




**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: Commander Nathan Hancock, NOAA  
Commanding Officer, NOAA Ship *Gordon Gunter*

FROM:   
Captain Anita L. Lopez, NOAA  
Commanding Officer, NOAA Marine Operations Center-Atlantic

SUBJECT: Project Instruction for GU-13-04  
Atlantic Marine Mammal Assessment Survey

Attached is the final Project Instruction for GU-13-04, Atlantic Marine Mammal Assessment Survey, which is scheduled aboard NOAA Ship *Gordon Gunter* during the period of 13 July – 01 August, 2013. Of the 20 DAS scheduled for this project, 20 DAS are funded in support of NMFS. This project is estimated to exhibit a Medium Operational Tempo. Acknowledge receipt of these instructions via e-mail to [OpsMgr.MOA@noaa.gov](mailto:OpsMgr.MOA@noaa.gov) at Marine Operations Center-Atlantic.

Attachment

cc:  
MOA1



US Department of Commerce  
National Marine Fisheries Service

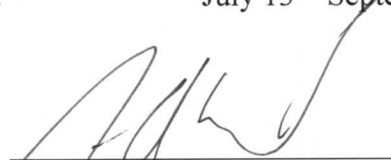
3209 Frederic St.

Pascagoula, MS 39567

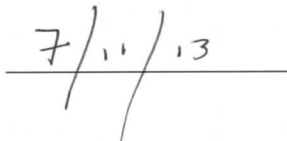
**Project Instructions**

**Date Submitted:** 07 May 2013  
**Platform:** NOAA Ship *Gordon Gunter*  
**Cruise Number:** GU-13-04 (63)  
**Project Title:** Atlantic Marine Mammal Assessment Survey  
**Cruise Dates:** July 13 – September 16, 2013


Prepared by:

  
\_\_\_\_\_  
Jesse Wicker  
FPC  
Miami Laboratory

Dated:

  
\_\_\_\_\_  
7/11/13

Approved by:

  
\_\_\_\_\_  
Captain Anita L. Lopez, NOAA  
Commanding Officer  
Marine Operations Center - Atlantic

Dated:

  
\_\_\_\_\_  
12 Jul 13

Commanding Officer  
NOAA Ship *Gordon Gunter*

PROJECT INSTRUCTIONS  
NOAA Ship *Gordon Gunter* Cruise GU-13-04 (63)

**I. Overview**

A. Project Period: 13 July – 16 September 2013

B. Operating Area: U.S. Atlantic waters between approximately 28°N and 38°N from the 50m isobath to the U.S. EEZ (Figure 1).

C. Summary of Objectives:

**1. Primary Objectives**

1. Conduct visual line-transect surveys to estimate the abundance and spatial distribution of cetaceans in U.S. Atlantic waters.
2. Conduct passive acoustic surveys simultaneous with visual surveys to provide supplemental information on cetacean abundance and spatial distribution.
3. Collect tissue samples (biopsies) of select cetaceans from the bow of *Gordon Gunter*.
4. Collect data on distribution and abundance of sea turtles, seabirds, and other marine life.
5. Collect oceanographic and environmental data including scientific echosounders (EK60) and acoustic Doppler current profiler (ADCP) data to quantify acoustic backscatter due to small fish and zooplankton.
6. Collect vertical profiles of hydrographic parameters (e.g., temperature, salinity, oxygen concentration) using CTD and XBTs.

D. Participating Institutions:

The Southeast Fisheries Science Center (SEFSC), Marine Mammal Program is the primary institution conducting this survey. The U.S. Fish and Wildlife Service (USFWS) may provide participating scientists to support data collection on seabird distribution and abundance. This survey is funded through an interagency agreement with the U.S. Department of Interior, Bureau of Ocean Energy Management (BOEM) under the Atlantic Marine Assessment Program for Protected Species (AMAPPS). AMAPPS is collaboration between the SEFSC, Northeast Fisheries Science Center, USFWS, BOEM and U.S. Navy.

E. Personnel (Science Party): A complete list of names will be provided no later than 30 days prior to departure (8 June 2013).

<u>Name</u>	<u>Title</u>	<u>Sex</u>	<u>Organization</u>	<u>Citizenship</u>
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Leg 1 (13 July – 01 August)

Jesse Wicker	FPC	M	CIMAS, Miami, FL	US
Laura Dias	Scientist	F	SEFC	Brazil
Carol Roden	Scientist	F	SEFC	US
Keith Rittmaster	Scientist	M	SEFC	US
Jodi Smith	Scientist	F	SEFC	US
Melody Baran	Scientist	F	SEFC	US
Tom Johnson	Scientist	M	SEFC	US
Cory Ann Horn-Weaver	Scientist	F	SEFC	US
Kerry Dunleavy	Scientist	F	SEFC	US
Talia Dominello	Scientist	F	SEFC	US
Melissa Soldevilla	Scientist	F	SEFC	US
Michelle Savoie	Scientist	F	SEFC	US
Juan Carlos Salinas	Scientist	M	SEFC	Mexico
Amelia Jugovich	Scientist	F	SEFC	US
Paul Nagelkirk	Scientist	M	SEFC	US

