

UNITED STATES DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration NOAA Marine and Aviation Operations Marine Operations Center 439 W. York Street Norfolk, VA 23510-1114



MEMORANDUM FOR: Lieutenant Commander Jeffrey Shoup, NOAA

Commanding Officer, NOAA Ship Nancy Foster

FROM:

Captain Anne K. Lynch, NOAA

Commanding Officer, NOAA Marine Operations Center-Atlantic

SUBJECT:

Project Instruction for NF-15-01

Essential Fish Habitat- Caribbean

Attached is the final Project Instruction for NF-15-01, Mapping Essential Fish Habitat in the US Caribbean to Inform MPA, which is scheduled aboard NOAA Ship *Nancy Foster* during the period of 18 March to 7 April, 2014. Of the 19 DAS scheduled for this project, 18 days are funded by Line Office Allocation and 1 DAS is Program Funded. This project is estimated to exhibit a Medium Operational Tempo. Acknowledge receipt of these instructions via e-mail to OpsMgr.MOA@noaa.gov at Marine Operations Center-Atlantic.

Attachment

cc:

MOA1





U.S. DEPARTMENT OF COMMERCE National Oceanic and Atmospheric Administration NATIONAL OCEAN SERVICE NATIONAL CENTERS FOR COASTAL OCEAN SCIENCE

CENTER FOR COASTAL MONITORING AND ASSESSMENT 1305 East West Highway N/SCI1, 9th Floor Silver Spring, MD 20910

FINAL Project Instructions

Date	Subm	itted:
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March 3, 2015

Platform:

NOAA Ship Nancy Foster

Project Number:

NF-15-01 (OMAO)

Project Title:

Mapping Essential Fish habitat in the US Caribbean to Inform MPA

Management

Project Dates:

March 18, 2015 to April 07, 2015

Prepared by:

Chief Scientist

Center for Coastal Monitoring and Assessment

Approved by Mark E. Won

Dr. Mark E. Monaco

Director

Center for Coastal Monitoring and Assessment

Approved by:

Mary Erickson

Director

National Centers for Coastal Ocean Science

Approved by:

Captain Anne K. Lynch, NOAA

Commanding Officer

Marine Operations Center - Atlantic

I. Overview

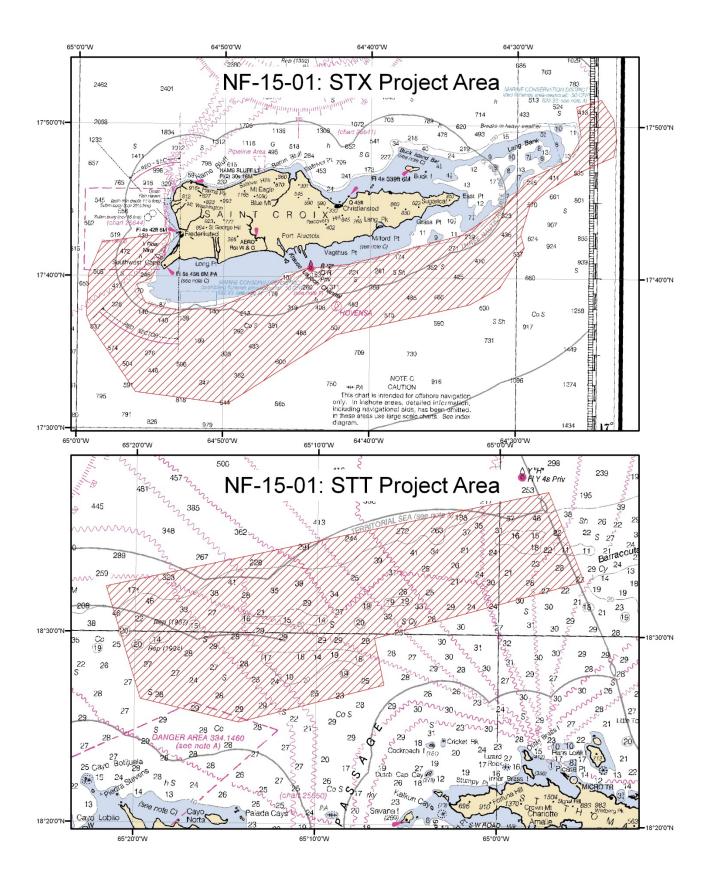
A. Brief Summary and Project Period

The Center for Coastal Monitoring and Assessment (CCMA) will be conducting the tenth year of an ongoing scientific research mission onboard NOAA Ship *Nancy Foster* funded by NOAA's Coral Reef Conservation Program. The purpose of the cruise will be to collect swath bathymetry, acoustical backscatter, ROV optical validation, fishery acoustics, and Slocum Glider deployments within coastal waters of St. Croix and St. Thomas, USVI.

B. Days at Sea (DAS)

Of the <u>19</u> DAS scheduled for this project, <u>0</u> DAS are funded by an OMAO allocation, <u>18</u> DAS are funded by a Line Office Allocation, <u>1</u> DAS are Program Funded, and <u>0</u> DAS are Other Agency funded. This project is estimated to exhibit a <u>Medium</u> Operational Tempo.

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



D. Summary of Objectives

Scientists will collect high resolution multibeam and acoustic fisheries data in mid-water depths *approximately* 10 to 2000 meters so as to continue to characterize seafloor habitats within all U.S. States, Territories, and Commonwealths. The objective of this project is to collect a multibeam bathymetry dataset with 100% seafloor ensonification, along with multibeam backscatter suitable for seafloor characterization. Fishery acoustics data will be collected to characterize broad-scale fish abundance, biomass, and utilization patterns, as well as to locate and document fish spawning aggregations. Multibeam data will be collected to conform to IHO Order 1 (<100m) and Order 2 (>100m) accuracy standards. The strategies developed for each survey area will take into account the minimum depths, general bathymetry, and time allotment. The delineation and identification of seafloor habitats will be assisted by the use of a moderate-depth Remotely Operated Vehicle (ROV). The vehicle has video and frame camera capability to depths of 300 meters and will be used for transect sampling within areas mapped during this mission. Two Slocum Glider G2 will be deployed during the duration of the project to collect oceanographic data and passive fish acoustics in the study region.

E. Participating Institutions

NOAA (NCCOS, OCS, CRCP), University of North Carolina at Wilmington-NURC, University of Virgin Islands, Solmar Hydro, and students from academic institutions.

F. Personnel/Science Party: name, title, gender, affiliation, and nationality

Name (Last, First)	Title	Date	Date	Gender	Affiliation	Nationality
		Aboard	Disembark			
Battista, Tim	Oceanographer	3/26/15	4/08/15	Male	NOAA	U.S.
Campanella, Fabio	Fishery Sci	3/27/15	4/08/15	Male	Academic	Italy
Costa, Bryan	Physical Sci.	3/27/15	4/01/15	Male	NOAA	U.S.
Horn, Lance	ROV Operator	3/25/15	4/08/15	Male	Contractor	U.S.
Irwin, Leslie	Communications	3/26/15	4/08/15	Female	NOAA	U.S.
Kitch, Troy	Communications	3/26/15	4/08/15	Male	NOAA	U.S.
McElroy, Ryan	Research Asst.	3/27/15	4/08/15	Male	Academic	U.S.
Sautter, Will	Physical Sci.	3/26/15	4/08/15	Male	NOAA	U.S.
Stecher, Mike	Hydrographer	3/26/15	4/08/15	Male	Contractor	U.S.
Taylor, Chris	Fishery Sci	3/26/15	4/08/15	Male	NOAA	U.S.
Westerveld, Levi	Research Asst.	3/27/15	4/08/15	Male	Academic	Netherlands
White, Jason	ROV Operator	3/25/15	4/08/15	Male	Contractor	U.S.
Wilson, Matt	Physical Sci.	3/26/15	4/08/15	Male	NOAA	U.S.
Wooden, Eric	Fishery Sci	3/27/15	4/08/15	Male	USVI	U.S.

Template Date: 01JAN2015

G. Administrative

1. Points of Contacts:

Chief Scientist: Tim Battista, 1305 East West Hwy, Silver Spring, MD 20910, 301-713-3028 x171, tim.battista@noaa.gov

Nancy Foster Operations Officer: LT Lyndsey Davis, 1050 Register St., North Charleston, SC 29405, 843-991-6326, ops.nancy.foster@noaa.gov

NAVO Glider Operations: Jerry Townsend, N633 Physical Oceanography Support Branch Bldg 1032 RM 1032 Stennis Space Center, MS 39522-5001, 228-688-5439, jerry.townsend@navy.mil

2. Diplomatic Clearances

None Required.

3. Licenses and Permits

None Required.

II. Operations

The Chief Scientist is responsible for ensuring the scientific staff are trained in planned operations and are knowledgeable of project objectives and priorities. The Commanding Officer is responsible for ensuring all operations conform to the ship's accepted practices and procedures.

A. Project Itinerary:

Actual survey and ground truthing locations will be made available to the Operations Officer during the daily operations meeting. Fisheries acoustics via the Simrad EK60 Suite will occur during all shifts (MBES Survey and Ground Truthing). Glider deployment and retrieval locations will be determined in consultation with Operations Officer. Glider #001 will be deployed by the *Okeanus Explorer* on approximately 27FEB 2015. *Standby ROV operations are defined as - the deployment of the ROV at any time during the time noted in Section II.C with advance communication of intention and approval from the ship Command. Standby operations could include day and night time ROV deployment, operations, and recovery. ROV operations during standby are intended to provide visual observations of fish aggregations if and when detected during fishery acoustic surveys.

B. Staging and Destaging:

ROV and AUV gear will have been loaded on the vessel in Charleston before departing for USVI (17MAR2015). ROV equipment will be offloaded 08APR2015 (PM) in St. Thomas for transport back to the US by cargo vessel. The Glider (#002) will be retrieved during NF-15-02 Leg 2 (PI Ryan Smith) on or about 14APR2015 and stowed until returning to Key West, FL (07JUN2015). Freight transport will be arranged for shipping the Glider to NAVO.

C. Operations to be Conducted:

18 March (Wednesday) to **25 March** (Wednesday): NOAA Ship *Nancy Foster* transit from Charleston, SC to Charlotte Amalie, USVI.

26 March (**Thursday**): NOAA Ship *Nancy Foster* berthed Charlotte Amalie, USVI.

Science: Science advance team arrives.

27 March (Friday): NOAA Ship *Nancy Foster* berthed in Charlotte Amalie, USVI

Kids Event: (0830-1130). Get Reef Smart! Kids Day run by science party and a brief ship tour (30 visitors).

Science: Remaining science team arrives. Welcome aboard meeting with Operations Officer All scientists, OODs, survey techs, deck personnel: Operational briefing and Risk Management discussion.

Glider: (1300-1400). Scientists ready Glider and conduct system checks.

28 March (Saturday):

Transit: (1000-1400). Transit to STX.

Glider: (1400-1500). Deploy Glider #002 in STX area from ship. Coordinates TBD.

Survey NF: (1500-2400). MBES and FA STX area.

29 March (Sunday) to 30 March (Monday):

Survey NF: (2400-0800). MBES and FA STX area.

GT: (0800-1600). Conduct ground truthing of STX with ROV.

Survey NF: (1600-2400). MBES and FA STX area.

31 March (Tuesday):

Survey NF: (2400-1500). MBES and FA STX West.

GT: (0800-1600). Conduct ground truthing of STX with ROV.

Survey NF: (1600-1900). MBES and FA STX Area.

