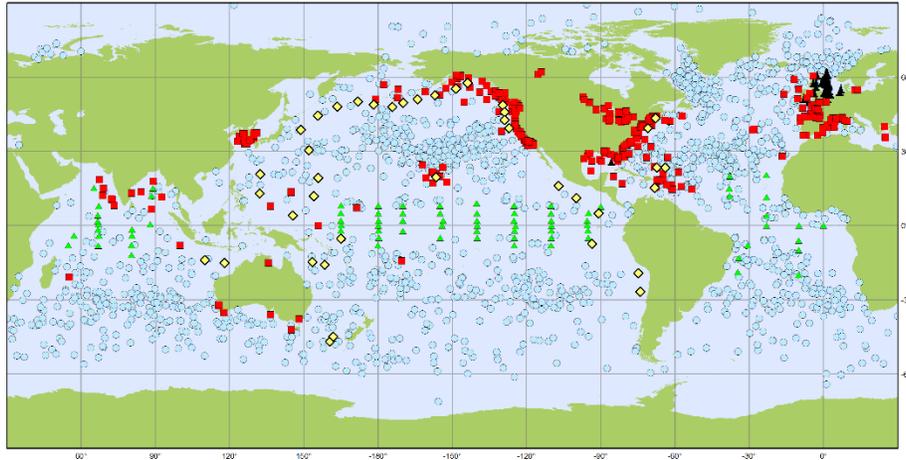


DBCP Newsletter 5 (Issue Sep 2020)

Highlights from the Technical Coordinator

Snapshot of Network Status August 2020



Data Buoy Cooperation Panel **Operational Platforms** **August 2020**

Platforms operational during the month. GTS data as received by Meteo France.

- ◆ Tsunameters (40)
- ▲ Tropical MB (80)
- Coastal/National MB (322)
- ▲ Fixed Platforms (94)
- Drifting Buoys (1 574)



Generated by www.jcommaps.org, 08/09/2020

Global Drifter Array (*:↑↓-- compared against last month)

	# Operational Units	Timeliness (<1hour to GTS)	Air Pressure	BUFR Migration	Sensor Metadata	Operating Countries
Arctic	111(↓5)	98% (↑)	56% (--)	100%	100%	3 (--)
Antarctic	66 (↓3)	99% (↑)	64% (↓)	100%	100%	4 (--)
Overall	1574(↓6)	97% (↑)	53%(↑)	100%	96%	8(↓)+EU

Moored Buoy Networks

	# Operational Units	Wave Measurements	BUFR Migration	Sensor Metadata	Operating Countries
Coastal/National Moored Buoys	322 (↑1)	91% (↑)	66%	100% (↑)	14
Tsunami Buoys	40(↑4)	NA	0	100%	4
Tropical Moored	80 (NDBC)	NA	100%	100%	3

DBCP in Action

1. Development of the new DBCP Strategy

Dr. Boris Kelly-Gerreyn, DBCP chairperson, has been leading the development a new strategy for the Panel, to align with the high level strategies of the WMO, IOC, GOOS 2030, Sustainable Development Goals, and the UN Ocean Decade for Sustainable Development. The strategy development is benefiting from broad consultation from the Panel as well as from the WMO,IOC, GOOS, OCG and the key user community (ECMWF, OceanPredict and EUMETSAT). The feedback so far has been both supportive and incredibly useful. Boris will present the latest version of the strategy at [DBCP-36](#) (5-9 October 2020).

2. Highlights of DBCP groups (Aug 2019~July 2020)

The big news of the year of course has been COVID-19. The Technical Coordinator has, along with the rest of the OceanOPS team, been closely [monitoring the impact](#) of Covid-19 on drifting and moored buoys, and found only minor impacts to data availability. This low impact is largely due to the proactive mitigation and adaptation measures from leading buoy operators, for which the DBCP is most thankful! However, key operators are recommended to continue monitoring the impact of the pandemic on ship time and deployment opportunities.

BUFR migration has been a success story this year. Drifting buoys have fully migrated to BUFR format 315009 while the number of moored buoys compliant with BUFR format 315008 has more than doubled to account for more than 2/3 of operational units monitored by OceanOPS. Template 315011 has been approved and validated for Autonomous Surface Vehicles (ASVs) and will soon be operational.

More than 90% of the metadata of operational drifting and moored buoys has also been successfully integrated with the metadata management tool of the WMO Integrated Global Observing System (OSCAR/WIGOS).

