

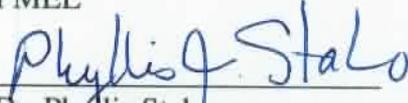
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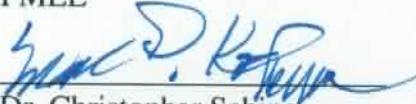
Pacific Marine Environmental Laboratory

Project Instructions

Date Submitted: March 15, 2013
Platform: NOAA Ship *Oscar Dyson*
Project Number: DY-13-05
Project Title: *EcoFOCI Spring Moorings*
Project Dates: April 29, 2013 – May 11, 2013

Prepared by:  Dated: 16 Apr 13
William Floering
Chief Scientist
PMEL

Approved by:  Dated: 22-Apr 2013
Dr. Phyllis Stabeno
Program Lead, EcoFOCI
PMEL

Approved by:  Dated: 4/22/2013
 Dr. Christopher Sabine
Director
PMEL

Approved by: _____ Dated: _____
Captain Wade J. Blake, NOAA
Commanding Officer
Marine Operations Center – Pacific

I. Overview

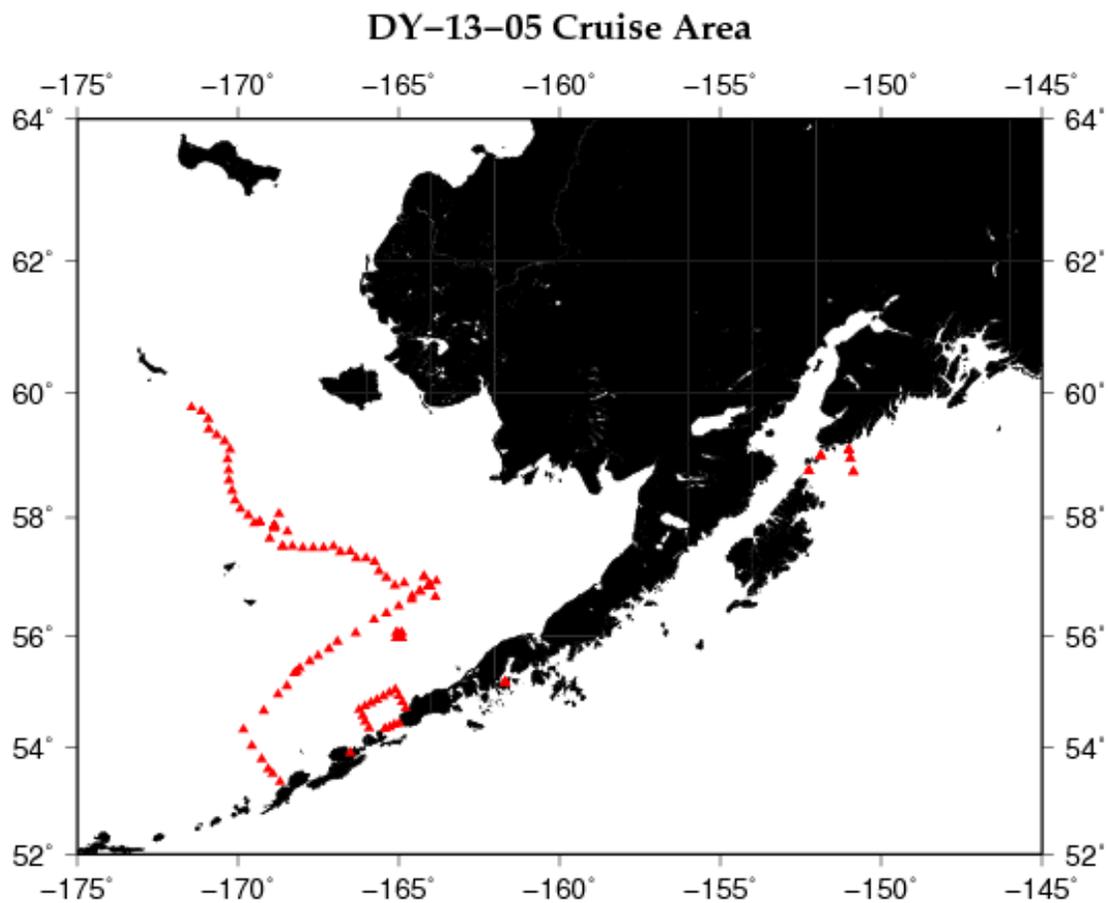
A. FOCI Spring Moorings April 29 – May 11, 2013

B. Service Level Agreements

Of the 13 DAS scheduled for this project, 0 DAS are funded by the program and 13 DAS are funded by OMAO. This project is estimated to exhibit a High Operational Tempo.