Transit: (1900-2400). Transit to STT.

01 April (Wednesday) to 03 April (Friday):

Survey NF: (2400-0800). MBES and FA STT area.

GT: (0800-1600). Conduct ground truthing of STT with ROV.

Survey NF: (1600-2400). MBES and FA STT Area.

04 April (Saturday):

Fish Acoustics: (2400-2400). Conduct Fish Acoustics of STT. ROV on standby* for possible deployment during this time period. Also includes Fishery Acoustics calibration.

05 April (Sunday) to 06 April (Monday):

Survey NF: (2400-0800). MBES and FA STT area.

GT: (0800-1600). Conduct ground truthing of STT with ROV.

Survey NF: (1600-2400). MBES and FA STT Area.

07 April (Tuesday):

Survey NF: (2400-0800). MBES and FA STT area.

Glider: (0800-0900). Recover Glider #001 in STT area from small boat.

Survey NF: (0900-1300). MBES and FA STT area.

Transit: (1300-1600). Ship transit from STT to Charlotte Amalie, USVI.

08 April (Wednesday): In-Port Ship Rest Day

Managers Event: (0900-1100). Briefing event with local managers run by science party and a brief ship tour (30 visitors).

Science: (1300-1400). Offload ROV container. Science party departs

D. Dive Plan

All dives are to be conducted in accordance with the requirements and regulations of the NOAA Diving Program (http://www.ndc.noaa.gov/dr.html) and require the approval of the ship's Commanding Officer.

Dives are not planned for this project.

E. Applicable Restrictions

Conditions which preclude normal operations: Equipment failure: Mitigation - at sea repair, switch to alternate multibeam or operations.

Poor weather: Mitigation – switch to more protected area or suspend operations.

Safety concerns: Mitigation – discuss as safety briefing or with ships command.

III. Equipment

- A. Equipment and Capabilities provided by the ship (itemized)
- 1) Hand held radios for communication between bridge and deck.
- 2) uCTD, and deployable CTD's 100m and 2000 m depth rating.
- 3) EM 710 and Reson Seabat 7125 Multibeam, and Kongsberg Split-beam EK-60.
- 4) Dynamic Positioning System.
- 5) Small boat for Glider deployment and recovery.
- B. Equipment and Capabilities provided by the scientists (itemized)
- 1) Mohawk ROV
- 2) USBL Underwater tracking system and hydrophone pole
- 3) Five high end laptops.
- 4) CARIS, ArcGIS, Hypack/Hysweep, FMGT
- 5) (2) Slocum Glider G2

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 quantity, MSDS, appropriate spill cleanup materials (neutralizing agents, buffers, or absorbents) in amounts adequate to address spills of a size equal to the amount of chemical brought aboard, and chemical safety and spill response procedures. Documentation regarding those requirements will be provided by the Chief of Operations, Marine Operations Center, upon request.

Per OMAO procedure, the scientific party will include with their project instructions and provide to the CO of the respective ship 30 days before departure:

- List of chemicals by name with anticipated quantity
- List of spill response materials, including neutralizing agents, buffers, and absorbents
- Chemical safety and spill response procedures, such as excerpts of the program's Chemical Hygiene Plan or SOPs relevant for shipboard laboratories
- For bulk quantities of chemicals in excess of 50 gallons total or in containers larger than 10 gallons each, notify ship's Operations Officer regarding quantity, packaging and chemical to verify safe stowage is available as soon as chemical quantities are known.

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
- Confirmation that chemical safety and spill response procedures were brought aboard

Upon departure from the ship, scientific parties will provide the CO or their designee an inventory showing that all chemicals were 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 hazardous materials is not permitted aboard NOAA ships.

B. Inventory

- 1) The Slocum Glider G2 contains 21KG of Lithium/Sulfuryl Chloride, (Li/SO₂Cl₂) battery packs. The battery packs are manufactured by Eectrochem Corporation, which are built around the CSC93DD base cell.
- C. Chemical safety and spill response procedures
- 1) Lithium/Sulfuryl Chloride, (Li/SO₂Cl₂) battery packs (follows):

Rescue of Injured Personnel

- 1. Never enter an enclosed space were a person is believed to be incapacitated or injured due to inhalation of a toxic gas or fumes. Responders should be equipped with a self-contained breathing apparatus.
- 2. The chemical reaction between SOCl₂ and H₂O results in the formation of SO₂ and HCl gases. Exposure to acidic gases is a potential hazard for personnel responding to a battery fire. This is especially the case if sprinklers are activated in the storage area. Responders should be equipped with a self-contained breathing apparatus.
- 3. During cook-off, components of individual cells, the battery pack, or the glider could be emitted as projectiles with sufficient energy to be fatal.
- 4. The MSDS should be consulted for recommend decontamination and medical treatment of injured personnel.

Glider casualty in storage

For casualty of a glider in storage the primary concern should be getting the glider on deck and jettisoning it as soon as possible. Common indicators of a problem would be strong chemical odors in the storage area, a cloud of white smoke, or evidence of heating.

- 1. Immediately evacuate the space and evaluate the suspected gliders with a thermal imaging devise at a distance to determine if and which glider is affected. Stand away from the potential off gas points, which are the port side of the LBSG glider and the aft section of the Seaglider.
- 2. If a problem is evident, secure ventilation, and close all doors leading into the staging bay.
- 3. The response team should be equipped with SCBAs
- 4. Standard procedures utilizing water should be used as the immediate response to a glider related fire in the staging bay to aid the overhead sprinkler system, cool the affected glider and surrounding area to prevent spread of the fire.
- 5. It is recommended that a severely damaged glider be jettisoned after and resulting fire has been extinguished, and it is established that it is safe to approach. As depicted in Table 1, the glider contains three separate battery packs, and depending on the magnitude of the first event, the potential follow-on events exist.

