

CRUISE REPORT Cruise Number: MF-04-05 Leg 2 FOCI Number: 3MF04 Ship: NOAA Ship <i>Miller Freeman</i>
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Area of Operations: Gulf of Alaska, Shelikof Strait

Itinerary: Depart Ketchikan AK, 15 May, 2004
Arrive Kodiak AK, 21 May, 2004

Participating Organizations:

NOAA/PMEL/FOCI

Chief Scientist: William Floering, NOAA/PMEL/FOCI

Objectives of Cruise:

To deploy Argos drifters in the Kayak Island area and near the center of a developed eddy south of Kodiak Island. To locate, recover and deploy mooring SSP-2 in Shelliiof Strait.

Summary of Operations:

CTD casts	1
Subsurface Mooring Recovered	1
Subsurface Mooring Deployed	1
Argos Drifters deployed	4

Summary of Cruise:

Prior to this cruise, NOAA Ship *Miller Freeman* deviated from her scheduled activities to undergo center board repairs at Alaska Ship and Dry dock in Ketchikan, Alaska. Because repairs were completed 2-3 days ahead of schedule, PMEL was given the opportunity to make use of this additional ship time before the start of MF04-06. Following a partial calibration of the newly installed centerboard transducers, NOAA Ship *Miller Freeman* left Ketchikan at 2330 hours, on 15 May, 2004. The ship steamed north to a location southwest of Kayak Island. Two Argos tracked drifting buoys were deployed in 100 to 120 meters of water. From there the vessel steamed west to locate an eddy south of Kodiak Island. Based on satellite data, two Argos tracked drifting buoys were deployed near the center of this eddy. These buoys were deployed to provide additional eddy circulation data for subsequent sampling by the research vessel R/V *Alpha Helix*.

Following the eddy drifter deployments, the ship steamed around the west end of Kodiak Island and northeast up Shelikof Strait to the PMEL historical sampling line number 8. The acoustic release on mooring 03-SSP-2B did not respond and was not recovered as scheduled during cruise MF04-04. We steamed to the 03-SSP-2B deployment location and

again tried to communicate with the Benthos acoustic release. With no results and limited daylight left, the assumption was made that the mooring was there, but the release had failed. We tried without success to circle the mooring using 7/16th inch wire and drag gear. It was dark and after midnight when the first dragging operation was complete. Since the release could not be heard acoustically, the ship was instructed to lay out a grid and make passes over the mooring site trying to locate the floats with the ships echo sounder. The transect lines were approximately 50 meters apart and formed a 1.5 nm square, with the mooring deployment position in the center of the box. It took 6 hours or so to complete this search, in the end no targets were observed on the echo sounder.

The ship then steamed north 1.5 nm where we tried again to enable and range on the release. This time repeated ranges were received in the neighborhood of 4000 meters away. We moved and ranged several times triangulating in on the location. The mooring had moved approximately 4 miles from the original deployment location. Upon recovery, there were scraps on the acoustic release body but no other apparent damage to the mooring. One assumption is a fishing vessel snagged the mooring and moved it off station. Mooring 03-SSP-2B was recovered, and mooring 04-SSP-2A was deployed at the original location, and a CTD cast was completed following the deployment. NOAA Ship *Miller Freeman* steamed for the U.S. Coast Guard Base, Kodiak, AK, arriving at 0900 May 21, 2004.

The recovered equipment was left in Kodiak to be combined with additional equipment scheduled to be shipped to Seattle 10 July.

Specifics of operations:

Event	Date (GMT)	Time(GMT)	Lat. N	Long. W	Depth M
Depart Ketchikan AK	16 May	0730	55 20.9	131 39.9	
Deploy Drifter 43724	18 May	0915	59 32.89	145 09.76	116
Deploy Drifter 43723	18 May	0932	59 32.78	145 13.68	116
Deploy Drifter 43701	19 May	1150	55 36.0	151 42.0	2500
Deploy Drifter 43702	19 May	1250	55 36.0	151 48.0	2500
Mooring Recovered 03-SSP-2B	20 May	1621	57 40.71	155 04.69	256
Mooring Deployed 04-SSP-2A	20 May	1727	57 37.06	155 04.49	242
CTD001	20 May	1744	57 37.05	155 04.41	242
Arrive Kodiak AK	21 May	1700	57 43.8	152 31.0	

Attachments:

