

FINAL CRUISE INSTRUCTIONS

FOCI

Miller Freeman Cruise *MF-02-01 – Leg 1*
January 28 - February 3, 2002

William Floering, Chief Scientist
NOAA – Pacific Marine Environmental Laboratory
7600 Sand Point Way, NE
Seattle, Washington 98115

AREA:

Northern Gulf of Alaska

ITINERARY:

Depart Seattle WA: 1200 January 28, 2002
Arrive Kodiak AK: 1200 February 3, 2002 (TNG)

PARTICIPATING ORGANIZATIONS:

NOAA - Pacific Marine Environmental Laboratory (PMEL)

CRUISE DESCRIPTION:

Fisheries-Oceanography Coordinated Investigations (FOCI) is an effort by NOAA and associated academic scientists. The FOCI core study is a Shelikof Strait (western Gulf of Alaska) walleye pollock project. FOCI also supports associated projects, such as the Arctic Research Initiative, U. S. GLOBEC, and Steller sea lion research that address scientific issues related to FOCI and NOAA's mission. FOCI's goal is to understand the effects of abiotic and biotic variability on ecosystems of the North Pacific Ocean and Bering Sea in order to discern the physical and biological processes that determine recruitment variability of commercially valuable finfish and shellfish stocks in Alaskan waters.

CRUISE OBJECTIVES:

We will be releasing 4 ARGOS drifters, retrieving 4 and deploying 1 oceanographic moorings in the northern Gulf of Alaska.

APPLICABILITY:

These instructions, with FOCI Standard Operating Instructions for NOAA Ship MILLER FREEMAN dated October 12, 2000 present complete information for this cruise.

1.0 PERSONNEL

1.1 CHIEF SCIENTIST:

Floering, William (206) 526-6480 William.Floering@noaa.gov	M/USA	NOAA/PMEL
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The Chief Scientist has the authority to revise or alter the technical portion of the instructions as work progresses provided that, after consultation with the Commanding Officer, it is ascertained that the proposed changes will not: (1) jeopardize the safety of personnel or the ship; (2) exceed the overall time allotted for the project; (3) result in undue additional expenses; and (4) alter the general intent of these project instructions.

1.2 PARTICIPATING SCIENTISTS:

Floering, William	M/USA	NOAA/PMEL
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1.3 NOAA MARINE OPERATIONS CENTER- PACIFIC CONTACT:

Larry Mordock
NOAA/Marine Operations Center-Pacific (MOP1x1)
1801 Fairview Ave. East
Seattle, WA 98102-3767
(206) 553 - 4764
Larry.Mordock@noaa.gov

1.4 PROGRAM CONTACTS:

Dr. Phyllis Stabeno
NOAA/AFSC
7600 Sand Point Way NE
Seattle, WA 98115
(206) 526-6453
phyllis.stabeno@noaa.gov

2.0 OPERATIONS

A standard oceanographic watch will be utilized which consists of a winch operator, a scientific staff of one and a Survey Tech on deck. Operations will be conducted 24 hours a day.

2.1 SUMMARY OF ACTIVITIES:

If time and weather allow we will drop 4 Argos drifter buoys on the transit from Seattle to the first mooring station. The 4 drifters would be evenly spaced between 59° 41.514' N 149° 22.04' W and 59° 07.689' N 148° 47.146' W on a line running south to north. The first mooring operation will be a recovery only at 56° 37.948' N 151° 04.156' W. This is a hydrophone anchored in 2600 meters of water. The instrument is 500 meters below the surface attached by 2100 meters of line to the release and additional glass floats. This is the only mooring activity that will not require a CTD cast. Following the recovery of HS2, we will pick up two moorings in Barnabus Canyon. A CTD cast will be conducted prior to the recovery of these two moorings.

01-BC-2A is at:	56° 49.020' N	152° 36.233' W
01-BCP-1A is at:	56° 54.157' N	152° 24.123' W

These mooring are in 150 meters of water. Mooring BC-2A has several instruments on the string. BCP-1A is shorter with an ADCP (300Khz) and a current meter attached. On the way to pick up scientists in Kodiak for leg 2, a mooring will be recovered and replaced in Chiniak Bay at 57° 43.24' N 152° 17.51' W.

2.2 PROCEDURES FOR OPERATIONS:

The following are operations to be conducted on this cruise. The procedures for these operations are listed in the FOCI SOI. Operations not addressed in the SOI and changes to standard procedures are addressed below. **NOTE:** Because the trawling and mooring operations may overlap we will not use the stern platform during this cruise. Mooring deployments will use the port side deck crane. Mooring recoveries may use the port side crane or the stern A-frame.