C. Operating Area (include optional map/figure showing op area)

Gulf of Alaska and Eastern Bering Sea - map shown below:



D. Summary of Objectives:

The primary objectives of this cruise will be to deploy and recover moorings in several locations in the Gulf of Alaska and the Bering Sea. Upon leaving Seward, 5 moorings will be deployed in the Gulf of Alaska in and around Gore Point. CTDs will be conducted after each deployment. The cruise will then proceed towards the Bering Sea, stopping along the way at Pavlof Bay to recover and deploy the mooring there. If time allows, the “Unimak Box” of CTDs will be conducted prior to entering the Bering Sea. Upon entering the Bering Sea, several drifters will be deployed. Weather permitting, mooring deployments for the Bering will start at Site 2 and work northward. Recoveries and deployments are planned for site 2 and 4 with multiple CTDs and bongo-tows planned for each site. In-between site 2 and 4, the 70m CTD line will be followed and sampled if time permits. Also, if the ice is clear north of Site 4 some sampling may occur on the 70m Line northward. Additionally CTD’s may be taken at the “Dog Leg Line” if time permits.

E. Participating Institutions:

NOAA - Pacific Marine Environmental Laboratory (PMEL)
7600 Sand Point Way N.E., Seattle, Washington 98115-6439

NOAA - Alaska Fisheries Science Center (AFSC)
7600 Sand Point Way N.E., Seattle, Washington 98115-0070

University of Alaska (UAF)
505 South Chandalar Drive
Fairbanks, AK 99775

F. Personnel/Science Party:

Name (Last, First)	Title	Date Aboard	Date Disembark	Gender	Affiliation	Nationality
William Floering	Chief Sci.	4/25/13	5/12/13	M	PMEL	USA
Carol DeWitt	Sci	4/27/13	5/12/13	F	PMEL	USA
Scott McKeever	Sci	4/27/13	5/12/13	M	PMEL	USA
Kathy Mier	Sci	4/27/13	5/12/13	F	AFSC	USA
Matthew Wilson	Sci	4/27/13	5/12/13	M	AFSC	USA
Dan Naber	Sci	4/25/13	5/12/13	M	UAF	USA
Peter Proctor	Sci	4/27/13	5/12/13	M	PMEL	USA
Frank Hubacz	Teacher	4/27/13	5/12/13	M	FPU	USA

G. Administrative

1. Points of Contacts

Bill Floering (Chief Scientist), PMEL, 7600 Sand Point Way NE, Bldg 3, Seattle WA 98115, ph: 206-526-6480, William.Floering@noaa.gov

Janet Duffy-Anderson (Alternate), AFSC, 7600 Sand Point Way NE, Bldg 4, Seattle WA 98115, ph: 206-526-6465, Janet.Duffy-Anderson@noaa.gov

Jeff Napp, AFSC, 7600 Sand Point Way NE, Bldg 4, Seattle WA 98115, ph: 206-526-4148, Jeff.Napp@noaa.gov

Phyllis Stabeno, PMEL, 7600 Sand Point Way NE, Bldg 3, Seattle WA 98115, ph: 206-526-6453, Phyllis.Stabeno@noaa.gov

2. Diplomatic Clearances
n/a
3. Licenses and Permits
N/A

II. Operations

A. Project Itinerary

Departure: April 29, 2013 0900 Seward, AK

Arrival: May 11, 2013 1200 Dutch Harbor, AK

B. Staging and De-staging

Container with equipment will be shipped directly to Seward from Seattle. Loading shall occur as appropriate before sailing. The scientific party will arrive at least one day early to assist with loading and preparation. The scientific party will be responsible for arranging vehicles for transporting themselves and equipment to the ship. Equipment will be off-loaded in Dutch Harbor and transport to proper shipping avenues will be conducted by the scientific party.

C. Operations to be Conducted

Due to the time of the year that this cruise occurs, the amount of mooring work accomplished and the order of operations will be highly dependent on ice, weather and daylight conditions.

The ship will depart on Monday, April 29, 2012 at 0900.

- a) **Gore Point Moorings:** Three ADCP moorings will be deployed around Gore Point. A CTD will be taken after each mooring deployment.
- b) **Kennedy and Stevenson Moorings:** Two ADCP moorings will be deployed in the straits between Afognak Island and the Kenai Peninsula. A CTD will be taken after each mooring deployment.

- c) **Pavlof Bay Mooring:** The mooring in Pavlof Bay will be recovered and then re-deployed. A CTD will be taken prior to or after mooring recovery.
- d) **Drifter Deployments:** Five 40m drogue drifters will be deployed upon entering the Bering Sea.
- e) **FOCI Bering Sea Site 2:** Depending on arrival timing, we will either proceed with mooring operations or with the CTD “box”. Prior to mooring operations, calibration CTDs (with nutrient and chlorophyll samples) will be completed. Mooring operations will consist of recovering two subsurface moorings and deploying one surface and one subsurface mooring. After the completion of all mooring operations, a CTD, with nutrient and chlorophyll samples, a MARMAP Bongo tow with 20 and 60 cm bongos and triplicate CalVET tows will be completed approximately 0.5 mile from the mooring site. At the four stations surrounding Site 2, a CTD and 20/60 bongo tow will be completed.
- f) **70 Meter Isobath Line:** A CTD will be deployed at each station along the isobath with collection of samples for salinity, chlorophyll, and nutrients. A 20/60 cm bongo will be deployed at every other station for collection of mesozooplankton. The CTDs will continue from mooring site 2 northward as time and ice conditions allow.
- g) **FOCI Bering Sea Site 4:** Depending on ice conditions, the ship will sample the 70m isobath until it reaches Site 4. Depending on conditions and time of day when Site 4 is reached, work will begin either on recovery/deployment of the moorings or CTD/Bongo operations.
- h) **Unimak CTD Box:** If time permits, a CTD (with nutrient and chlorophyll samples) will be deployed at each of 17 stations in a “box” around Unimak Pass. A 20/60 cm bongo will be deployed at every station within Unimak Pass and every other station on the other sides of the box for collection of mesozooplankton. This operation could be moved up if ice conditions do not allow for prompt recovery of moorings.
- i) **“Dog Leg” Line:** Similarly, up to 24 additional CTD stations may be sampled if time permits. Locations are in Appendix I.