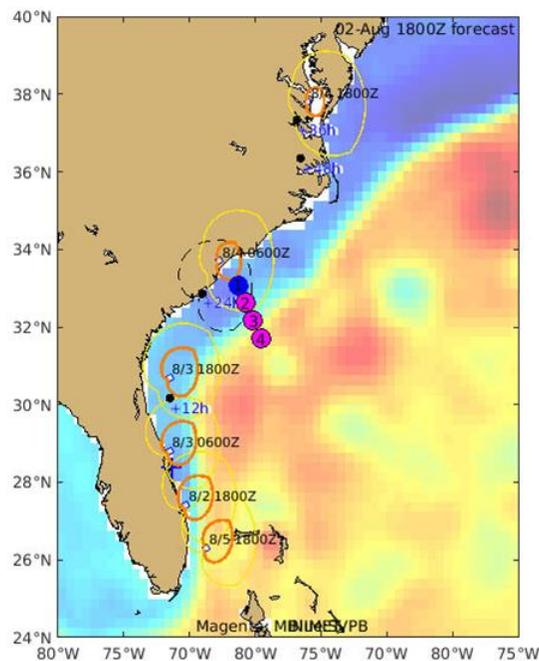
Due to Covid-19, several events prepared by DBCP community have been postponed to 2021. These include the planned wave measurement workshop, the fifth training workshop for Pacific Islands, and the high-resolution sea surface temperature drifter workshop.

3. Data Impact Story: Drifter data captured at Hurricane Isias

On August 3, 2020, an Air Force C-130J of the United States Air Force 53rd Reconnaissance Squadron "Hurricane Hunters" deployed a picket line of eight drifters ahead of Hurricane Isaias off the South Carolina coast (Figure 1). The deployments were coordinated by Dr. Rick Lumpkin of NOAA/AOML, working with the NOAA/National Hurricane Center/Chief, Aerial Reconnaissance Coordination, All Hurricanes (CARCAH) unit and Dr. Luca Centurioni of the Scripps Institution of

Oceanography's Lagrangian Drifter Laboratory (LDL). The drifters designed and built at LDL and funded by NOAA's Global Ocean Monitoring and Observing Program (GOMO), measured Sea Level barometric pressure (SLP), sea surface temperature (SST), ocean currents, wind speed and direction, and directional wave spectra. Isaias' eye passed the drifters at about 00 UTC on August 4. The drifters showed maximum waves arriving 3 hours before the passage of the eye, the transition of swell-dominated seas to wind-dominated seas with rapid directional shift, and the persistence of strong winds for 6 hours as the storm passed. A maximum wave height of 6m was recorded. The NOAA drifters also measured a drop in sea surface temperature of $>1^{\circ}\text{C}$ before the arrival of the eye, and the cold wake that remained after its passage. Drifters observing co-located in-situ wave and wind measurements under the tropical cyclone offer a unique observational data set. These measurements will provide valuable insights into the air-wave-ocean boundary layers' coupling mechanisms in strong storms and will provide hurricane scientists with data to evaluate their forecasts of this atypical hurricane. Please contact [Rick Lumpkin](#) and [Luca Centurioni](#).

Figure 1: Location of four drifter pairs deployed ahead of Hurricane Isaias off the South Carolina coast, superimposed on ocean dynamic height (colors), with forecast locations of the storm as of the 02 August 1800 UTC forecast.



4. DBCP-36

DBCP-36 session will take place as a virtual meeting 5-8 October with 2.5-3.0 hours each day starting from 12:00PM UTC ([your time](#)). For the time being, there

have been more than 120 confirmed participants. As usual, there will be a Science and Technology [Workshop](#), to be held on 5th October.

The session will start with keynote speeches from senior managers of WMO and IOC on ocean observations, followed with invited talks on data impacts to the user communities. Similar to DBCP-35, there will be 3 [breakout sessions](#) highly relevant to the future of the DBCP, with regard to ***UN Ocean Decade, Impacts of the WMO Reform to the DBCP, and Environmental Stewardship***. You are warmly invited to provide your thoughts and comments on these three sessions ahead of the DBCP36 (see [questionnaires](#) here).

Dial in details on the daily basis have been circulated to you by WMO Secretariat, please stay tuned at the event page, and please contact Champika Gallage at WMO Secretariat (cgallage@wmo.int) if necessary.

5. New Developments of JCOMMOPS

- 1) With the formalization of JCOMMOPS as a WMO office based in Brest, France, the Ocean Observations Group, JCOMMOPS team and experts have developed a [five year strategy plan](#) (2020-2025);
- 2) A new issue of [ocean observations report card](#) has also been developed to update status of JCOMMOPS coordinated networks, and potential impacts in the context of Covid-19;
- 3) With disbandment of JCOMM, JCOMMOPS will have a new name OceanOPS. IT migration is still underway. More details of JCOMMOPS/OceanOPS, please contact [Mathieu Belbeoch](#).

6. OceanSITES 2020 virtual meeting in brief

Dr Johannes Karstensen (GEOMAR, Germany) and Dr Tom Trull (CSIRO, Australia) chaired a successful [OceanSITES 2020 virtual meeting](#) from 14th to 18th September, with more than 150 participants from global ocean community.

To investigate how to better design and implement fit-for-purpose OceanSITES network, the meeting covered ocean observing in 2030 in general, and thematic topics on air-sea fluxes, ocean transport arrays, deep ocean observing, data and metadata management, etc. Synergies with other ocean observations (incl. DBCP) and modeling communities were specifically considered in the meeting. Details and pre-recorded presentations can be found at the event page and contact projectoffice@oceansites.org.

*Contributions, comments, and technical inquiries are welcome.
Please kindly address to DBCP Technical Coordinator [Long Jiang](#).*