

CRUISE REPORT

Cruise Number: [MF-01-01, Leg 2](#)
FOCI Number: none
Ship: NOAA Ship MILLER FREEMAN

Area of Operations: Bering Sea

Itinerary:

Dutch Harbor, Alaska — February 5, 2001
Dutch Harbor, Alaska — February 10, 2001

Participating Organizations:

NOAA — Pacific Marine Environmental Laboratory (PMEL)
NOAA — Alaska Fisheries Science Center (AFSC)
University of Alaska — Fairbanks (UAF)
University of Southampton

Chief Scientist:

Carol DeWitt, PMEL

Personnel:

Broerse, Alexandra (Southampton)
Floering, Bill (PMEL)
Henrichs, Susan (UAF)
Rho, TaeKuen (UAF)
Salo, Sigrid (PMEL)
Thornton, Sarah (UAF)

Objectives of Cruise:

Continue acquisition of long-term biological and physical time series. Recover and deploy moorings at FOCI sites 2, 3 and 6

Summary of Operations:

CTD casts:	17
Bongos, 60 cm:	6
Mooring deployments:	3
Mooring recoveries:	5
Bottom samples:	3

Samples Collected:

Nutrient samples:	89
Coccolithophore samples:	34
Sediment clamshell samples:	3
Plankton isolation samples:	2

Summary of Cruise (see Table 1 and Figure 1):

After departure from Dutch Harbor, we steamed to site 2, in the Middle Shelf Domain. Upon arrival at site 2, we completed a CTD cast. Next, we recovered one UAF sediment trap mooring (F-00BSST-2W), one subsurface mooring (F-00BS-2W), and one profiler mooring (F-00BSP-2W). We deployed a profiler mooring (F-01BSP-2S), and began the deployment of a subsurface mooring (F-01BS-2B). Last-minute equipment failure resulted in a two-hour delay - with the lower part of mooring F-01BS-2B suspended in the water column. Once repairs were accomplished, mooring deployment was successfully completed. The UAF sediment trap mooring (F-01BSST-2S) was the last mooring deployed at site 2. A CTD cast (nutrients, chlorophylls), a sediment grab, and a live net tow were taken at this station. A CTD cast (nutrients, chlorophyll) and bongo tow were completed on the east and west stations of site 2. At the station on the west side of site 2, a sediment grab sample was also collected.

While completing the work at site 2, we received information that a fishing vessel had recovered the top portion of mooring F-99BS-2C. The fishing vessel reported the position where it dropped the lower portion of the mooring. Our cruise plans were then modified to include time for a mooring recovery attempt for F-99BS-2C.

We still had time to proceed to site 3. We recovered one profiler mooring (F-00BSP-3F). We completed a CTD cast (nutrients, chlorophylls), a bongo tow and a sediment grab sample. A CTD cast (nutrients, chlorophyll) and bongo tow were completed on the east and west stations of site 3.

We then proceeded to the lost mooring site F-99BS-2C. We completed a CTD at the site. Although we located the release, the mooring did not surface, so dragging operations were initiated. Eight MTRs and one Seacats were recovered during the dragging operations; one Seacat and one nutrient meter were recovered by the fishing vessel - the MTRs at 15 and 45 meters and the RCM9 at 14 meters were not recovered.

After the mooring recovery, we went back to site 2 and completed CTDs at all of the five surrounding stations. Then we completed the four CTD stations between site 2 and site 3. The ship then proceeded to Dutch Harbor.

