## CRUISE REPORT

Cruise Number: MF05-04

Vessel: NOAA Ship Miller Freeman
Area of Operations: Bering Sea
Itinerary: Depart Kodiak, Alaska: 14 March 2005

Arrive Dutch Harbor, Alaska: 19 March 2005
Participating Organizations: NOAA/PMEL/FOCI
Chief Scientist: Carol DeWitt
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## Other Participating Scientists:

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\text { William Floering } \mathrm{M} \quad \text { USA } \quad \text { NOAA/PMEL }
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Cruise Objectives: The primary objective of the cruise was the recovery and deployment of moorings in the Gulf of Alaska. The second objective was physical oceanographic property sampling at and near the mooring locations.

## Summary of Operations and Samples Collected:

CTD Casts 24
Moorings Recovered 6
Moorings Deployed 5
Salinity Samples 24

## Cruise Summary:

On March $14^{\text {th }}$ NOAA Ship MILLER FREEMAN departed Dutch Harbor, Alaska for the Pavlof Bay mooring site. A CTD, mooring recovery, mooring deployment and second CTD were completed.

The ship proceeded from Pavlof Bay to Shelikof Strait. A CTD, mooring recovery of 04SSP-1A, and mooring deployment of 05SSP-1A were completed at Shelikof Strait site 1. A CTD, mooring recovery of 04SSP-2A, and mooring deployment of 05SSP-2A were completed at Shelikof Strait site 2. The mooring 04SSP-2A had moved approximately 1.4 miles from its deployment location. A CTD, mooring recovery of 04SSP-3A, and mooring deployment of 05SSP-3A were completed at Shelikof Strait site 3. The Line 8 CTDs were completed.

We then proceeded to the Gore Point CTD line. The five CTDs most inshore were completed.
The EDD test mooring - a surface mooring - was recovered without incident.
The GAK CTD line was completed except for GAK site 4 . GAK site 4 was not completed since there may have been a University of Alaska mooring deployed at the site and we were unable to obtain a location for the possible mooring.

We then proceeded to mooring site 04GBP-12A. During FOCI’s fall cruise the initial mooring interrogation of 04GBP-12A indicated that the release was horizontal. Later during the same cruise, after it was determined that the deck unit had been acting flaky, we revisited the mooring site and were unable to locate the mooring. During this cruise, MF05-04, we were able to locate mooring 04GBP-12A and confirm that the release was horizontal. The mooring was located at $5841.061 \mathrm{~N}, 14850.900 \mathrm{~W}$ - the release range was 217 m at 200 m depth. At a later date, we may return with a remotely operated vehicle (ROV) to recover this mooring.

We proceeded to the Chiniak Bay mooring site. A CTD, mooring recovery, mooring deployment and second CTD were completed. During recovery operations, the mooring took approximately 10 minutes to surface.

## Summary of Cruise:

Days lost to weather - 0
Days lost to equipment failure - 0

## Acknowledgments:

It was a pleasure working with Captain John Herring and his crew.

## Attachments:

Table 1: Cruise Summery MF05-04

| Date | Time | Button | Notes | LATITUDE | LONGITUDE |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 3/15/2005 | 18:37:19 | CTD at Depth | CTD001 | 5511.1948 N | 16142.0748 W |
| 3/15/2005 | 19:20:30 | Mooring Recover | 04PA-1A | 5510.8617 N | 16141.1440 W |
| 3/15/2005 | 20:48:04 | Mooring Deploy | 05PA-1A | 5510.8657 N | 16141.1976 W |
| 3/15/2005 | 21:01:12 | CTD at Depth | CTD 002 | 5510.8456 N | 16141.4435 W |
| 3/17/2005 | 1:09:32 | CTD at Depth | CTD 003 | 5740.5764 N | 15513.0468 W |
| 3/17/2005 | 1:45:49 | Mooring Recover | 04SSP-1A | 5740.8978 N | 15512.4746 W |
| 3/17/2005 | 2:39:00 | Mooring Deploy | 05SSP-1A | 5741.05 N | 15512.217 W |
| 3/17/2005 | 3:26:35 | CTD at Depth | CTD 004 | 5737.3944 N | 15505.3258 W |
| 3/17/2005 | 4:05:36 | Mooring Recover | 04SSP-2A | 5737.9787 N | 15501.6406 W |

