-marine-toolbox-introduction>). Additionally, Copernicus Marine Service In Situ TAC offers a delayed-mode wave product, updated twice a year, containing quality-controlled wave data. For more information, refer to the All Copernicus Marine In Situ - Global Ocean Wave Observations Multi-Year Product: <https://doi.org/10.17882/70345>.

The next steps for the DBCP TT-WM and the international wave community include providing input on mandatory and optional wave metadata fields and identifying points of contact for historical or near-real-time spectral wave datasets. Without proper integration, historical data may be lost, but Copernicus In Situ (<https://insitu.copernicus.eu/>) has previously funded the recovery of such datasets (C-RAID Reprocessing of Argos and Iridium Drifter <https://doi.org/10.17882/77184>) and may support similar efforts in the future.

Phase II of the WGDAC initiative is set to begin in 2026–2027 and will focus on incorporating wave data from tide gauges and high-resolution wave measurements. This next phase aims to enhance the database by integrating additional data sources, further improving the comprehensiveness and precision of the wave observation system.

The development of the GWDAC represents a critical step in addressing global ocean challenges. By centralizing and standardizing wave data, the GWDAC will enhance decision-making, foster international cooperation, and improve scientific research. The continued efforts of the DBCP TT-WM, Coriolis, and Ifremer will ensure this initiative evolves to meet the growing needs of the scientific community and industries that rely on accurate ocean data, ultimately strengthening coastal ecosystems and communities.

MONITOR GLOBAL OBSERVING SYSTEMS WITH THE WMO WDQMS WEBTOOL



Quality of marine surface observations monitored by the WMO Data Quality Monitoring System (WDQMS). The variable is surface pressure, 6 hourly, collected by both DWD and ECMWF monitoring centre, at 25 February 2025

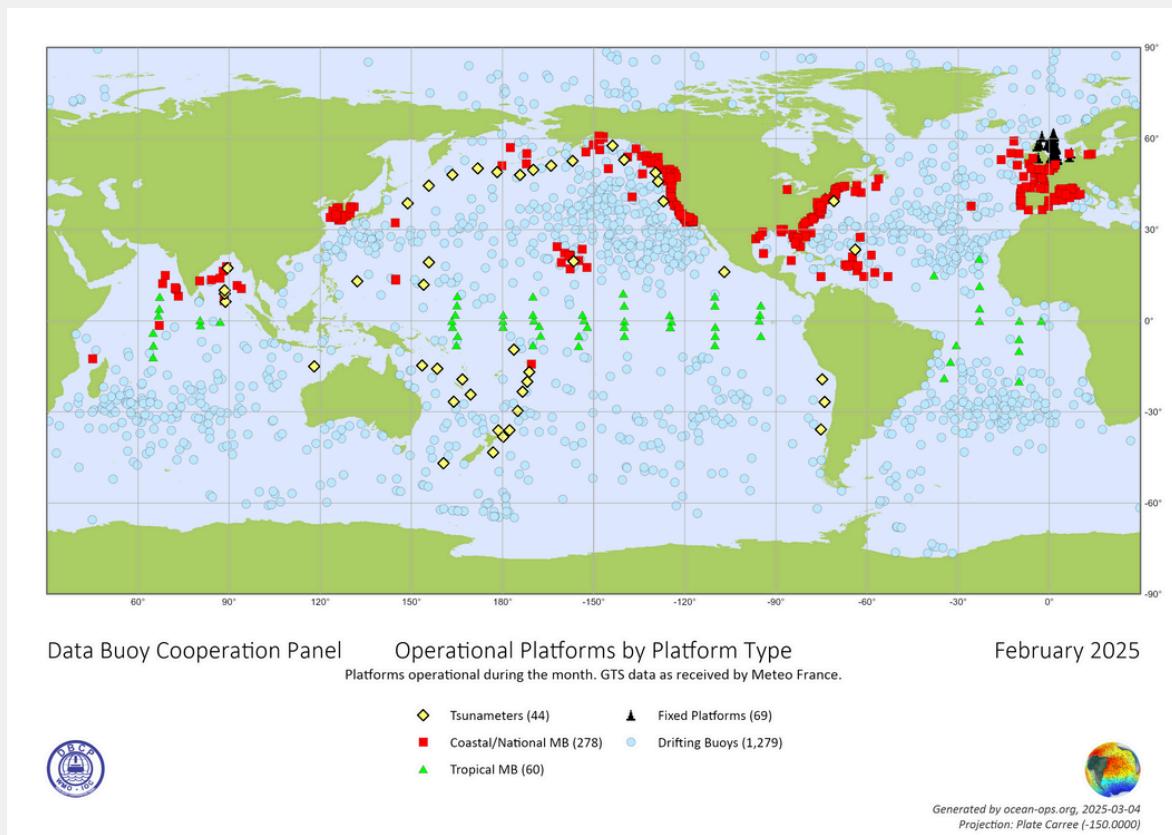
The **WIGOS Data Quality Monitoring System (WDQMS) webtool**, developed by the World Meteorological Organization (WMO), is now available to assist users monitor the performance of the WIGOS observing components.

This tool provides near real-time monitoring of marine surface observations from buoy and Voluntary Observing Ship (VOS) platforms. This user-friendly platform provides insights into the availability and quality of ocean observational data from two WMO Numerical Weather Prediction (NWP) centers: the [German Weather Service \(DWD\)](#) and the [European Centre for Medium-Range Weather Forecasts \(ECMWF\)](#). Users can explore various observation parameters and assess data quality, availability and timeliness, and ensure their marine observations meet the highest standards.

For detailed instructions on how to interpret the data and fully utilize the tool, a comprehensive User Guide is available under the Support menu of the webtool.

👉 Access the WDQMS Webtool [here](#).

LATEST NETWORK STATUS



For more detailed information, please visit the [OceanOPS dashboard](#)



UPCOMING EVENTS

- 18 Mar 2025 [GOOS OCG Webinar on monitoring the performance of VOS and DBCP platforms](#)
- 31 Mar – 4 Apr 2025 [13th Session of the Ship Observations Team \(SOT\)](#)
- 7 – 10 Apr 2025 [16th session of Observations Coordination Group \(OCG-16\)](#)
- 15 – 17 Jul 2025 [DBCP Training Workshop on Ocean Observations for Operational Services in the Indian Ocean](#)

CONTACT US

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