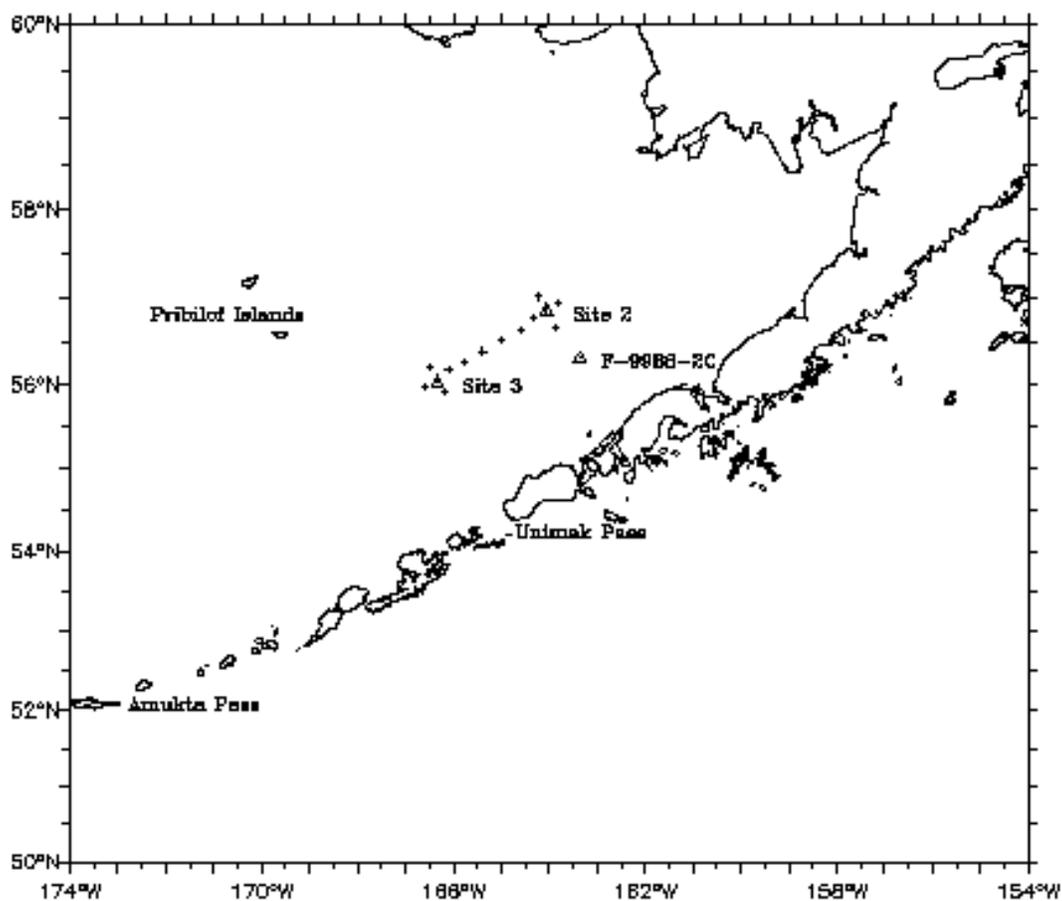
Captain Smehil and his crew were a pleasure to work with. Special thanks for their scheduling flexibility and the expertise in mooring dragging operations.

Table 1. Schedule of activities

Activity	Date	Time (GMT)	Latitude	Longitude	Approx Bottom Depth (m)
Depart Dutch Harbor			53° 54.50 N	166° 30.90 W	
CTD	6-Feb	1647	56° 52.91 N	164° 2.50 W	68
Recover F-00BSST-2W		1834	56° 53.14 N	164° 3.70 W	69
Recover F-00BS-2C		1936	56° 52.92 N	164° 3.35 W	69
Recover F-00BSP-2F		2104	56° 52.89 N	164° 3.68 W	69
Deploy F-01BS-2B		2249	56° 52.76 N	164° 3.88 W	72
Deploy F-01BSP-2S	7-Feb	0409	56° 52.86 N	164° 3.55 W	71
Deploy F-01BSST-2S		0531	56° 53.04 N	164° 3.84 W	71
Sediment Clamshell Grab		0553	56° 53.00 N	164° 3.97 W	71
CTD		0620	56° 52.79 N	164° 4.34 W	70
Bongo		0704	56° 53.02 N	164° 3.76 W	72
CTD		0822	56° 56.70 N	163° 51.15 W	69
Bongo		0854	56° 56.38 N	163° 50.48 W	68
Bongo		1051	56° 45.96 N	164° 20.30 W	74
CTD		1119	56° 45.97 N	164° 20.21 W	74
Sediment Clamshell Grab		1151	56° 46.04 N	164° 19.96 W	73
Recover F-00BSP-3W		1931	56° 3.03 N	166° 20.41 W	121

Table 1. Schedule of activities (continued)

Activity	Date	Time (GMT)	Latitude	Longitude	Approx Bottom Depth (m)
CTD		2028	56° 2.64 N	166° 20.22 W	121
Bongo		2054	56° 2.83 N	166° 19.77 W	122
Sediment Clamshell Grab		2136	56° 3.03 N	166° 20.23 W	121
CTD		2248	56° 10.08 N	166° 5.94 W	106
Bongo		2314	56° 9.91 N	166° 6.04 W	106
CTD	8-Feb	0146	55° 59.23 N	166° 35.31 W	130
Bongo		0211	55° 59.20 N	166° 34.45 W	130
CTD		2252	56° 19.20 N	163° 22.22 W	86
Mooring drag operations for F-99BS-2C	9-Feb	0054	56° 19.12 N	163° 22.33 W	87
F-99BS-2C on-board		0612	56° 18.42 N	163° 21.30 W	88
CTD		0940	56° 39.89 N	163° 52.37 W	76
CTD		1149	56° 56.40 N	163° 49.78 W	69
CTD		1333	57° 1.05 N	164° 12.78 W	67
CTD		1444	56° 53.51 N	164° 4.90 W	71
CTD		1629	56° 45.85 N	164° 20.02 W	74
CTD		1808	56° 37.90 N	164° 35.55 W	76
CTD		2005	56° 30.48 N	164° 59.92 W	79
CTD		2144	56° 23.51 N	165° 23.29 W	88
CTD		2319	56° 16.43 N	165° 46.39 W	92
Arrive Dutch Harbor			53° 54.50 N	166° 30.90 W	



MF01-01 OPERATIONS

Figure 1. Location of operations.