D. Dive Plan

N/A

E. Applicable Restrictions

Conditions which preclude normal operations: Poor weather, equipment failure, unforeseen conditions, and ice coverage would all preclude normal operations. Poor weather would have to be waited out or the project track would have to be modified to provide the best weather possible. A-frame or winch failures would need to be addressed immediately for the project to continue. Ice coverage would negate the ability to pop moorings. These would have to be recovered later in the project (depending on ice forecasts) or by another vessel.

III. Equipment

- A. Equipment and Capabilities provided by the ship
- Oceanographic winch with slip rings and 3-conductor cable terminated for CTD,
 - 12 Khz hull mounted Edgetech Acoustic release transducer,
 - Oceanographic winch with slip rings and 3-conductor cable terminated for the SBE19plus for net tow operations,
 - Sea-Bird Electronics' SBE 911plus CTD system with stand, each CTD system should include underwater CTD, weights, and pinger. There should be a deck unit for the system,
 - 5 or 10-liter Niskin sampling bottles for use with rosette (10 plus 4 spares),
 - Conductivity and temperature sensor package to provide dual sensors on the CTD (primary),
 - For meteorological observations: 2 anemometers (one R. M. Young system interfaced to the SCS), calibrated air thermometer (wet-and dry-bulb) and a calibrated barometer and/or barograph,
 - Freezer space for storage of biological and chemical samples (blast and storage freezers, -20° C and -80°C), turned on and operating,
 - SIMRAD ES-60 and EK-60 echosounders,
 - SIMRAD ME-70 Downward-Facing Multi-Beam Sonar,
 - RD Instruments' ADCP written to disk,
 - Scientific Computer System (SCS),
 - Minimum of 2 computers with internet and e-mail access,
 - Removable stern platform (in place),
 - Laboratory space with storage space,
 - Sea-water hoses and nozzles to wash nets,
 - Adequate deck lighting for night-time operations,
 - Navigational equipment including GPS and radar,
 - Safety harnesses for working on quarterdeck and fantail,
 - Ship's crane(s) used for loading and/or deploying.
- B. Equipment and Capabilities provided by the scientists
- Sea-Bird Electronics' SBE-19plus SEACAT system,
 - Fluorometer, light meter and dual oxygen sensors to be mounted on CTD,
 - Conductivity and temperature sensor package to provide dual sensors on the CTD (backup),
 - 60-cm bongo sampling arrays,
 - 20 cm bongo arrays,

- Manual wire angle indicator,
- CalVET net array,
- Surface mooring (FOCI biophysical platforms),
- Subsurface moorings,
- Miscellaneous scientific sampling and processing equipment,
- Chlorophyll and nutrient sampling equipment,
- Winkler Oxygen Analysis rig,
- pCO2 system installed in flow-through system.

IV. Hazardous Materials

A. Policy and Compliance

The Chief Scientist is responsible for complying with FEC 07 Hazardous Materials and Hazardous Waste Management Requirements for Visiting Scientific Parties (or the OMAO procedure that supersedes it). By Federal regulations and NOAA Marine and Aviation Operations policy, the ship may not sail without a complete inventory of all hazardous materials by name and the anticipated quantity brought aboard, MSDS and appropriate neutralizing agents, buffers, or absorbents in amounts adequate to address spills of a size equal to the amount of chemical brought aboard, and a chemical hygiene plan. Documentation regarding those requirements will be provided by the Chief of Operations, Marine Operations Center, upon request.

Per FEC 07, the scientific party will include with their project instructions and provide to the CO of the respective ship 60 to 90 days before departure:

- A list of hazardous materials by name and anticipated quantity
- Include a chemical spill plan the addresses all of the chemicals the program is bringing aboard. This shall include:
 - Procedures on how the spilled chemicals will be contained and cleaned up.
 - A complete inventory (including volumes/amounts) of the chemical spill supplies and equipment brought aboard by the program. This must be sufficient to clean and neutralize all of the chemicals brought aboard by the program.
 - A list of the trained personnel that will be accompanying the project and the training they've completed.