Oceanographic mooring retrievals/deployments
Satellite-Tracked Drifter Buoy (SOI 2.2.11)
CTD/Water samples (SOI 2.2.1)
EK500 monitoring (SOI 2.2.12)

3.0. FACILITIES AND EQUIPMENT

The following systems and their associated support services are essential to the cruise. Sufficient consumables, back-up units, and on-site spares and technical support must be in place to assure that operational interruptions are minimal. All measurement instruments are expected to have current calibrations, and all pertinent calibration information shall be included in the data package.

3.1 EQUIPMENT AND CAPABILITIES TO BE PROVIDED BY THE SHIP

- Oceanographic winch with slip rings and 3-conductor cable terminated for CTD
- Sea-Bird 911 plus CTD system with stand (Each CTD system should include underwater CTD, weights, and pinger and there should be one deck unit for the two systems)
- For CTD field corrections: AUTOSAL salinometer
- Sea-Bird SBE-19 Seacat system (backup system)
- Wire speed indicators and readout for quarterdeck
- Simrad EQ-50 echo sounder
- JRC JFV-200R color sounder recorder
- Use of Pentium PC in DataPlot for data analysis
- SCS (Scientific Computer System)
- Adequate deck lighting for night-time operations
- Navigational equipment including GPS and radar
- Safety harnesses for working on quarter deck and fantail

3.2 EQUIPMENT TO BE PROVIDED BY THE PROJECT

- Sea-Bird 911 plus CTD system
- Sea-Bird SBE-19 Seacat system (primary system)
- PMEL PC with SEASOFT software for CTD data collection and processing
- Fluorometer and light meter to be mounted on CTD
- CTD stand modified for attachment of fluorometer
- Conductivity and temperature sensor package to provide dual sensors on the primary CTD
- CTD rosette sampler
- IAPSO water
- Cruise Operations Data Base software and forms

3.3. SCIENTIFIC COMPUTER SYSTEM (SCS)

The ship's Scientific Computer System (SCS) shall operate throughout the cruise, acquiring and logging data from navigation, meteorological, oceanographic, and fisheries sensors. See FOCI Standard Operating Instructions for specific requirements.

4.0 DATA AND REPORTS

Data disposition, responsibilities and data requirements are listed in the FOCI Standard Operating Instructions.

5.0 ADDITIONAL INVESTIGATIONS AND PROJECTS

5.1 PIGGYBACK PROJECTS:

No piggyback projects are scheduled for this cruise.

6.0 MISCELLANEOUS

6.1. HAZARDOUS MATERIALS:

No HAZMATS will be brought aboard.

7.0 COMMUNICATIONS

7.1 IMPORTANT PHONE NUMBERS, FAX NUMBERS AND E-MAIL ADDRESSES:

AFSC/RACE Fax: (206) 526-6723

MILLER FREEMAN COMSAT (government account numbers): These are much cheaper than Inmarsat direct numbers and should always be used first.

800-678-0872, after voice prompt dial 330-394-113, after tone dial customer ID# (Voice)

800-678-0872, after voice prompt dial 761-267-348, after tone dial customer ID# (Fax)

Inmarsat (direct numbers)
011-872-330-394-113 (voice)
011-872-761-267-348 (fax)

CELLULAR: 206-660-7167

KODIAK ROAMER: 907-528-7626

DUTCH HARBOR ROAMER: 907-391-7626

(First dial the roamer, wait for dial tone, then dial cellular number.)

AFSC person: Firstname.Lastname@noaa.gov
PMC radio room: Radio.Room@noaa.gov
Direct to ship: noaa.ship.Miller.Freeman@noaa.gov
 (include the person's name in the subject field)
Individual on ship: Firstname.Lastname@mfnems.pmc.noaa.gov

8.0 APPENDICES

Appendix 1. Approximate positions for drifter releases and mooring recoveries/deployments

ARGOS 1	59° 07.69' N	148° 47.15' W
ARGOS 4	59° 41.51' N	149° 22.04' W
HS2	56° 37.95' N	151° 04.16' W
01-BC-2A	56° 49.02' N	152° 36.23' W
01-BCP1A	56° 54.16' N	152° 24.12' W
Chiniak Bay	57° 43.33' N	152° 17.62' W

Appendix 2. Map showing locations of operations