Leg 2 (05 August – 24 August)

Jesse Wicker	FPC	M	CIMAS, Miami, FL	US
Laura Dias	Scientist	F	SEFC	Brazil
Carol Roden	Scientist	F	SEFC	US
Keith Rittmaster	Scientist	M	SEFC	US
Jodi Smith	Scientist	F	SEFC	US
Melody Baran	Scientist	F	SEFC	US
Tom Johnson	Scientist	M	SEFC	US
Cory Ann Horn-Weaver	Scientist	F	SEFC	US
Kerry Dunleavy	Scientist	F	SEFC	US
Talia Dominello	Scientist	F	SEFC	US
Adam U	Scientist	M	SEFC	US
Michelle Savoie	Scientist	F	SEFC	US
Juan Carlos Salinas	Scientist	M	SEFC	Mexico
Thomas Ninke	Scientist	M	SEFC	US
Paul Nagelkirk	Scientist	M	SEFC	US

Leg 3 (28 August – 16 September)

Jesse Wicker	FPC	M	CIMAS, Miami, FL	US
Laura Dias	Scientist	F	SEFC	Brazil
Carol Roden	Scientist	F	SEFC	US
Keith Rittmaster	Scientist	M	SEFC	US
Jodi Smith	Scientist	F	SEFC	US
Melody Baran	Scientist	F	SEFC	US
Tom Johnson	Scientist	M	SEFC	US
Cory Ann Horn-Weaver	Scientist	F	SEFC	US
Kerry Dunleavy	Scientist	F	SEFC	US
Talia Dominello	Scientist	F	SEFC	US
Adam U	Scientist	M	SEFC	US
Michelle Savoie	Scientist	F	SEFC	US
Juan Carlos Salinas	Scientist	M	SEFC	Mexico
Thomas Ninke	Scientist	M	SEFC	US
Paul Nagelkirk	Scientist	M	SEFC	US

F. Administrative:

1. Points of Contact:

- a. Field Party Chief: Jesse Wicker; 75 Virginia Beach Drive., Miami, FL 33149; (305) 361-4461; [Jesse.Wicker@noaa.gov](mailto:Jesse.Wicker@noaa.gov)
- b. Principal Investigator: Dr. Lance Garrison; 75 Virginia Beach Drive., Miami, FL 33149; (305) 361-4488; [Lance.Garrison@noaa.gov](mailto:Lance.Garrison@noaa.gov)
- c. Principal Investigator: Dr. Keith Mullin; 3209 Frederic Street., Pascagoula, MS 39567; (228) 549-1632; [Keith.Mullin@noaa.gov](mailto:Keith.Mullin@noaa.gov)

2. Diplomatic Clearances: This cruise does not involve research under the jurisdiction of any other country. No diplomatic clearance has been requested.

3. Licenses and Permits:

This cruise will be conducted under the following permit:

This cruise will be conducted under Marine Mammal Protection Act Research Permit #779-1633-00 issued to the Southeast Fisheries Science Center.

**II. Operations**

A. Cruise Plan/Itinerary:

Itinerary:

<u>Leg</u>	<u>Date</u>	<u>Location</u>
1	July 13, 2013 August 01, 2013	Depart Norfolk, VA Arrive Norfolk, VA
2	August 05, 2013 August 24, 2013	Depart Norfolk, VA Arrive Charleston, SC
3	August 28, 2013 September 16, 2013	Depart Charleston, SC Arrive Pascagoula, MS

B. Staging and Destaging: NORFOLK/PASCAGOULA

Equipment will be staged in Norfolk, VA at the MOC-A. Loading will be conducted during the 2-3 days immediately prior to the departure. Offloading of all scientific equipment will be completed within 3 days, not including the return day, after arrival back in Pascagoula. These evolutions will require deck force to operate the ship's crane during regular business hours on loading and off-loading days. This may require weekend days, and will be scheduled in consultation with the Command.

C. Operations to be conducted:

Operational Plans:

The cruise will depart Norfolk, VA on the morning of 13 July 2013 and transit to the operational area along the shelf break and inner continental slope. During daylight hours, the

vessel will transit at approximately 10 kt along pre-determined tracklines to conduct visual surveys for cetaceans. The passive acoustic array will be deployed simultaneously during these surveys. During night hours, the passive acoustic array will be towed at slower speed over the tracklines covered during the daylight period. XBT casts will be made while underway at pre-determined stations. In addition, CTD casts will be made 2-3 times per day at pre-determined stations to a maximum depth of 500m.