Common Name of Material	Qty	Notes	Trained Individual	Spill control
Lithium 9v Batteries	25	In SeaBird and Wetlabs Instruments	Wm. Floering	N/A
Lithium AA Batteries	12	In SeaBird instruments Microcats Saft LS14500	Wm. Floering	N/A
Lithium D Cell Batteries	40	In ISUS instrument	Wm. Floering	N/A
Sodium Thiosulfate	1L of 0.16M		Dan Naber	ST

Common Name of Material	Qty	Notes	Trained Individual	Spill control
Potassium Iodate	1L of 0.0003M	Oxidizing, keep away from combustibles	Dan Naber	PI
Sulfuric Acid	0.5L of 5M	Clean up with Sodium Bicarbonate	Dan Naber	A
Sodium Hydroxide	0.5L of 8M	Neutralize with available acid	Dan Naber	B
Manganese Chloride	1L of 3M	Sweep up in case of spill	Dan Naber	MC
Mercuric Chloride	0.1L 10% Soln	See 'M' below	Dan Naber	M
Manganese Chloride	1L of 3M	For use with Oxygen titrations	Wm Floering	
Sodium Iodide/NaOH Soln	1L of 8M	For use with Oxygen titrations	Wm Floering	B
Sulfuric Acid	1L of 5M	For use with Oxygen titrations	Wm Floering	A
Sodium Thiosulfate	1L of 0.11M	For use with Oxygen titrations	Wm Floering	ST
Potassium Iodate	1L of 0.00167M	For use with Oxygen titrations	Wm Floering	PI
Dihydrogen Oxide	20L	For use with Oxygen titrations	Wm Floering	W
Formaldehyde	30gal of 37%	For use with sample preservation	Matt Wilson	F
Ethanol	4-1gal jugs @ 100%	For use with sample preservation	Matt Wilson	E
Sodium Borate	5Gal 6% Soln	For use with sample preservation	Matt Wilson	B
Sodium Borate	500g Dry Powder	For use with sample preservation	Matt Wilson	B

SPILL CONTROL

A: ACID

- Wear appropriate protective equipment and clothing during clean-up. Keep upwind. Keep out of low areas.
- Ventilate closed spaces before entering them.
- Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible.

- **Large Spills:** Dike far ahead of spill for later disposal. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal.
- **Small Spills:** Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.
- Never return spills in original containers for re-use.
- Neutralize spill area and washings with soda ash or lime. Collect in a non-combustible container for prompt disposal.
- J. T. Baker NEUTRASORB® acid neutralizers are recommended for spills of this product.

B:Base

- Use proper PPE.
- Ventilate area.
- Neutralize with dilute acid such as HCl if possible.
- Absorb with cat litter or vermiculite.
- Vacuum or sweep up material and place into suitable disposal container.
- Do not breath dust.
- Do not get water on spilled substances.

M: Mercury

- Spills: Pick up and place in a suitable container for reclamation or disposal in a method that does not generate dust. Sprinkle area with sulfur or calcium polysulfide to suppress mercury. Use Mercury Spill Kit if need be.

F: Formalin/Formaldehyde

- Ventilate area of leak or spill. Remove all sources of ignition.
- Wear appropriate personal protective equipment.
- Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible.
- Use non-sparking tools and equipment. Collect liquid in an appropriate container or absorb with an inert material (e. g., vermiculite, dry sand, earth), and place in a chemical waste container.
- Do not use combustible materials, such as saw dust.

PI:Potassium Iodate

- Avoid Contact with combustibles (wood, paper, clothing ...).
- Keep substance damp with water spray.
- Vacuum or sweep up material and place into suitable disposable container (plastic bag).

MC:Mercuric Chloride

- Vacuum or sweep up material and place into suitable disposable container (plastic bag).
- Wear SCBA or other appropriate breathing apparatus and PPE.
- Avoid breathing dust.
- Keep in closed container for disposal.

ST: Sodium Thiosulfate

- Ventilate area of leak or spill.
- Wear protective gloves and clean body-covering
- Use chemical safety goggles. Maintain eye wash fountain and quick-drench facilities in work area.

- Recover liquid or particulate in 5 gallon bucket. Absorb with a kitty litter and place in disposable bag. Do not use combustible materials, such as saw dust to absorb.

W: Water

- Absorb the liquid and wash with water
- Wear PPE

E: Ethanol

- Eliminate all ignition sources
- Wear PPE
- Dilute with water

Inventory of Spill Kit supplies

Product Name	Amount	Chemicals it is useful against	Amount it can clean up
Formalex	3 Gal	Formaldehyde	30 gal
FanPads	1 roll	Formaldehyde	825 ml
3M Sorbent Pads	1 box	Ethanol, Etc	Varies
Goggles	1 pair	All	N/A
Lab Coats	2	All	N/A
Plastic Bags	1 box	All – for used absorbents	Varies
Cat Litter	25 lbs	All	Varies
Spilfyter Kolorsafe Acid	10 lbs	Acids	4L
Spilfyter Kolorsafe Base	10 lbs	Bases	4L
Gloves, Apron	1 ea	All	N/A
Dustpan/ Brush	1 ea	All	N/A

Upon embarkation and prior to loading hazardous materials aboard the vessel, the scientific party will provide to the CO or their designee:

- An inventory list showing actual amount of hazardous material brought aboard
- An MSDS for each material
- Confirmation that neutralizing agents and spill equipment were brought aboard sufficient to contain and cleanup all of the hazardous material brought aboard by the program.

