

CRUISE REPORT

Cruise Number: MF-08-10, leg 2

FOCI Number: FOCI

Ship: NOAA Ship MILLER FREEMAN

Area of Operations: Bering Sea

Itinerary:

Departure - September 21, 2008, 1500, Dutch Harbor, AK

Arrival - September 30, 2008, 0900, Dutch Harbor, AK

Participating Organizations:

NOAA - Pacific Marine Environmental Laboratory (PMEL)
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NOAA - Alaska Fisheries Science Center (AFSC)
7600 Sand Point Way N.E.
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Applied Research Laboratory (APL)
The Pennsylvania State University
State College, PA 16804

Chief Scientist: Carol DeWitt, NOAA/PMEL

Personnel:

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Antonio Jenkins, NOAA/PMEL
Peter Proctor, NOAA/PMEL
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Jennifer Miksis-Olds, APL

Objectives of Cruise:

To recover and deploy surface and subsurface oceanographic instrumentation moorings. To complete conductivity, temperature and depth (CTD) profiler casts.

Summary of Operations:

CTD casts	16
Mooring deployments	6
Mooring recoveries	10
PALACE float buoy deployments	2

Samples Collected:

Chlorophyll samples	64
Nutrient samples	69
Nutrient samples (UAF)	18
Salinity samples	12

Summary of Cruise:

The NOAA Ship MILLER FREEMAN departed Dutch Harbor en route to Amukta Pass on September 21, 2008, 1500 L. Shortly after departing Dutch Harbor, we completed a CTD cast to test the new SBE-32 CTD carousel. One of the twelve Niskin bottles hung up on the winch wire. This was repaired by the Survey Department prior to the first CTD at Amukta Pass.

We arrived at the easternmost CTD station at Amukta Pass on the morning of September 22nd. A CTD with nutrient samples was completed. We then proceeded to the first mooring site where a CTD with nutrient samples was completed prior to mooring operations. The mooring - 08AMP-1A - was recovered successfully. We then proceeded to the second mooring site where a CTD with nutrient samples was completed prior to mooring operations. The mooring - 08AMP-2A - was recovered successfully. We then proceeded to the third mooring site where a CTD with nutrient samples was completed prior to mooring operations. The release was difficult to establish communications with - perhaps due to tides causing the release to lean or possibly the surrounding topography. However, eventually the release worked and the mooring - 08AMP-3A - was recovered successfully. There were no problems communicating with the release after it had been released. We then proceeded to the fourth mooring site where a CTD with nutrient samples was completed prior to mooring operations. The mooring - 08AMP-4A - was recovered successfully. At the sixth site - westernmost - a CTD with nutrient samples was completed.

We went to 07AMP-1A and searched near location 52 25.984' N, 171 27.0' W for approximately one hour with the 18 and 38 KHz ship sounder. In addition, the release was repeatedly interrogated but did not respond.

We deployed two ARGO drifters during our transit to Bering Sea site 5. The first ARGO drifter 4010 was deployed at 9/23/08(L), 2023 GMT at 53 30.258' N, 174 30.288'W at a depth of ~3700 m. The drifter was lowered by rope into the water by two personnel standing on the portside hero platform. The drifter did not right itself while we were alongside it. The second ARGO drifter 4009 was deployed - using the same technique - at 9/23/08(L), 0415 GMT at 54 59.555' N, 174 29.931' W at a depth of ~3700 m. The drifter righted itself while we were alongside it.

We proceeded to mooring site 5, arriving on the morning of September 25th. Two CTDs were completed to accommodate the nutrient and chlorophyll sampling. The release on mooring 08BSV-5A did not communicate. Mooring 07BSP-5B and 07BS-5B were recovered successfully. The release on mooring 08BSV-5A continued not to be heard via the deck set; but was identified while using the headphones. It was successfully released and recovered. Mooring 08BS-5B was deployed; followed by the deployment of 08BSP-5B. A CTD with nutrient and chlorophyll samples was completed.

We proceeded to mooring site 4, arriving on the morning of September 26th. One CTD with nutrient and chlorophyll samples was completed. No response was received from 08BS-4A. We recovered 08BSP-4A and deployed 08BSP-4B. We then ran a search pattern for 08BS-4A for a little over 24 hours. We did not locate the mooring. We then deployed 08BS-4B - followed by one CTD with nutrient and chlorophyll samples. We tried searching north of the mooring site for a couple of hours - again we did not locate 08BS-4A.

We proceeded to mooring site 2, arriving on the morning of September 28th. Two CTDs were completed to accommodate the nutrient and chlorophyll sampling. We recovered 08BST-2A and 08BSM-2A. There was no response from 08BSP-2A. We deployed 08BS-2C and completed two CTDs with nutrient and chlorophyll samples. We ran a search pattern for 08BSP-2A for approximately 20 hours. We did not locate the mooring. We deployed 08BSP-2B followed by a CTD.

Due to time spent running search patterns for moorings, we did not have time to go to 07KC-1A. We proceeded to Dutch Harbor where we disembarked.

