

CRUISE REPORT

MF-06-02

FOCI Number: None
Ship: Miller Freeman

Area of Operation: Shelikof Strait and Northern Gulf of Alaska

Itinerary: 22 Feb. 2006 Depart Kodiak Alaska
4 March 2006 Arrive Dutch Harbor Alaska

Participating Organizations:
NOAA/PMEL/FOCI

Chief Scientist: William Floering (PMEL/AFSC)

Participating Scientists:
Carol Dewitt (PMEL)

Cruise Objectives:

Fisheries-Oceanography Coordinated Investigations (FOCI) is an effort by NOAA and associated academic scientists. FOCI's goal is to understand the effects of the abiotic and biotic variability on ecosystems of the North Pacific Ocean and Bering Sea. Increased understanding of these properties enables us to discern the physical and biological processes that determine recruitment variability of commercially valuable finfish and shellfish stock in Alaska waters.

Summery of Cruise:

A portion of the scientific equipment for this cruise was ferried to Kodiak by the Miller Freeman. This equipment was unloaded from the vessel to make room for the preceding cruise activities. A 20 foot container with the remainder of the equipment for cruise MF-06-02 was shipped to Kodiak. All equipment was loaded aboard the vessel during their overnight import in Kodiak, Alaska.

The Miller Freeman departed the U.S. Coast Guard Base, Kodiak Alaska, at 1300 hours on February, 2006. The first stop was Chiniak Bay, about 2 hours out of Kodiak. A pre-mooring recovery CTD was completed, the

mooring was recovered and re-deployed at the same location. A post deployment CTD concluded the scientific activities at this station. The vessel steamed along the south side of Kodiak Island to the historic FOCI sampling area Line 8.

Following a CTD cast mooring 05-SSP-3A was recovered and redeployed with no problems. Corrosion was noted on the collar that secures the 75 Khz ADCP to the syntactic foam float. According to the vendor this may be caused by the rubber strip between the collar and the ADCP. A new type of rubber is now recommended by the vendor, Floation Technologies. We steamed to mooring site 05-SSP-2A.

05-SSP-2A appeared to be awake but the returning ranges were all over the map, ranging anywhere from 30 meters to 9800 meters. Using low deck unit power an attempt was made to fire the Benthos release. No response to the release command was observed. We started a small search pattern to locate this mooring. We traveled south 4 miles and did get a few repeating ranges. We traveled east 1.5 miles, back up north, east another 1.5 miles and back south again. We broke off the search, deployed mooring 06-SSP-2A and steamed to 05-SSP-1A hoping to recover this mooring before dark. At site SSP-1A we again encountered difficulties recovering the mooring. There were no signals from the release on this mooring. 06-SSP-1A was deployed one quarter mile from the 05-SSP-1A mooring site and a search was started for the missing 05 mooring. When we ran out of daylight we broke off the mooring search and completed the historic FOCI CTD line of 6 stations across the strait.

Around midnight Friday we were back to searching for mooring 05-SSP-2A. Enabling and ranging on the mooring on a search grid south of the original drop site put us on the mooring with good solid ranges around 9am Saturday morning. The mooring was now some 15 miles south west of where it was deployed. At first light the mooring was recovered. There was damage to the release swing arm that holds the release link in place. The swing arm fell off when the mooring was brought on board. The ADCP had slid in the attachment collars to where the heads were resting against the frame. There was no other apparent damage and the ADCP data was good.

We traveled across the strait to a location south of the original deployment site for mooring 05-SSP-1A. After a few hours of searching the mooring was located approximately 9 miles south of the original deployment

location. We have excellent ranges on this mooring and are very confident we know the current location but the Benthos release would not fire so we could not recover this mooring. We will try dragging for this mooring on our next Freeman cruise in April.

From Shelikof we headed west to the un-recovered deep water mooring GSP-9. Prior to beginning our search for this mooring we completed a line of CTD casts across the Alaska Stream.

For review, 2 years ago the Benthos release on GSP-9 failed and we were unable to recover the mooring. Last fall I asked the NOAA Ship Oscar Dyson to do an acoustic search for this mooring during one of their fisheries cruises. They located a promising target with the Simrad 38 khz sounder. Our plan during this cruise was to complete an acoustic search for the mooring and to drag a trawl net through the target to recover the mooring. 24 hours of acoustic searching turned up several possible targets. We deployed a trawl net with the 110 khz Westmar headrope unit and towed over the possible target sites to verify the target sighting. The Westmar search turned up nothing, none of the potential sightings could be verified or reproduced. There is still reason to think this mooring is intact and in the area but some additional locating acoustics are needed to verify it's position. The next attempt will probably be with the Oscar Dyson multibeam system when that system is up and running and the vessel is available for an acoustic survey of the area.