The vessel will work along pre-determined tracklines as far north as 38° N, then return south completing a “double zig-zag” pattern. It is anticipated that scientific operations will be suspended on or about 13 September to begin the return transit to Pascagoula. During the return, if there is sufficient time, operations including visual surveys and passive acoustic surveys may be conducted in the northern Gulf of Mexico. In consultation with the Command, we may coordinate a personnel exchange by small boat during the return transit. This would allow the embarkation of scientists to support calibration of the EK60 scientific echosounders (see below).

Both survey tracklines and oceanographic sampling stations will be provided to the command no later than 2 weeks prior to departure (24 June 2013) in the form of an Excel spreadsheet.

### Visual Survey

The visual surveys for cetaceans will be conducted by 2 independent teams of observers. The primary team will operate on the flying bridge and will consist of 2 observers using the 25x150mm “bigeye” binoculars and a central observer/data recorder. A second observer team will consist of observers manning bigeyes on the left and right bridge wings (with canopies installed). Data for both teams will be collected by the data recorder stationed on the bridge, and communications between teams will be by radio on NOAA channels F1 or F2. Data will be recorded using the VisSurvey data acquisition program which will operate on a laptop. The data collection computer stationed on the flying bridge will be connected to the ship’s network via ethernet cable. The computer should be given appropriate permissions on the network to allow it to receive Scientific Computing System (SCS) messages and send messages over the network. Both 120 volt and 12 volt (10 amp minimum) are required on the flying bridge in addition to the network connection.

Typically, if a cetacean sighting is within a 3.0 nm strip on either side of the ship, the ship will be diverted from the trackline to approach the group to identify species and estimate group-size. The flying bridge data recorder will be responsible for communicating course and speed changes to the vessel operators to facilitate approach to cetacean groups. The flying bridge may also request charted water depths, information on weather, or information on radar contacts.

Survey speed will typically be 10 kt, but may vary with sea conditions. Visual survey effort will likely be suspended during high sea states, poor visibility conditions (e.g., fog, haze, rain), or when there is lightning in the area.

A day/night capable closed circuit television (CCTV) system will be installed on the bow to monitor dolphins that ride the ship’s bow pressure wave. This system will have the capability

to be monitored and recorded on both the flying bridge and acoustics lab. Additionally, request this CCTV system should be broadcast over *Gordon Gunter's* internal TV network for easy monitoring anywhere there is a TV located.

### Acoustic Survey

Passive acoustic monitoring will be conducted simultaneously with the visual observations. Acoustic monitoring will be conducted using towed hydrophone arrays that will be hand-deployed and towed 200-400m behind the vessel at depths of 10-50m below the surface. The arrays will be interfaced with a suite of electronics inside the ship and scientists will monitor the array when it is in tow. An acoustic array will be in use 24 h/day. Signal processing equipment, recording equipment and data collection computers will be stationed in the Dry Lab. A team of operators will rotate through watches to support acoustic monitoring around the clock. Data collection will be accomplished by a computer connected to the ship's network to allow it to both receive SCS signals and send messages over the network.

Request a log of the use of any active transducers on the ship be maintained throughout the cruise and provided as a data product at the end of the cruise. Please note, operating astern propulsion while an array is in the water, should only occur in cases of extreme emergency as there would be a great likelihood of destroying the array or having it tangle in the ship's screws.

### Environmental Sampling

Environmental data will be collected from the suite of instruments integrated into the SCS, which will be in operation 24 h/day. The SCS system will be managed by the ship's Electronics Technician (ET) and a complete copy of these data be provided to the Field Party Chief (FPC) at the conclusion of each leg. The observer stations on the flying bridge and in the acoustics lab will require both standard and customized SCS sentences over the ship's computer network. These customized sentences have already been set up by SEFSC scientists on a previous cruise and should be sent over the network continuously throughout the survey. The ADCP, Simrad EK60, and continuous-flow thermosalinograph/fluorometer systems will operate 24 h/day. Scientific echosounder settings will be determined by the FPC. The data from these systems will be recorded directly to the individual systems hard drive and backed up to the ship's network servers throughout the survey. The science party will then copy this data to portable hard disks at the conclusion of each leg.

CTD casts up to 500 m will be made at pre-determined environmental sampling sites and at stations of opportunity identified during the survey (for example near sperm whale feeding aggregations) on an adaptive basis. CTD operations will take between the hours 0500 and 2100. XBT casts will be made while underway during transit periods along the trackline at approximately 1 h (~ 10 mile) intervals. Following completion of an XBT cast, the collected data will be inspected for initial quality control and to identify significant features in the profile such as surface temperature (5-m depth), mixed layer depth, thermocline depth, and thermocline temperature according to prescribed methods. These data, along with station location and time information, will be logged in a spreadsheet. The Operations (OPS) Officer will be provided with updated physical oceanography sampling plans daily. Request

that the OPS Officer or bridge staff alert scientists in the acoustics lab approximately 10 min before reaching a designated XBT station.