Upon departure from the ship, scientific parties will provide the CO or their designee an inventory of hazardous material indicating all materials have been used or removed from the vessel. The CO’s designee will maintain a log to track scientific party hazardous materials. MSDS will be made available to the ship’s complement, in compliance with Hazard Communication Laws.

Scientific parties are expected to manage and respond to spills of scientific hazardous materials. Overboard discharge of scientific chemicals is not permitted during projects aboard NOAA ships.

B. Radioactive Isotopes

The Chief Scientist is responsible for complying with OMAO 0701-10 Radioactive Material aboard NOAA Ships. Documentation regarding those requirements will be provided by the Chief of Operations, Marine Operations Center, upon request.

At least three months in advance of a domestic project and eight months in advance of a foreign project start date the shall submit required documentation to MOC-CO, including:

1. NOAA Form 57-07-02, Request to Use Radioactive Material aboard a NOAA Ship
2. Draft Project Instructions
3. Nuclear Regulatory Commission (NRC) Materials License (NRC Form 374) or a state license for each state the ship will operate in with RAM on board the ship.
4. Report of Proposed Activities in Non-Agreement States, Areas of Exclusive Federal Jurisdiction, or Offshore Waters (NRC Form 241), if only state license(s) are submitted).
5. MSDS
6. Experiment or usage protocols, including spill cleanup procedures.

Scientific parties will follow responsibilities as outlined in the procedure, including requirements for storage and use, routine wipe tests, signage, and material disposal as outline in OMAO 0701-10.

All radioisotope work will be conducted by NRC or State licensed investigators only, and copies of these licenses shall be provided per OMAO 0701-10 at least three months prior to the start date of domestic projects and eight months in advance of foreign project start dates.

- C. Inventory (itemized) of Radioactive Materials
n/a

V. Additional Projects

- A. Supplementary (“Piggyback”) Projects
- B. NOAA Fleet Ancillary Projects

VI. Disposition of Data and Reports

- A. Data Responsibilities
- B. Pre and Post Project Meeting

Prior to departure, the Chief Scientist will conduct a meeting of the scientific party to train them in sample collection and inform them of project objectives. Some vessel protocols, e.g., meals, watches, etiquette, etc. will be presented by the ship’s Operations Officer.

Post-Project Meeting: Upon completion of the project, a meeting will normally be held at 0830 (unless prior alternate arrangements are made) and attended by the ship’s officers, the Chief Scientist and members of the scientific party to review the project. Concerns regarding safety, efficiency, and suggestions for improvements for future projects should be discussed. Minutes of the post-project meeting will be distributed to all participants by email, and to the Commanding Officer and Chief of Operations, Marine Operations Center.

- C. Ship Operation Evaluation Report

Within seven days of the completion of the project, a Ship Operation Evaluation form is to be completed by the Chief Scientist. The preferred method of transmittal of this form is via email to omao.customer.satisfaction@noaa.gov. If email is not an option, a hard copy may be forwarded to:

Director, NOAA Marine and Aviation Operations
NOAA Office of Marine and Aviation Operations
8403 Colesville Road, Suite 500
Silver Spring, MD 20910

VII. Miscellaneous

- A. Meals and Berthing

The ship will provide meals for the scientists listed above. Meals will be served 3 times daily beginning one hour before scheduled departure, extending throughout the project, and ending two hours after the termination of the project. Since the watch schedule is split between day and night, the night watch may often miss daytime meals and will require adequate food and beverages (for example a variety of sandwich items, cheeses, fruit, milk, juices) during what are not typically meal hours. Special dietary requirements for scientific participants will be made available to the ship's command at least seven days prior to the survey.

Berthing requirements, including number and gender of the scientific party, will be provided to the ship by the Chief Scientist. The Chief Scientist and Commanding Officer will work together on a detailed berthing plan to accommodate the gender mix of the scientific party taking into consideration the current make-up of the ship's complement. The Chief Scientist is responsible for ensuring the scientific berthing spaces are left in the condition in which they were received; for stripping bedding and linen return; and for the return of any room keys which were issued. The Chief Scientist is also responsible for the cleanliness of the laboratory spaces and the storage areas utilized by the scientific party, both during the project and at its conclusion prior to departing the ship.

All NOAA scientists will have proper travel orders when assigned to any NOAA ship. The Chief Scientist will ensure that all non NOAA or non Federal scientists aboard also have proper orders. It is the responsibility of the Chief Scientist to ensure that the entire scientific party has a mechanism in place to provide lodging and food and to be reimbursed for these costs in the event that the ship becomes uninhabitable and/or the galley is closed during any part of the scheduled project.

All persons boarding NOAA vessels give implied consent to comply with all safety and security policies and regulations which are administered by the Commanding Officer. All spaces and equipment on the vessel are subject to inspection or search at any time. All personnel must comply with OMAO's Drug and Alcohol Policy dated May 7, 1999 which forbids the possession and/or use of illegal drugs and alcohol aboard NOAA Vessels.