Glider casualty on deck

It is likely that any force large enough to dislodge the batteries from their mounting inside the glider will cause the glider to come apart. However, caution should be used when approaching a glider that has been dropped on deck. The following recommendations should be observed.

- 1. Never approach the glider immediately after an impact. Always stand back and assess the situation before approaching.
- 2. The deck should be evacuated of non-essential personnel. Remaining personnel should take up a position at least 30 ft away and downwind of the glider. When possible the ship should be repositioned such that any emitted gasses will be blown away from ventilation intakes.
- 3. When possible, the maintenance laptop should be used to determine if the glider is functional and read the internal temperature and pressure.
- 4. A thermal imaging scope or other remote temperature indicator should be used to look for elevated temperatures on the surface of the glider.
- 5. Be aware of any hissing sounds which may indicate the glider is off gassing through the pressure relief valve or venting mechanism.

- 6. After it has been determined that it is safe to approach the glider. A full operational check out needs to be conducted. This process will move the mass shifter within the glider battery pack and determine if the internal mounting is intact.
 - a. For LBSG gliders maintain or establish communications with the laptop and run wiggle.
- 7. If the glider is not intact, observe the battery pack or forward / aft sections for several minutes to determine if it is safe to approach the glider. Use of a thermal imaging device is recommended if possible.
- 8. If it is determined that the batteries are unsafe, jettison the gliders as necessary.
 - a. If the deployment / retrieval line is intact, this can be used to pull the glider into the water.
 - b. The glider weighs approximately 130 lbs. High pressure water could potentially be used to wash the glider or parts of the glider off deck.
 - c. As a last resort, a non-conductive pole, or DC lumber of sufficient length could be used to push the glider off deck.
 - d. Ensure the glider sinks if it is jettisoned.
- 9. If it is established that the glider is safe, move it to a secure area. The SNR or Lead ET should contact the GOC 228 688 5877 for further disposition and appropriate contacts at NAVOCEANO. Further testing will have to be done to determine if the glider can be deployed or can be safely shipped back to NAVOCEANO.
 - D. Radioactive Materials

No Radioactive Isotopes are planned for this project.

V. Additional Projects

A. Supplementary ("Piggyback") Projects

See Addendum 1.

B. NOAA Fleet Ancillary Projects

No NOAA Fleet Ancillary Projects are planned.

VI. Disposition of Data and Reports

Disposition of data gathered aboard NOAA ships will conform to NAO 216-101 *Ocean Data Acquisitions* and NAO 212-15 *Management of Environmental Data and Information*. To guide the implementation of these NAOs, NOAA's Environmental Data Management Committee (EDMC) provides the *NOAA Data Documentation Procedural Directive* (data documentation) and *NOAA Data Management Planning Procedural Directive* (preparation of Data Management Plans). OMAO is developing procedures and allocating resources to manage OMAO data and Programs are encouraged to do the same for their Project data.

A. Data Classifications: *Under Development*

a. OMAO Data

b. Program Data

B. Responsibilities:

We request that the Ship's data storage be made available during the cruise to store all digital data (~ 3 TB). The science party will transfer that data from the Ship storage to scientist drives during the mid-cruise in-port and at the end of the cruise. The scientists will be responsible for providing data archives to NGDC and AHB as part of R2R within 12 months of the completion of the cruise. In order for this to be accomplished five scientist Government computers will need network access to the ship's data storage device so that the data can be moved from the acquisition computer to storage, and subsequently accessed by other Government computers tasked with data post-processing. The Chief Scientist will be provided a Full Local Administrative account for each of these computers to assist the Ship's ET in adding them to the Ship's network.

VII. Meetings, Vessel Familiarization, and Project Evaluations

- A. <u>Pre-Project Meeting</u>: The Chief Scientist and Commanding Officer will conduct a meeting of pertinent members of the scientific party and ship's crew to discuss required equipment, planned operations, concerns, and establish mitigation strategies for all concerns. This meeting shall be conducted before the beginning of the project with sufficient time to allow for preparation of the ship and project personnel. The ship's Operations Officer usually is delegated to assist the Chief Scientist in arranging this meeting.
- B. <u>Vessel Familiarization Meeting</u>: The Commanding Officer is responsible for ensuring scientific personnel are familiarized with applicable sections of the standing orders and vessel protocols, e.g., meals, watches, etiquette, drills, etc. A vessel familiarization meeting shall be conducted in the first 24 hours of the project's start and is normally presented by the ship's Operations Officer.
- C. <u>Post-Project Meeting</u>: The Commanding Officer is responsible for conducted a meeting no earlier than 24 hrs before or 7 days after the completion of a project to discuss the overall success and short comings of the project. Concerns regarding safety, efficiency, and suggestions for future improvements shall be discussed and mitigations for future projects will be documented for future use. This meeting shall be attended by the ship's officers, applicable crew, the Chief Scientist, and members of the scientific party and is normally arranged by the Operations Officer and Chief Scientist.

D. Project Evaluation Report

Within seven days of the completion of the project, a Customer Satisfaction Survey is to be completed by the Chief Scientist. The form is available at http://www.omao.noaa.gov/fleeteval.html and provides a "Submit" button at the end of the form. Submitted form data is deposited into a spreadsheet used by

OMAO management to analyze the information. Though the complete form is not shared with the ships', specific concerns and praises are followed up on while not divulging the identity of the evaluator.

VIII. 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 project.

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 17, 2000 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, NF 57-10-01 (3-14)) 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.

All NHSQs submitted after March 1, 2014 must be accompanied by NOAA Form (NF) 57-10-02 - Tuberculosis Screening Document in compliance with OMAO Policy 1008 (Tuberculosis Protection Program).

