

# UK BGC-Argo Update



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AST24  
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# UK BGC-Argo: *Recent and planned deployments*

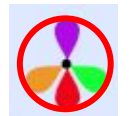
Model	Sensors	← Actual		Planned →		Total
		2022	2023	2023	2024-5	
NKE CTS-4	6 (+CDOM)	4	5	4	12	25
NKE CTS-5	5 (+CDOM)		1(1)		1	2
NAVIS	4 (+CDOM)	2 (1)		1		3
<b>Total</b>		<b>6 (1)</b>	<b>6 (1)</b>	<b>5</b>	<b>13</b>	<b>30</b>

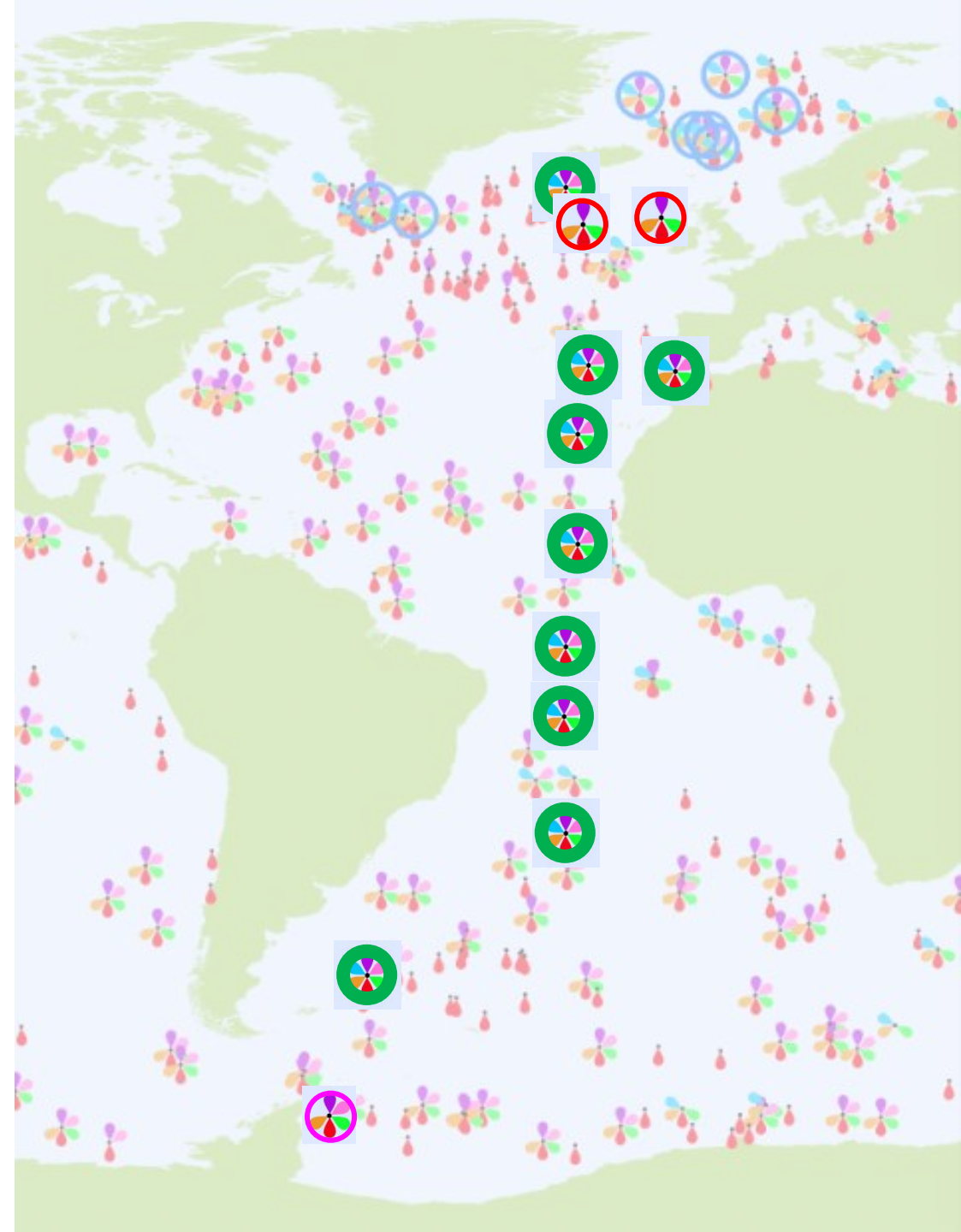
Failed  
deployments  
(recovered)

