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Beaufort Gyre Exploration Project: Dispatch 15: Gniroom a Gnirevocer

Gerty Ward
July 31, 2008

We awoke to snow!

Brian Hunt and Rick Nelson (left) admire Will Burt's 4AM snow creation on the flight deck. Photo by Edmand Fok.

Captain McNeill has to break significant ice to clear the spot for mooring recovery.

The WHOI team is recovering a mooring today. After yesterday's helicopter preview, Captain McNeill knew to expect some ice. To prepare the mooring site, he methodically and skillfully navigated the ship around the mooring site, breaking up and scattering ice.

The wind and currents were not cooperating, however, and he had to use both the ship and the bubbler to create a pond large enough to begin recovery. On the Captain's command, Rick sent the acoustic signal to the release mechanism to let go.

The first mechanism did not respond, so a signal was sent to the second one (ALWAYS have a back-up!). The second one did respond and let go, but, by this time, wind and currents had pushed ice back into the recovery area. The top float did not emerge....it was a long 30 minutes before we saw the glass balls, the back-up buoyancy, surface (ALWAYS have a back-up!). Moorings are usually recovered from the top float first. Since the top float was somewhere out there under the ice, the WHOI team began recovery from the bottom, the glass balls (see July 27 Dispatch for a mooring diagram).

Rick sends an acoustic signal to the release mechanism 3800 meters below. While the first mechanism did not respond, the back-up performed beautifully.

The glass balls surface in ice, requiring exceptional ship control to hook.

Everything came aboard upside down.

Recovering the mooring backwards means that the glass balls come in first, generally in a big clump. This clump must be brought aboard very carefully.

Recovering from the tail end means everything comes in upside down. Fortunately, the trap samples are safely sealed.

Bringing aboard the MMP, the alien-looking device with all the data collected over the past year, was especially tricky, requiring exceptional ship control. Finally, the top float popped through the ice and was brought aboard. It was, of course, upside down so it had to be rotated.

The MMP is a vital part of the mooring system and was the most difficult to bring aboard. Here it surfaces in ice so it cannot be safely brought towards the ship. After considerable maneuvering, it comes aboard.

Turing around a 2500-pound sphere hanging out over Arctic waters is a nifty trick.

In my classroom, I quote often that "chance favors the prepared notebook" which is a modification of Louis Pasteur's quote, "chance favors the prepared mind." Collecting data using sophisticated engineering, equipment and ship control requires preparation. The Arctic adds the "chance!" P.S. Gniroom a Gnirevocer is "Recover a mooring" spelled backwards.

All photos by PolarTREC teacher Gerty Ward unless indicated.

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