The completed forms should be sent to the Regional Director of Health Services at the applicable Marine Operations Center. The NHSQ and Tuberculosis Screening Document should reach the Health Services Office no later than 4 weeks prior to the start of the project to allow time for the participant to obtain and submit additional information should health services require it, before clearance to sail can be granted. Please contact MOC Health Services with any questions regarding eligibility or completion of either form. Ensure to fully complete each 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.

The participant can mail, fax, or email the forms to the contact information below. Participants should take precautions to protect their Personally Identifiable Information (PII) and medical information and ensure all correspondence adheres to DOC guidance (http://ocio.os.doc.gov/ITPolicyandPrograms/IT_Privacy/PROD01_008240).

The only secure email process approved by NOAA is <u>Accellion Secure File Transfer</u> which requires the sender to setup an account. <u>Accellion's Web Users Guide</u> is a valuable aid in using this service, however to reduce cost the DOC contract doesn't provide for automatically issuing full functioning accounts. To receive access to a "Send Tab", after your Accellion account has been established send an email from the associated email account to accellion Alerts@doc.gov requesting access to the "Send Tab" function. They will notify you via email usually within 1 business day of your approval. The 'Send Tab" function will be accessible for 30 days.

Contact information:

Regional Director of Health Services
Marine Operations Center – Atlantic
439 W. York Street
Norfolk, VA 23510
Telephone 757-441-6320
Fax 757-441-3760
Email MOA.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

Hard hats are 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.

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. At the discretion of the ship CO, safety shoes (i.e. steel or composite toe protection) may be required to participate in any work dealing with suspended loads, including CTD deployment and recovery. The ship does not

provide safety-toed shoes/boots. The ship's Operations Officer should be consulted by the Chief Scientist to ensure members of the scientific party report aboard with the proper attire.

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 email 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 and it must be arranged through the ship's Commanding Officer at least 30 days in advance.

E. IT Security

Any computer that will be hooked into the ship's network must comply with the *OMAO 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 the above 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 (FNRS) 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 Line Office Deemed Export 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 but also for any Federal Facility access (NOAA Marine Operations Centers, NOAA port offices, USCG Bases) that foreign nationals might have to traverse to gain 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 email generated by the Servicing Security
 Office granting approval for the foreign national guest's visit. (For NMFS-sponsored
 guests, this email will be transmitted by FNRS.) This email will identify the guest's DSN
 and will serve as evidence that the requirements of NAO 207-12 have been complied
 with.
- 2. 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.
- 3. 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 Security Office.
- 4. 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 approval from the Director of the Office of Marine and Aviation Operations 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 FNRS or Servicing Security Office email 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 Security Office.

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 and a 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

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Addendum 1 to NF-1-5-01

Template Date: 01JAN2015

I. Overview

A. Brief Summary and Project Period

The goal of the mooring deployment is to characterize water masses (e.g., temperature, salinity, nutrients, and currents) and particulate flux in the Anegada Passage, the only intermediate water passage into the Caribbean Sea. This deployment is a major part of the larger NOAA OER funded project to investigate the geology and biology of largely unexplored seamounts in the Anegada Passage.

B. Days at Sea (DAS)

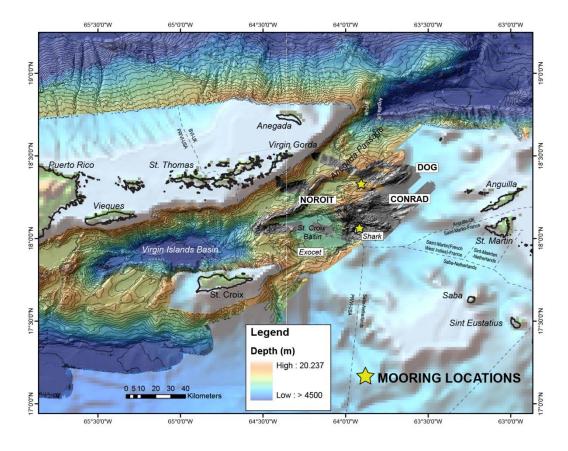
Of the <u>8</u> DAS scheduled for this project during the NF-15-01 transit from Charleston, SC to Charlotte Amalie, USVI, <u>0</u> DAS are funded by an OMAO allocation, <u>7</u> DAS are funded by a Line Office Allocation, <u>1</u> DAS are Program Funded, and <u>0</u> DAS are Other Agency funded. This project is estimated to exhibit a <u>Medium</u> Operational Tempo.

Depart Charleston, SC March 18, Arrive Charlotte Amalie, USVI March 25

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

Mooring 1: 18° 08.241'N, 63° 58.127'W (depth: 1,596 m)

Mooring 2: 18° 19.834'N, 63° 51.420'W (depth: 1,155 m)



D. Summary of Objectives

The primary objective of the proposed work is to characterize water masses (e.g., temperature, salinity, dissolved oxygen, nutrients, currents) and particulate flux in the only intermediate water passage into the Caribbean. In order to do this, we are requesting to deploy two (2) seafloor moorings consisting of a Honjo sediment trap with 13-rotating cups, an acoustic doppler current profiler, and a Microcat conductivity and temperature instrument. These long-term measurements will help characterize the hydrodynamic variability in the habitats examined. The deployment and recovery of the deep-sea moorings will follow protocols developed by the PIs for deep-sea studies in the Gulf of Mexico and Mid-Atlantic. Sediment trap samples (~ 27 day sampling interval) will be processed for 210Pb, bulk density, grain-size and constituent analysis (e.g., % organic carbon, stable isotopes, pigments), and ADCP, salinity and temperature data will be analyzed to provide monthly measurements of the oceanographic environment. Taken together, this suite of sensors and automated time-series sediment trap will allow us to begin to understand the transport, fate, and source of nutrients, and trace metals to the seamounts and basins in the Anegada Passage. Given that very little is known about the deep-circulation in the Caribbean Sea, these deployments will provide an unprecedented opportunity to obtain continuous, high-resolution data from this region and to examine multiple questions regarding processes in the region and their links to faunal habitat characteristics and associations.