# UK BGC-Argo: *Recent deployment locations*

 6 Sensor (+CDOM): **9 floats** (25% globally)

 5 Sensor (+CDOM): **1 float**

 4 Sensor (+CDOM): **2 floats**



# UK BGC-Argo: 2023 *Planned* deployments

**Atlantic deployment plans?** Please contact

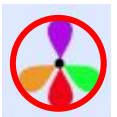
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6 Sensor (+CDOM): 4 **floats**



4 Sensor (+CDOM): 1 **float**



# UK BGC-Argo: *Status of data management at BODC DAC*

Significant progress from last year – majority of active floats now on GDAC

## Real-time data processing – Active floats

- 11 Active Provor floats processing BGC data (2 Irish + 9 UK)
- 6 Active BGC Navis floats processing core data only
- 3 Active floats not processing to GDAC (2 Navis, 1 PROVOR CTS-5)

Plan to address this month



## Real-time data processing – Non-active floats

- 13 Provor floats with processed BGC data (processed by Coriolis)
- 35 Apex and Navis floats processing core data only
- 0 floats with no data

# UK BGC-Argo: *Status of data management at BODC DAC*

Big step since last year. Trained and started BGC DMQC

## DMQC

- Jan 2023: BODC staff trained in BGC Argo DMQC at workshop in Villefranche-sur-mer
- Jan-Mar 2023: BODC commenced BGC Argo DMQC, starting with DOXY on inactive floats
- Current status: DOXY DMQC completed for 13 floats. 4,505 profiles now on GDAC. Also helped with DMQC of Poland BGC Argo fleet.

# Recent UK-led BGC-Argo publications

## 2022

Brewin, RJW; Dall'Olmo, G; Gittings, J; Sun, XR; Lange, PK; Raitsos, DE; Bouman, HA; Hoteit, I; Aiken, J; Sathyendranath, S. A. Conceptual Approach to Partitioning a Vertical Profile of Phytoplankton Biomass Into Contributions From Two Communities. *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*, 127, 4, doi:10.1029/2021JC018195

- ➔ Castro, BF; Mazloff, M; Williams, RG; Garabato, CAN. Subtropical Contribution to Sub-Antarctic Mode Waters. *GEOPHYSICAL RESEARCH LETTERS*, 49, 11, doi:10.1029/2021GL097560
- ➔ Mackay, N; Watson, AJ; Suntharalingam, P; Chen, ZH; Landschutzer, P. Improved winter data coverage of the Southern Ocean CO<sub>2</sub> sink from extrapolation of summertime observations. *COMMUNICATIONS EARTH & ENVIRONMENT*, 3, 1, doi:10.1038/s43247-022-00592-6
- ➔ Wu, YX; Bakker, DCE; Achterberg, EP; Silva, AN; Pickup, DD; Li, X; Hartman, S; Stappard, D; Qi, D; Tyrrell, T. Integrated analysis of carbon dioxide and oxygen concentrations as a quality control of ocean float data. *COMMUNICATIONS EARTH & ENVIRONMENT*, 3, 1, doi:10.1038/s43247-022-00421-w
- ➔ Wu, YX; Qi, D. Inconsistency between ship- and Argo float-based pCO<sub>2</sub> at the intense upwelling region of the Drake Passage, Southern Ocean. *FRONTIERS IN MARINE SCIENCE*, 9, doi:10.3389/fmars.2022.1002398.

## 2021

- ➔ Hendry, KR; Briggs, N; Henson, S; Opher, J; Brearley, JA; Meredith, MP; Leng, MJ; Meire, L. Tracing Glacial Meltwater From the Greenland Ice Sheet to the Ocean Using Gliders. *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*, 126, 8, doi:10.1029/2021JC017274