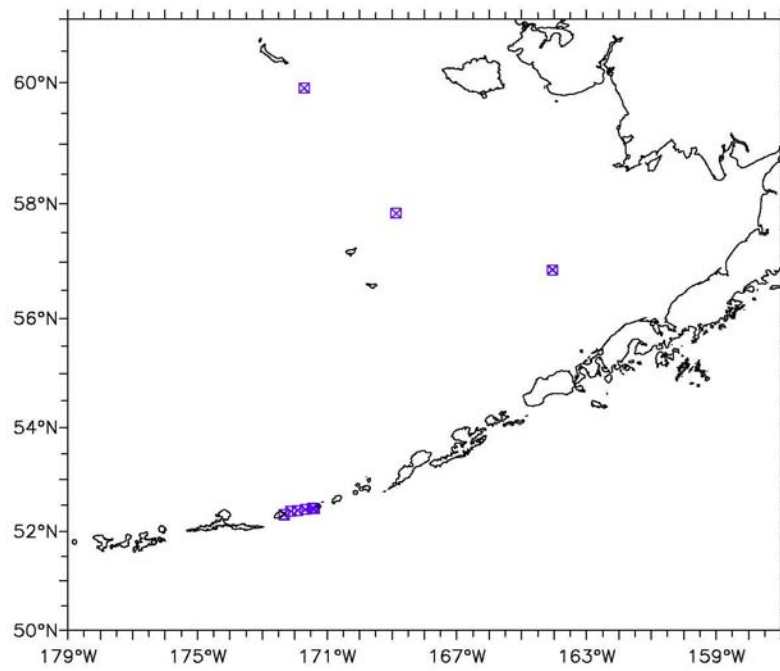
Acknowledgements: It was a pleasure to work with Captain Hopkins and his crew. Captain Hopkins' expertise and support to the scientific party were appreciated and were an essential factor in the success of this cruise. The enthusiasm and hard work of the crew - especially at the end of another long field season - is greatly appreciated.

Specifics of operations:

Date	Time	NOTES	NS-6000i-Lat	NS-6000i-Lon	Approx Depth (m)
9/22/2008	1:15:42	CB Down	54 00.378' N	166 33.385' W	205
9/22/2008	18:47:43	CTD 001	52 26.391' N	171 24.052' W	230
9/22/2008	19:53:17	CTD 002	52 27.649' N	171 28.730' W	483
9/22/2008	20:52:15	08AMP-1A recovered	52 26.977' N	171 26.891' W	418
9/22/2008	22:12:39	CTD 003	52 25.599' N	171 40.043' W	514
9/22/2008	23:06:41	08AMP-2A recovered	52 24.935' N	171 39.895' W	453
9/23/2008	0:39:09	CTD 004	52 24.669' N	171 54.861' W	296
9/23/2008	1:39:58	08AMP-3A recovered	52 24.064' N	171 54.939' W	304
9/23/2008	2:54:11	CTD 005	52 22.632' N	172 05.963' W	363
9/23/2008	3:54:18	08AMP-4A recovered	52 22.664' N	172 07.139' W	368
9/23/2008	5:14:15	CTD 006	52 18.602' N	172 15.167' W	194
9/23/2008	20:23:37	drifter 4010	53 30.298' N	174 30.302' W	3700
9/24/2008	4:15:58	drifter 4009	54 59.955' N	174 29.931' W	3700
9/25/2008	15:46:57	CTD 007	59 54.977' N	171 42.751' W	67
9/25/2008	16:23:14	CTD 008	59 55.109' N	171 42.044' W	66
9/25/2008	18:43:10	07BSP-5B recovered	59 54.538' N	171 42.532' W	67
9/25/2008		07BS-5B recovered			67
9/25/2008	19:58:48	08BSV-5A recovered	59 54.508' N	171 42.622' W	67
9/25/2008	21:36:24	08-BS-5B deployed	59 54.586' N	171 42.468' W	67
9/25/2008	22:32:28	08-BSP-5B deployed	59 54.285' N	171 42.285' W	67
9/25/2008	22:54:33	CTD 009	59 54.249' N	171 42.614' W	67
9/26/2008	15:42:26	CTD 010	57 52.153' N	168 52.802' W	69
9/26/2008	17:41:54	08BSP-4A recovered	57 51.289' N	168 52.459' W	68
9/26/2008	19:05:35	08BSP 4B deployed	57 51.773' N	168 52.608' W	68
9/27/2008	22:29:18	08BS-4B deployed	57 51.452' N	168 52.853' W	69
9/27/2008	22:53:27	CTD 011	57 51.429' N	168 53.903' W	69
9/28/2008	15:47:27	CTD 012	56 51.334' N	164 02.648' W	70
9/28/2008	16:29:53	CTD 013	56 51.343' N	164 02.946' W	70

Date	Time	NOTES	NS-6000i-Lat	NS-6000i-Lon	Approx Depth (m)
9/28/2008	18:21:16	08BST-2A recovered	56 51.389' N	164 03.936' W	70
9/28/2008	21:01:14	08BSM-2A recovered	56 51.211' N	164 04.055' W	69
9/29/2008	0:45:11	08BS-2C deployed	56 51.824' N	164 03.051' W	69
9/29/2008	1:07:33	CTD 014	56 51.498' N	164 03.168' W	69
9/29/2008	1:39:11	CTD 015	56 51.672' N	164 03.449' W	69
9/29/2008	22:08:00	08BSP-2B deployed	56 51.989' N	164 03.002' W	69
9/29/2008	22:25:00	CTD 016	56 51.70' N	164 04.07' W	69

Attachments:



MF08-Fall