E. Participating Institutions

U.S. Geological Survey NOAA Temple University Woods Hole Oceanographic Institution

- F. Personnel/Science Party: name, title, gender, affiliation, and nationality
 - 1. Jonathan Borden, Electronics Technician, Male, USGS, USA

Electronics Technician

U.S. Geological Survey Coastal Marine Program Woods Hole, MA (508) 457-2336, jborden@usgs.gov

2. Sandy Brosnahan, Technician, Female, USGS, USA

U.S. Geological Survey Coastal Marine Program Woods Hole, MA 508-457-2265, sbrosnahan@usgs.gov

G. Administrative

1. Points of Contacts:

Lead POC or Principle Investigator (PI & Affiliation)

Amanda Demopoulos U.S. Geological Survey Southeast Ecological Science Center 7920 NW 71st St. Gainesville, FL 32653

Office Phone: 352-264-3490 ademopoulos@usgs.gov

Supporting Team Member Jason Chaytor USGS Woods Hole Coastal and Marine Science Center 384 Woods Hole Road Woods Hole, MA 02543-1598 Phone: (508) 457-2351

Phone: (508) 457-235 jchaytor@usgs.gov

2. Diplomatic Clearances

Permits from the British Virgin Islands for seafloor instrument installation.

3. Licenses and Permits

See above.

II. Operations

The Chief Scientist is responsible for ensuring the scientific staff are trained in planned operations and are knowledgeable of project objectives and priorities. The Commanding Officer is responsible for ensuring all operations conform to the ship's accepted practices and procedures.

A. Project Itinerary:

Once on station, deploy CTD to 1500 m, trip 4 bottles at 1500 m and 4 bottles at 1100m, then finish cast and recover CTD.

Sensors requested: DO, turbidity sensor, fluorometer, conductivity, temperature, depth sensors.

Minimum ship requirements;

600 square feet of aft deck space for storage and work area

Stern A- Frame with 12 feet deck clearance

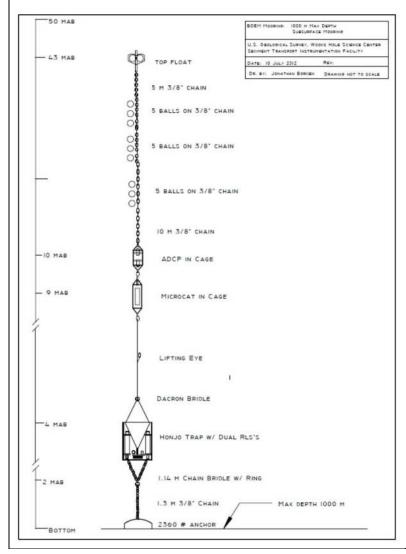
Winch with access to Stern frame, 3/8" to 1/2" wire, 4000 + meters *

Crane with reach over stern or aft quarter

Block able to pass a 3/4" anchor shackle

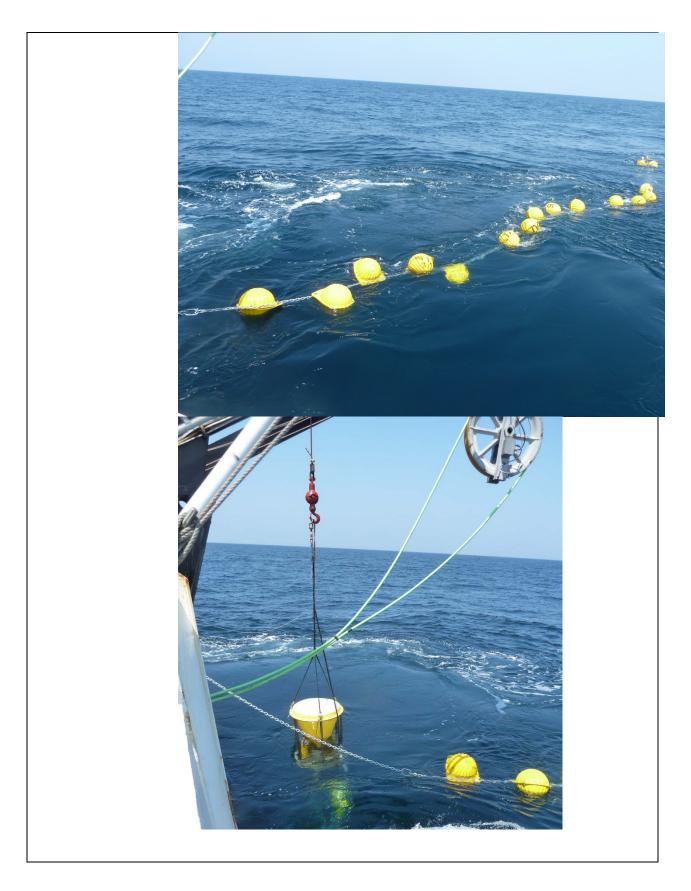
There are two possible deployment methods. The preferred would be an anchor first deployment, where the mooring is built up as it goes in the water, starting with the anchor. If a winch with sufficient wire is available and a deployment release is used

(USGS will bring one), the entire mooring would be winched down to approximately 50 meters off the bottom and released. This method is preferred to keep the Honjo upright at all times. The top portion of the mooring from the Top Float to the Microcat cage are assembled and deployed thru the A-frame in sections. This portion is stoppered off. Then the anchor and 1.3m of chain are deployed thru the A-frame, the Honjo trap is attached to the anchor chain and then picked up by its lifting eye and deployed thru the A-frame. The Honjo bridle is attached to the bottom of the Microcat



cage, this section is slipped until it is drifting free, aft of the ship. The Honjo/Anchor portion is then released via a quick release (USGS supplied) when over the launch site. This basic method can also be used with just a crane over the side, except each portion of the mooring will be lifted and attached individually at the rail and deployed straight up and down.