April 14, 2005

| Date | Time | Button | Notes | LATITUDE | LONGITUDE |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 3/17/2005 | 4:55:41 | Mooring Deploy | 05SSP-2A | 5737.1112 N | 15504.4866 W |
| 3/17/2005 | 6:16:10 | CTD at Depth | CTD 005 | 5728.5463 N | 15448.6904 W |
| 3/17/2005 | 6:41:29 | Mooring Recover | 04SSP-3A | 5728.9461 N | 154 48.6271 W |
| 3/17/2005 | 9:13:53 | Mooring Deploy | 05SSP-3A | 5729.0174 N | 15448.4534 W |
| 3/17/2005 | 9:34:01 | CTD at Depth | CTD 006 (CTD after deployment of 05SSP-3A) | 5729.1077 N | 154 46.8194 W |
| 3/17/2005 | 10:00:59 | CTD at Depth | CTD 007 (Line 8, station 55) | 5728.4340 N | 154 42.3450 W |
| 3/17/2005 | 10:55:38 | CTD at Depth | CTD 008 (Line 8, station 57) | 5733.1970 N | 154 52.9098 W |
| 3/17/2005 | 11:43:03 | CTD at Depth | CTD 009 (Line 8, station 58) | 5736.3079 N | 15500.6847 W |
| 3/17/2005 | 12:15:14 | CTD at Depth | CTD 010 (CTD after deployment of 05SSP-2A) | 5737.6563 N | 155 04.2071 W |
| 3/17/2005 | 13:10:14 | CTD at Depth | CTD 011 (CTD after deployment of 05SSP-1A) | 5740.6726 N | 155 11.8998 W |
| 3/17/2005 | 13:20:48 | CTD at Depth | CTD 011 DETAIL RECAST | 5740.5154 N | 155 11.8945 W |
| 3/17/2005 | 14:02:27 | CTD at Depth | CTD 012 (Line 8, station 61) | 5743.1031 N | 155 15.4344 W |
| 3/18/2005 | 6:27:26 | CTD at Depth | CTD 013 (GP4) | 5852.7036 N | 15054.2301 W |
| 3/18/2005 | 7:14:02 | CTD at Depth | CTD 014 (GP3) | 5856.8460 N | 15055.9812 W |
| 3/18/2005 | 7:55:13 | CTD at Depth | CTD 015 (GP2) | 5900.5956 N | 15057.6673 W |
| 3/18/2005 | 8:40:23 | CTD at Depth | CTD 016 (GP1) | 5905.9565 N | 15059.3067 W |
| 3/18/2005 | 9:16:07 | CTD at Depth | CTD 017 (GP0) | 5909.4028 N | 151 00.8657 W |
| 3/18/2005 | 16:40:48 | Mooring Recover | EDD test buoy | 5918.0182 N | 14858.6397 W |
| 3/18/2005 | 19:15:52 | CTD at Depth | CTD 018 (GAK 6) | 5909.5271 N | 148 46.0063 W |
| 3/18/2005 | 20:16:53 | CTD at Depth | CTD 019 (GAK 5) | 5915.4580 N | 14854.7214 W |
| 3/18/2005 | 22:14:48 | CTD at Depth | CTD 020 (GAK-3) | 5933.2600 N | 14911.0577 W |
| 3/18/2005 | 23:19:54 | CTD at Depth | CTD 021 (GAK-2) | 5941.3511 N | 149 19.7472 W |
| 3/19/2005 | 0:10:52 | CTD at Depth | CTD 022 (GAK-1) | 5945.7584 N | 149 23.8464 W |
| 3/19/2005 | 6:21:02 | Mooring Recover Attempt | 04GBP-12A | 5841.2819 N | 14850.9823 W |
| 3/19/2005 | 16:52:51 | CTD at Depth | CTD023 | 5743.7607 N | 152 16.9370 W |
| 3/19/2005 | 17:27:03 | Mooring Recover | 04CB-1A | 5743.2945 N | 152 17.2380 W |
| 3/19/2005 | 18:41:27 | Mooring Deploy | 05CB-1A | 5743.3376 N | 152 17.6197 W |
| 3/19/2005 | 18:58:34 | CTD at Depth | CTD 024 | 5743.4393 N | 152 18.5898 W |

Figure 1: Station Map