The weather was starting to deteriorate so we left GSP-9 and steamed west to Amukta Pass. A line of 5 CTD casts was completed across the pass and the 4 Amukta Pass 75 Khz ADCP moorings were recovered. These moorings will be redeployed during the April Miller Freeman FOCI cruise.

The ship steamed east to Dutch Harbor arriving a day early. In earlier discussions with NMFS/MACE they indicated that due to the ship's 1 week delay in leaving Seattle they could use an extra day for their next Pollock survey if the time was available. MACE personnel flew up a day early to take advantage of our coming in one day early.

Finding pier space in Dutch Harbor continues to be a problem. Since the Federal Government does not make a practice of paying for pier space we are at the end of the priority list behind every paying customer. During this import we were allowed to tie up for 2 hours at one pier to offload

equipment that needed to be shipped to Seattle. From there we moved to another pier for the night and in the morning moved off that pier to anchor up in Captains Bay.

Moorings Recovered 8
Moorings Deployed 5
CTD Casts 26

Station Locations:

Depart Kodiak AK.	57 45.000 N	152 29.600 W
CTD001 Chiniak	57 42.896 N	152 17.350 W
Rec. 05-CB-1A	57 43.324 N	152 17.629 W
Deploy 06-CB-1A	57 43.334 N	152 17.627 W
CTD002	57 43.478 N	152 18.292 W
CTD003	57 28.934 N	154 48.271 W
Rec. 05-SSP-3A	57 28.885 N	154 48.392 W
Deploy 06-SSP-3A	57 29.009 N	154 48.454 W
CTD004	57 36.943 N	155 04.508 W
Deploy 06-SSP-2A	57 36.846 N	155 04.531 W
CTD005	57 40.814 N	155 11.989 W
Deploy 06-SSP-1A	57 40.807 N	155 12.243 W
CTD006 FOX61	57 43.247 N	155 15.612 W
CTD007 FOX60	57 40.969 N	155 10.084 W
CTD008 FOX59	57 38.559 N	155 04.132 W
CTD009 FOX58	57 36.366 N	155 00.328 W
CTD010 FOX57	57 33.270 N	154 52.265 W
CTD011 FOX56	57 30.820 N	154 46.971 W
CTD012 FOX55	57 28.525 N	154 42.280 W
Rec. 05-SSP-2A	57 33.183 N	155 17.772 W

[Note: Mooring 05-SSP-2A was not recovered due to a Faulty release.]

CTD013 Pavlof Bay	55 10.880 N	161 41.180 W
Rec. 5-Pavlof Bay-1A	55 10.866 N	161 41.191 W
Deploy 6Pav Bay-1A	55 10.866 N	161 41.191 W
CTD014 Pav. Bay	55 10. 880 N	161 41.180 W
04-GSP-9A	52 09.930 N	168 12.367 W

[Acoustic search for missing GSP-9A with ship sounders And WestMar net sonde unit.]

CTD015 Gulf Stream	52 42.20 N	168 49.57 W
CTD016 GS	52 40.64 N	168 47.60 W
CTD017 GS	52 33.10 N	168 37.27 W
CTD018 GS	52 23.45 N	168 27.23 W
CTD019 GS	52 10.48 N	168 11.66 W
<i>Amukta Pass</i>		
CTD020	52 25.84 N	171 23.76 W
CTD021	52 25.85 N	171 27.17 W
<i>Standby for bad weather</i>		
CTD022	52 22.93 N	172 07.80 W
Rec. 5AMP-4A	52 23.00 N	172 07.00 W
CTD023	52 23.76 N	171 56.42 W
Rec. 5AMP-3A	52 24.00 N	171 55.00 W
CTD024	52 25.39 N	171 41.58 W
Rec. 5AMP-2A	52 25.00 N	171 40.00 W
CTD025	52 26.71 N	171 27.60 W
Rec. 5AMP-1A	52 26.00 N	171 27.00 W
CTD026	52 25.67 N	171 23.86 W
Arrive Dutch Harbor	53 55.00 N	166 31.00 W