

RUSALCA 05 Mooring Recovery Narrative

D. Leech, 22 August 2005

About 02:00, 20 August 2005 GMT, Released Mooring A1U

Ship handling during approach and recovery of the mooring components was delightfully smooth. All was aboard within minutes of the release command being sent.

Almost no biofouling other than thin slime and one small barnacle

Records indicate Deployment started before 12:05, 17 August 2004 by RCM9 records

Aanderaa RCM9 with Temp. Cond. And Turbidity recorded data continuous until 13 August when Battery and / or memory were exhausted. I do not have the software to apply the Calibration Coefficients to do any preliminary processing.

Seabird SeaCat SBE16+ with pressure and a WetLabs AFL Fluorometer equipped with Bio Wiper recorded every hour with plenty of battery and memory to spare. The preliminary graphs show very interesting things happening over the past year.

Aside from the Aanderaa not having sufficient Battery or memory, the only other problems were: 1.) the anode on the cage for the SBE16+ was completely exhausted 2.) the copper foil around the WetLabs Fluorometer was almost gone.

- Lithium Battery and larger DSU for the Aanderaa RCM9 this year.

- A larger anode was affixed to the SBE16+ cage (a big one from the spare Release). No other anode was gone.

- The foil depletion was disregarded because of the lack of bio growth. The WetLabs "bio wiper" could handle it nicely.

Because of the way that the "rules" were written, we were unable to use the Wetlabs AFL fluorometer that came on the replacement SBE16+ so we just re used the one from the recovered SBE16+ .

The first mooring to be deployed, to be called A1-1, consisted of an RDI 300kHz Workhorse in Flotation Technologies 32 inch Workhorse syntactic buoy and a SBE37 on a vane below. No additional floatation above the trusty EdgeTech 8242XS Release and three meters of chain to a swivel and the double train wheel anchor. CTD casts show complete mixing so we lost nothing getting the ADCP as close to the bottom as possible.

The second mooring, called A1-2, consisted of a new 36 inch Flo-Tech buoy, ISUS optical Nitrate meter, SBE16+ and the RCM9 – five Vinny floats and 8242XS – all as high as we dared with winter ice conditions above another swivel and the double train wheel anchor (1600 lbs.)

The third and last mooring, designated A1-3, started with a 32 inch Flo-Tech Syntactic above the AARI orthogonal current meter with CTD. Then came an RCM7 attached with a Vinny float to MicroCat with Pressure and four more Vinny floats above a swivel and the 8242XS release and double train wheel anchor. Again, all instruments were crowded as high as we dared.

Deployment was as smooth as the recovery and I let the eager deck crew take over the third deployment, even relinquishing the anchor drop line that had a "hair trigger".