If the ship does not have the available wire, then the mooring will be released on the surface (see images below). For this method, the top float is deployed first (as above), each section of the mooring is streamed aft. Then the Honjo trap is attached to the anchor chain and both the Honjo and anchor are lifted at lifting eye on the bridle. These pieces are attached to the wire on a quick release and deployed over the site. Once over the drop site, the quick release is tripped and the mooring will drop straight down. As this is a relatively short mooring, fallback will only be about 20 or 30 meters.



B. Staging and Destaging:

Mooring gear will be loaded on the vessel in Charleston before departing for USVI. Gear loading on March 16 and 17, vessel departs March 18. USGS mooring equipment will require a forklift at the dock and a crane for vessel loading.

Any USGS gear will be offloaded either in Charleston or Key West depending on space available.

C. Operations to be Conducted:

On or about 24 March: NOAA Ship *Nancy Foster* on mooring deployment station for deployment of first mooring (approximately 2 hours). Conduct CTD cast to 1500 m, collect water at 1500 and 1100m (2 bottles tripped at each depth), then recover CTD. Water will be used for trap bottles. Deploy first mooring using A-frame and ships crane. Transit to second mooring location and deploy mooring (6 Hours). Order of mooring deployments at discretion of Operations Officer. Following mooring deployment, transit to Charlotte Amalie, USVI.

25 March (Wednesday): NOAA Ship *Nancy Foster* berthed Charlotte Amalie, USVI.

D. Dive Plan

All dives are to be conducted in accordance with the requirements and regulations of the NOAA Diving Program (http://www.ndc.noaa.gov/dr.html) and require the approval of the ship's Commanding Officer.

Dives are not planned for this project.

E. Applicable Restrictions

Conditions which preclude normal operations: Equipment failure: Mitigation - at sea repair, switch to alternate multibeam or operations.

Poor weather: Mitigation – switch to more protected area or suspend operations.

Safety concerns: Mitigation – discuss as safety briefing or with ships command.

III. Equipment

A. Equipment and Capabilities provided by the ship (itemized)

Differential GPS navigation and serial data output, NMEA format

Heading and water depth instruments with serial data output

Dynamic positioning

Acoustic Doppler Current Profiler (ADCP, TRDI OS150, 150 kHz, 16-350 m)

HYPACK data acquisition and navigation software

Caris HIPS/SIPS for multibeam data processing (opportunistic collection only)

CTDs: SBE 911plus with 12 bottle, 5 L 'rosette' water sampling system; SBE 19 (2), SBE 17plus, SBE 36plus with PDIM

Additional CTD sensors: SBE 43 (DO), SBE 18 (pH), Seapoint turbidity meter, Benthos altimeter (200 kHz, < 100 m)

Hydro-winch for CTD and rosette sampling system

Deck cranes

Wet and dry lab spaces and storage space

Use of 2 science berths for science crew

Deck machinery for science gear deployment and recovery

Stern-mounted articulating (hydraulic) A-frame with trawl block

Email and internet services

Networked computer printers and plotter, Scientific Computing System (SCS)

PC based workstations

Dockside crane support for all equipment during mobilization and demobilization Uncontaminated Seawater System: SBE 38 (SS temperature), SBE 21 (TSG), SBE 45 (Micro

TSG), fluorometer

At least one functioning laboratory hood

B. Equipment and Capabilities provided by the scientists (itemized)

Mooring/Trap	Units	Total wt (lbs)	
Wire cages of glass balls	4	2800	4'x3'5"x3', 700lbs each
Anchors	2	4600	3'x1'6", 2300 lbs each
Honjo traps	2	600	3'x5', 300 lbs each
Fish box	2	1000	4'x3'8"x2'7"
Release box	1	150	4'2"x1'x1'1"
Floats	2	72	4'2"x4'7", 36lbs each
microcat with cages	2	200	2'x1'x0.5'
ADCP with cages	2	100	2'x1'x0.5'

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 quantity, MSDS, appropriate spill cleanup materials (neutralizing agents, buffers, or absorbents) in amounts adequate to address spills of a size equal to the amount of chemical brought aboard, and chemical safety and spill response procedures. Documentation regarding those requirements will be provided by the Chief of Operations, Marine Operations Center, upon request.

Per OMAO procedure, the scientific party will include with their project instructions and provide to the CO of the respective ship 30 days before departure:

- List of chemicals by name with anticipated quantity
- List of spill response materials, including neutralizing agents, buffers, and absorbents
- Chemical safety and spill response procedures, such as excerpts of the program's Chemical Hygiene Plan or SOPs relevant for shipboard laboratories
- For bulk quantities of chemicals in excess of 50 gallons total or in containers larger than 10 gallons each, notify ship's Operations Officer regarding quantity, packaging and chemical to verify safe stowage is available as soon as chemical quantities are known.

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
- Confirmation that chemical safety and spill response procedures were brought aboard

Upon departure from the ship, scientific parties will provide the CO or their designee an inventory showing that all chemicals were 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 hazardous materials is not permitted aboard NOAA ships.

B. Inventory

Mercuric chloride (HgCl) Portable Hg spill kit Borax, 100%, 26 g 100%, 13g, in centrifuge tubes n/a (concentration), 1kit

D. Radioactive Materials

No Radioactive Isotopes are planned for this project.

V. Additional Projects

A. Supplementary ("Piggyback") Projects

No Supplementary Projects are planned.

B. NOAA Fleet Ancillary Projects

No NOAA Fleet Ancillary Projects are planned.