B. Medical Forms and Emergency Contacts

The NOAA Health Services Questionnaire (NHSQ, Revised: 02 JAN 2012) must be completed in advance by each participating scientist. The NHSQ can be obtained from the Chief Scientist or the NOAA website <http://www.corporateservices.noaa.gov/~noaaforms/eforms/nf57-10-01.pdf>. The completed form should be sent to the Regional Director of Health Services at Marine Operations Center. The participant can mail, fax, or scan the form into an email using the contact information below. The NHSQ should reach the Health Services Office no later than 4 weeks prior to the project to allow time for the participant to obtain and submit additional information that health services might require before clearance to sail can be granted. Please contact MOC Health Services with any questions regarding eligibility or completion of the NHSQ. Be sure to include proof of tuberculosis (TB) testing, sign and date the form, and indicate the ship or ships the participant will be sailing on. The participant will receive an email notice when medically cleared to sail if a legible email address is provided on the NHSQ.

Contact information:

Regional Director of Health Services
Marine Operations Center – Pacific

2002 SE Marine Science Dr.
Newport, OR 97365
Telephone 541-867-8822
Fax 541-867-8856
Email MOP.Health-Services@noaa.gov

Prior to departure, the Chief Scientist must provide an electronic listing of emergency contacts to the Executive Officer for all members of the scientific party, with the following information: contact name, address, relationship to member, and telephone number.

C. Shipboard Safety

Wearing open-toed footwear or shoes that do not completely enclose the foot (such as sandals or clogs) outside of private berthing areas is not permitted. Steel-toed shoes are required to participate in any work dealing with suspended loads, including CTD deployments and recovery. The ship does not provide steel-toed boots. Hard hats are also required when working with suspended loads. Work vests are required when working near open railings and during small boat launch and recovery operations. Hard hats and work vests will be provided by the ship when required.

D. Communications

A progress report on operations prepared by the Chief Scientist may be relayed to the program office. Sometimes it is necessary for the Chief Scientist to communicate with another vessel, aircraft, or shore facility. Through various means of communications, the ship can usually accommodate the Chief Scientist. Special radio voice communications requirements should be listed in the project instructions. The ship's primary means of communication with the Marine Operations Center is via e-mail and the Very Small Aperture Terminal (VSAT) link. Standard VSAT bandwidth at 128kbs is shared by all vessels staff and the science team at no charge. Increased bandwidth in 30 day increments is available on the VSAT systems at increased cost to the scientific party. If increased bandwidth is being considered, program accounting is required it must be arranged at least 30 days in advance.

E. IT Security

Any computer that will be hooked into the ship's network must comply with the *NMAO Fleet IT Security Policy* 1.1 (November 4, 2005) prior to establishing a direct connection to the NOAA WAN. Requirements include, but are not limited to:

- (1) Installation of the latest virus definition (.DAT) file on all systems and performance of a virus scan on each system.
- (2) Installation of the latest critical operating system security patches.
- (3) No external public Internet Service Provider (ISP) connections.

Completion of these requirements prior to boarding the ship is required.

Non-NOAA personnel using the ship's computers or connecting their own computers to the ship's network must complete NOAA's IT Security Awareness Course within 3 days of embarking.

F. Foreign National Guests Access to OMAO Facilities and Platforms

All foreign national access to the vessel shall be in accordance with NAO 207-12 and RADM De Bow's March 16, 2006 memo (<http://deemedexports.noaa.gov>). National Marine Fisheries Service personnel will use the Foreign National Registration System

(FRNS) to submit requests for access to NOAA facilities and ships. The Departmental Sponsor/NOAA (DSN) is responsible for obtaining clearances and export licenses and for providing escorts required by the NAO. DSNs should consult with their designated NMFS Deemed Exports point of contact to assist with the process.

Foreign National access must be sought not only for access to the ship involved in the project, it must also be sought and approved for the dates of any DOC facilities (marine centers or port offices) that foreign nationals might have to traverse to access to and from the ship.

The following are basic requirements. Full compliance with NAO 207-12 is required. Responsibilities of the Chief Scientist:

- Provide the Commanding Officer with the e-mail generated by the FRNS granting approval for the foreign national guest's visit. This e-mail will identify the guest's DSN and will serve as evidence that the requirements of NAO 207-12 have been complied with.
- Escorts – The Chief Scientist is responsible to provide escorts to comply with NAO 207-12 Section 5.10, or as required by the vessel's DOC/OSY Regional Security Officer.
- Ensure all non-foreign national members of the scientific party receive the briefing on Espionage Indicators (NAO 207-12 Appendix A) at least annually or as required by the servicing Regional Security Officer.
- Export Control - Ensure that approved controls are in place for any technologies that are subject to Export Administration Regulations (EAR).

The Commanding Officer and the Chief Scientist will work together to implement any access controls necessary to ensure no unlicensed export occurs of any controlled technology onboard regardless of ownership.

