

Barrow Strait Ocean Observation Program – Plan for 2024

Submitted by Clark Richards
Fisheries and Oceans Canada
Bedford Institute of Oceanography
E-mail: Clark.Richards@dfo-mpo.gc.ca

Location: Eastern Barrow Strait

Platform: Canadian Coast Guard Icebreaker

Field Dates: August 2024

Team members: Clark Richards, Shannon Nudds, Matthew Lawson, Mike Vining,
Doug Schillinger, Lina Rotermund

Under license **02 039 22R-M**, the Barrow Strait Real Time Ocean Observatory and the Barrow Strait Monitoring Array were deployed in August 2022 with a planned recovery in August 2024. One of those moorings was designed for a 1-year deployment so under license **02 044 23R-M** we recovered that mooring in August 2023. This summer, August 2024, our primary goal is to recover and re-deploy the remaining moorings.

The full program has 3 components:

- 1. The Barrow Strait moored monitoring array** collects year round measurements of currents, water properties, ice and biological parameters across the eastern end of Barrow Strait (approx. 91 W). Maintaining the array over many years allows us to look at impacts of climate change. This array was in place from 1998 to 2011 and re-deployed in August 2017. In August of 2022, we deployed 6 moorings as part of the monitoring array, and we plan to recover and re-deploy these moorings this summer.
- 2. The Barrow Strait Real Time Observatory (BSRTO)** provides timely ice and ocean data through a cabled system on the south coast of Devon Island at Gascoyne Inlet. These data are being used for sea-ice forecasts and to improve climate model predictions. The instruments (3 moorings total) were deployed in August 2022. This year, we plan to recover all three moorings and re-deploy one of them. We also plan to go ashore to perform general maintenance of the BSRTO shore station, located at DRDC's camp in Gascoyne Inlet.
- 3. Over-the-side ship-based water sampling and CTD measurements** at 17 station along the mooring line in eastern Barrow Strait.

See the map on the next page for work locations.

