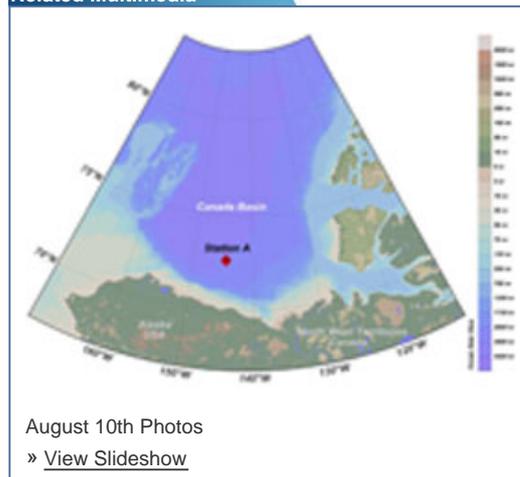


Beaufort Gyre Exploration Project: Dispatch 9: It's Been a Long Time Series...

Kristina Brown
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The 2013 Joint Ocean Ice Study (JOIS) expedition will visit over 60 stations in 4 weeks to collect hydrographic and chemistry data throughout the Canada Basin, from the shallow Beaufort Shelf and Northwind Ridge into the deep basin interior. Sea ice and water column observations (such as temperature and salinity) collected during this year's program will be combined with data collected throughout the Canada Basin since 2002, creating a long-term time series picture of the state of the Arctic Ocean. This massive undertaking has been built gradually from the humble beginnings of Polar expeditions during the late 80's and early 90's. Today we collected seawater samples from Station A (72.8N, 144.6W), the longest running time series station in our cruise track. Samples of water column chemistry have been collected at this station since 1989, creating a remarkable time series with which to compare the JOIS program data from 2002 - 2013. Chief Scientist Bill Williams has spent the last 10 years studying the rapid changes in the sea ice and water column of the Arctic Ocean. He explains that without a long term time series to provide a baseline we would not understand the magnitude of the dramatic changes seen in the past decade.

Related Multimedia



Another of the long term operations carried out today was the Drift Bottle Toss. Inspired by the pathways formed as currents move between Canada's three oceans (the Atlantic, Pacific, and Arctic) scientist Eddy Carmack (Fisheries and Oceans Canada) launched 2000 "Drift Bottle Messengers" during an Arctic transect between Halifax, N.S., and Sidney, B.C., in a salute to the turn of the millennium. This program has continued from various Arctic voyages and aboard the CCGS Louis S. St-Laurent as part of the JOIS program since 2004. The drift bottle program is now a partnership between the Fisheries and Oceans Canada and high school students in Halifax and Sidney. Several elementary schools in both cities have also contributed messages to include in the bottles in recent years. With an air of celebration, 24 drift bottles were released this afternoon off the ship's starboard sampling deck. Drift bottles from this program have followed Arctic Ocean currents to arrive in various locations around Northern Europe. Transit times have been determined to be about 5 to 6 years depending on sea ice conditions and where exactly they end up reaching shore. Upon finding a drift bottle, the lucky recipient can contact Fisheries and Oceans Canada to have their discovery added to the drift bottle data set, helping to build a clearer picture of the trajectory of Arctic Ocean surface currents.

Final Day of the Beaufort Gyre Newbie Games!

Last evening also marked an end to the Beaufort Gyre Newbie Games. All newbies were called to the ship's aft lounge, where they were blindfolded and escorted around the ship to King Neptune. One-by-one each Beaufort Gyre newbie was to given their final challenges before King Neptune and his wife. The challenges culminated with a surprise Arctic bath on the ship's helicopter deck. The Captain himself congratulated each newbie on completing their challenges and officially crossing into the Beaufort Gyre. The evening followed with a meet-and-greet in the ship's lounge as well as certificates confirming a successful crossing.

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Mail: Woods Hole Oceanographic Institution, 266 Woods Hole Road, Woods Hole, MA 02543, USA.

E-Contact: info@whoi.edu; press relations: media@whoi.edu, tel. (508) 457-2000

Problems or questions about the site, please contact webdev@whoi.edu