Responsibilities of the Commanding Officer:

1. Ensure only those foreign nationals with DOC/OSY clearance are granted access.
2. Deny access to OMAO platforms and facilities by foreign nationals from countries controlled for anti-terrorism (AT) reasons and individuals from Cuba or Iran without written NMAO approval and compliance with export and sanction regulations.
3. Ensure foreign national access is permitted only if unlicensed deemed export is not likely to occur.
4. Ensure receipt from the Chief Scientist or the DSN of the FRNS e-mail granting approval for the foreign national guest's visit.
5. Ensure Foreign Port Officials, e.g., Pilots, immigration officials, receive escorted access in accordance with maritime custom to facilitate the vessel's visit to foreign ports.
6. Export Control - 8 weeks in advance of the project, provide the Chief Scientist with a current inventory of OMAO controlled technology onboard the vessel and a copy of the vessel Technology Access Control Plan (TACP). Also notify the Chief Scientist of any OMAO-sponsored foreign nationals that will be onboard while program equipment is aboard so that the Chief Scientist can take steps to prevent unlicensed export of Program controlled technology. The Commanding Officer and the Chief Scientist will work together to implement any access controls necessary to ensure no unlicensed export occurs of any controlled technology onboard regardless of ownership.

7. Ensure all OMAO personnel onboard receive the briefing on Espionage Indicators (NAO 207-12 Appendix A) at least annually or as required by the servicing Regional Security Officer.

Responsibilities of the Foreign National Sponsor:

1. Export Control - The foreign national's sponsor is responsible for obtaining any required export licenses and complying with any conditions of those licenses prior to the foreign national being provided access to the controlled technology onboard regardless of the technology's ownership.
2. The DSN of the foreign national shall assign an on-board Program individual, who will be responsible for the foreign national while on board. The identified individual must be a U.S. citizen, NOAA (or DOC) employee. According to DOC/OSY, this requirement cannot be altered.
3. Ensure completion and submission of Appendix C (Certification of Conditions and Responsibilities for a Foreign National

Appendix I: Station list

Category	Operation	Lat			Long			Depth
Gore Point	Deploy 13GPP-36A	58	45.000	N	150	52.000	W	183
	CTD at 13GPP-36A	58	45.000	N	150	52.000	W	183
	Deploy 13GPP-34A	58	58.000	N	150	57.000	W	144
	CTD at 13GPP-34A	58	58.000	N	150	57.000	W	144
	Deploy 13GPP-32A	59	6.000	N	151	0.000	W	157
	CTD at 13GPP-32A	59	6.000	N	151	0.000	W	157
Kennedy Entrance	Deploy 13KEP-41A	59	1.000	N	151	53.000	W	191
	CTD at 13KEP-41A	59	1.000	N	151	53.000	W	191
Stevensons Pass	Deploy 13SVP-39A	58	46.000	N	152	15.000	W	120
	CTD at 13SVP-39A	58	46.000	N	152	15.000	W	120
Pavlof Bay	CTD at 12PA-1A	55	10.400	N	161	41.100	W	101
	Recover 12PA-1A	55	10.880	N	161	41.160	W	101
	Deploy 13PA-1A	55	10.900	N	161	41.200	W	101
Unimak Box	CTD - Unimak box W	54	41.260	N	166	14.210	W	292
	CTD - Unimak box W	54	34.950	N	166	7.760	W	419
	CTD - Unimak box W	54	28.310	N	166	2.330	W	538
	CTD - Unimak box W	54	21.480	N	165	55.750	W	462
	CTD - Unimak box N	54	45.070	N	166	3.050	W	224
	CTD - Unimak box N	54	48.760	N	165	51.490	W	166
	CTD - Unimak box N	54	52.100	N	165	40.270	W	145
	CTD - Unimak box N	54	55.790	N	165	28.820	W	127
	CTD - Unimak box N	54	59.190	N	165	17.190	W	117
	CTD - Unimak box N	55	2.960	N	165	6.420	W	113
	CTD - Unimak box E	54	56.230	N	164	59.730	W	93
	CTD - Unimak box E	54	49.640	N	164	53.620	W	76
	CTD - Unimak box E	54	42.930	N	164	47.050	W	48
	CTD - Unimak box S	54	26.460	N	164	59.110	W	48
	CTD - Unimak box S	54	25.160	N	165	8.430	W	136
	CTD - Unimak box S	54	22.490	N	165	16.630	W	168
	CTD - Unimak box S	54	20.510	N	165	25.730	W	153
Holloweds drifters	Drifter deployment, 40 m	55	57.310	N	165	4.810	W	
	Drifter deployment, 20 m	55	57.690	N	165	4.130	W	
	Drifter deployment, 40 m	56	2.690	N	165	4.820	W	
	Drifter deployment, 20 m	56	3.070	N	165	4.140	W	