VI. Disposition of Data and Reports

Disposition of data gathered aboard NOAA ships will conform to NAO 216-101 *Ocean Data Acquisitions* and NAO 212-15 *Management of Environmental Data and Information*. To guide the implementation of these NAOs, NOAA's Environmental Data Management Committee (EDMC) provides the *NOAA Data Documentation Procedural Directive* (data documentation) and *NOAA Data Management Planning Procedural Directive* (preparation of Data Management Plans). OMAO is developing procedures and allocating resources to manage OMAO data and Programs are encouraged to do the same for their Project data.

- A. Data Classifications: *Under Development*
 - a. OMAO Data
 - b. Program Data

B. Responsibilities:

The following data products will be included in the cruise data package (recorded on appropriate media) delivered to Jonathan Borden for transfer to POC (Demopoulos):

- Marine Operations Abstracts
- CTD data (on CD's or DVD's) and CTD cast logs
- ADCP digital recordings
- Multibeam digital data (raw and processed), including bathymetry (x,y,z) data as well as backscatter (reflectivity) data on CD, DVD, or hard drive (if collected during transit)
- Marine weather observation logs
- Calibration information for ship's salinometer and thermosalinograph
- ·SCS data
- Cruise operations spreadsheet w/ actual speed/dates made good along trackline

VII. Meetings, Vessel Familiarization, and Project Evaluations

- A. <u>Pre-Project Meeting</u>: The Chief Scientist and Commanding Officer will conduct a meeting of pertinent members of the scientific party and ship's crew to discuss required equipment, planned operations, concerns, and establish mitigation strategies for all concerns. This meeting shall be conducted before the beginning of the project with sufficient time to allow for preparation of the ship and project personnel. The ship's Operations Officer usually is delegated to assist the Chief Scientist in arranging this meeting.
- B. <u>Vessel Familiarization Meeting</u>: The Commanding Officer is responsible for ensuring scientific personnel are familiarized with applicable sections of the standing orders and vessel protocols, e.g., meals, watches, etiquette, drills, etc. A vessel familiarization meeting shall be conducted in the first 24 hours of the project's start and is normally presented by the ship's Operations Officer.
- C. <u>Post-Project Meeting</u>: The Commanding Officer is responsible for conducted a meeting no earlier than 24 hrs before or 7 days after the completion of a project to discuss the overall success and short comings of the project. Concerns regarding safety, efficiency, and suggestions for future improvements shall be discussed and mitigations for future projects will be documented for future use. This meeting shall be attended by the ship's officers, applicable crew, the Chief Scientist, and members of the scientific party and is normally arranged by the Operations Officer and Chief Scientist.

D. Project Evaluation Report

Within seven days of the completion of the project, a Customer Satisfaction Survey is to be completed by the Chief Scientist. The form is available at http://www.omao.noaa.gov/fleeteval.html and provides a "Submit" button at the end of the form. Submitted form data is deposited into a spreadsheet used by OMAO management to analyze the information. Though the complete form is not shared with the ships', specific concerns and praises are followed up on while not divulging the identity of the evaluator.

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VIII. 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 project.

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 17, 2000 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, NF 57-10-01 (3-14)) 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.

All NHSQs submitted after March 1, 2014 must be accompanied by NOAA Form (NF) 57-10-02 - Tuberculosis Screening Document in compliance with OMAO Policy 1008 (Tuberculosis Protection Program).

The completed forms should be sent to the Regional Director of Health Services at the applicable Marine Operations Center. The NHSQ and Tuberculosis Screening Document should reach the Health Services Office no later than 4 weeks prior to the start of the project to allow time for the participant to obtain and submit additional information should health services require it, before clearance to sail can be granted. Please contact MOC Health Services with any questions regarding eligibility or completion of either form. Ensure to fully complete each 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.

The participant can mail, fax, or email the forms to the contact information below. Participants should take precautions to protect their Personally Identifiable Information (PII) and medical

information and ensure all correspondence adheres to DOC guidance (http://ocio.os.doc.gov/ITPolicyandPrograms/IT_Privacy/PROD01_008240).

The only secure email process approved by NOAA is <u>Accellion Secure File Transfer</u> which requires the sender to setup an account. <u>Accellion's Web Users Guide</u> is a valuable aid in using this service, however to reduce cost the DOC contract doesn't provide for automatically issuing full functioning accounts. To receive access to a "Send Tab", after your Accellion account has been established send an email from the associated email account to accellionAlerts@doc.gov requesting access to the "Send Tab" function. They will notify you via email usually within 1 business day of your approval. The 'Send Tab" function will be accessible for 30 days.

Contact information:

Regional Director of Health Services Marine Operations Center – Atlantic 439 W. York Street Norfolk, VA 23510 Telephone 757-441-6320 Fax 757-441-3760 Email MOA.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

Hard hats are 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.

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. At the discretion of the ship CO, safety shoes (i.e. steel or composite toe protection) may be required to participate in any work dealing with suspended loads, including CTD deployment and recovery. The ship does not provide safety-toed shoes/boots. The ship's Operations Officer should be consulted by the Chief Scientist to ensure members of the scientific party report aboard with the proper attire.

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 email 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 and it must be arranged through the ship's Commanding Officer at least 30 days in advance.

E. IT Security

Any computer that will be hooked into the ship's network must comply with the *OMAO 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 the above 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 (FNRS) 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 Line Office Deemed Export 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 but also for any Federal Facility access (NOAA Marine Operations Centers, NOAA port offices, USCG Bases) that foreign nationals might have to traverse to gain 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 email generated by the Servicing Security
 Office granting approval for the foreign national guest's visit. (For NMFS-sponsored
 guests, this email will be transmitted by FNRS.) This email will identify the guest's DSN
 and will serve as evidence that the requirements of NAO 207-12 have been complied
 with.
- 2. 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.
- 3. 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 Security Office.
- 4. 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 approval from the Director of the Office of Marine and Aviation Operations 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 FNRS or Servicing Security Office email 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 Security Office.

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 and a 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

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