	Drifter deployment, 20 m	56	3.090	N	164	54.500	W	
	Drifter deployment, 40 m	56	2.690	N	164	55.180	W	
	Drifter deployment, 20 m	56	0.380	N	164	59.320	W	
	Drifter deployment, 40 m	56	0.000	N	165	0.000	W	
	Drifter deployment, 20 m	55	57.690	N	164	54.510	W	
	Drifter deployment, 40 m	55	57.310	N	164	55.190	W	
Bering Sea site 2	CTD - site 2	56	51.800	N	164	2.500	W	72
	Recover 12BS-2C	56	52.081	N	164	3.358	W	74
	Recover 12BSP-2B	56	51.941	N	164	3.440	W	74
	Deploy 13BSM-2A	56	52.000	N	164	3.000	W	74
	Deploy 13BSP-2A	56	52.000	N	164	3.000	W	74
	Bongo - site 2	56	51.700	N	164	3.100	W	72
	CalVET (triplicate) - site 2	56	51.700	N	164	3.100	W	72
	CTD - site 2	56	51.700	N	164	3.100	W	72
box around site 2	CTD/bongo - site 2/south	56	40.000	N	163	52.000	W	72
	CTD/bongo - site 2/west	56	46.000	N	164	20.000	W	75
	CTD/bongo - site 2/east	56	56.500	N	163	50.010	W	69
	CTD/bongo - site 2/north	57	1.000	N	164	13.000	W	69
70 m isobath	CTD/BON	56	41.000	N	164	35.000	W	68
	CTD	56	54.560	N	164	49.650	W	67
	CTD/BON	56	51.540	N	165	7.370	W	68
	CTD	56	59.610	N	165	22.650	W	67
	CTD/BON	57	6.400	N	165	36.800	W	65
	CTD	57	15.730	N	165	44.830	W	65
	CTD/BON	57	19.260	N	166	0.670	W	65
	CTD	57	19.340	N	166	19.580	W	65
	CTD/BON	57	26.280	N	166	30.750	W	65
	CTD	57	25.720	N	166	48.720	W	65
	CTD/BON	57	31.340	N	167	2.290	W	65
	CTD	57	29.960	N	167	20.650	W	66
	CTD/BON	57	30.070	N	167	39.910	W	67
	CTD	57	30.040	N	167	59.170	W	66
	CTD/BON	57	31.210	N	168	18.240	W	74
	CTD	57	31.440	N	168	36.810	W	73
N. of 4	CTD/BON	57	54.420	N	169	30.000	W	65
Only do if clear	CTD	58	2.530	N	169	40.350	W	64
of ice	CTD/BON	58	8.830	N	169	55.090	W	66
	CTD	58	16.920	N	170	5.680	W	67
	CTD/BON	58	26.770	N	170	11.140	W	68

	CTD	58	37.020	N	170	16.530	W	67
	CTD/BON	58	46.460	N	170	17.620	W	66
	CTD	58	56.900	N	170	19.640	W	67
	CTD/BON	59	6.410	N	170	14.810	W	64
	CTD	59	14.820	N	170	24.730	W	63
	CTD/BON	59	20.120	N	170	39.350	W	65
	CTD	59	26.140	N	170	54.360	W	81
	CTD/BON	59	35.700	N	170	55.370	W	80
	CTD	59	42.930	N	171	8.390	W	79
	CTD/BON	59	46.620	N	171	26.980	W	78
Bering Sea site 4	CTD - site 4	57	50.700	N	168	52.500	W	72
	Recover 12BS-4B	57	51.982	N	168	53.052	W	72
	Recover 12BSP-4B	57	52.018	N	168	52.348	W	72
	Deploy 13BS-4A	57	52.000	N	168	52.000	W	72
	Deploy 13BSP-4A	57	52.000	N	168	52.000	W	72
	CTD - site 4	57	50.700	N	168	52.300	W	72
	Bongo - site 4	57	50.700	N	168	52.300	W	72
	CalVET (triplicate) - site 4	57	50.700	N	168	52.300	W	72
	CTD/bongo - site 4/south	57	39.200	N	169	1.200	W	71
	CTD/bongo - site 4/east	57	46.000	N	168	28.000	W	71
	CTD/bongo - site 4/north	58	4.000	N	168	43.800	W	71
	CTD/bongo - site 4/west	57	55.600	N	169	19.300	W	71
Dog-Leg	CTD	53	54.500	N	166	30.900	W	69
	CTD	53	22.000	N	168	42.000	W	340
	CTD	53	31.000	N	168	55.000	W	1500
	CTD	53	36.000	N	169	4.000	W	1800
	CTD	53	47.000	N	169	16.000	W	1575
	CTD	54	2.000	N	169	34.000	W	1850
	CTD	54	20.000	N	169	50.000	W	1900
	CTD	54	40.000	N	169	12.000	W	985
	CTD	54	58.000	N	168	45.000	W	300
	CTD	55	7.000	N	168	29.000	W	1000
	CTD - Shelf Break (1000m) DEPTH DEPENDENT	55	20.500	N	168	15.200	W	1000
	CTD - Shelf Break (500m) DEPTH DEPENDENT	55	22.300	N	168	10.500	W	500
	CTD - Shelf Break (200m) DEPTH DEPENDENT	55	25.700	N	168	4.400	W	200
	CTD - Outer Shelf Domain	55	33.000	N	167	46.000	W	120
	CTD - Outer Shelf Domain	55	39.000	N	167	30.020	W	120

	CTD - Outer Shelf Domain	55	46.000	N	167	10.000	W	120
	CTD - Outer Shelf Domain	55	54.000	N	166	54.000	W	120
	CTD - site 3	56	2.940	N	166	20.300	W	120
	CTD - Cross-shelf	56	16.480	N	165	46.320	W	96
	CTD - Cross-shelf	56	23.540	N	165	23.170	W	89
	CTD - Cross-shelf	56	30.630	N	165	0.000	W	81
	CTD - Cross-shelf	56	37.820	N	164	36.000	W	79
	CTD - Cross-shelf	56	46.000	N	164	20.000	W	75