At least once during the survey, the Simrad EK60 will need to be calibrated. This operation involves suspending a metal sphere beneath the transducers. The sphere is attached to spectra line suspended from down-rigger reels attached at 3 predetermined points on the vessel frame. The calibration operation will take place when there are both calm seas and limited current. The vessel will be required to sit dead in the water (engines all-stop) for a period of 8-10 h during the calibration period. This operation will likely be conducted in the later part of the survey during the transit back to Pascagoula, and the FPC will communicate the intent to do the calibration to the OPS Officer.

### Biopsy Sampling

A variety of biopsy rifles, crossbows, and various dart heads will be used for collecting tissue samples from the ship's bow. A fiberglass (or similar non-corrosive material) storage box of adequate size will be mounted on the foredeck in order to provide a weather resistant storage space on the bow for the darting rifles and attendant biopsy equipment. This will allow safe yet rapid access by "shooters" that have the appropriate training and experience and have been designated as such by the FPC. During biopsy collection from the ship's bow, the vessel may be asked to turn multiple times to maintain contact with a targeted group of cetaceans. These communications will be directed by the flying bridge or biopsy personnel on the bow.

Biopsy tissue samples will be used for genetic analysis, stable isotope analysis, and contaminant analysis. Genetic samples will be stored in small vials of 20% DMSO at room temperature or in a refrigerator. Samples for stable isotopes must be stored at -20° C and those for contaminants must be stored at -80° C both shortly after collection and during the duration of the cruise. The small -80° C freezer stationed in the ship's lab and the -20° C chest freezer in the wet lab will be used for sample storage.

D. Dive Plan: N/A

E. Applicable Restrictions: N/A

## **II. Equipment**

### A. Equipment and Capabilities Provided by the Ship:

1. Bigeye mounting plates on deck on flying bridge and bridge wings.
2. Mounts for pedestal chairs on flying bridge.
3. 115v AC and 12v DC power to the flying bridge and bow (for CCTV system)
4. Weather-resistant workstation on the flying bridge at center observer position
5. F1/F2 capable VHF radios in all lab spaces
6. Flying bridge and bridge wing canopy
7. Fluoro-thermosalinograph flow-through system
8. SBE-911 CTD and backup with 1000 m depth capability; sensors: temperature, depth, conductivity, oxygen, fluorescence
9. CTD winch and crane. Winch should be variable for 50 m/min deployment and 20 m/min retrieval



10. Standard SCS configuration with custom SCS sentences
11. Network connections (2 minimum) to flying bridge for survey computers with link to SCS
12. SCS slave monitor on flying bridge
13. Dry Lab space for acoustics equipment
14. RDI Ocean Surveyor ADCP & equipment
15. Scientific Echosounder (EK60) operational at 38 kHz and 120 kHz frequencies
16. Two networked computers in dry-lab for acoustic data collection, XBT data acquisition, and sighting data-entry support
17. -80°C Freezer
18. -20°C Freezer
19. XBT computer and Mk21 system

**B. Equipment and Capabilities Provided by the Scientists:**

1. 25x 150 bigeye binoculars (5)
2. Adjustable bigeye stands (4)
3. Pedestal chairs
4. GPS receivers and antennas
5. Handheld VHF radios
6. Mounted VHF radio
7. Laptop computers for flying bridge and Dry Lab
8. Camera and video equipment
9. Biopsy collection gear
10. XBT & XCTD probes
11. Acoustic arrays & recording equipment
12. DMSO
13. Triton-X
14. ACS Reagent grade alcohol

**IV. Hazardous Materials**

**A. Policy and Compliance:**

The FPC shall be responsible for complying with OMAO Document Management System (DMS), Fleet Environmental Compliance #07, Hazardous Material and Hazardous Waste Management Requirements for Visiting Scientists, released July 2002. Documentation regarding those requirements will be provided by the Chief of Operations, Marine Operations Center, upon request.

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, and/or absorbents in amounts adequate to address spills of a size equal to the amount of chemicals brought aboard. The amount of hazardous material arriving and leaving the vessel shall be accounted for by the FPC.

**B. Radioactive Isotopes: N/A**

C. Inventory: Expected hazardous materials to be brought on board for this cruise are:

1. ACS Reagent grade alcohol – 5 gallons
2. DMSO - one liter
3. Triton-X - <1 liter

## V. Additional Projects

A. Supplementary (“Piggyback”) Projects:

Visual observations for seabirds will be conducted by a dedicated observer operating simultaneously with the marine mammal observation team on the flying bridge.

B. NOAA Fleet Ancillary Projects: N/A

## V. Disposition of Data and Reports

A. Data Responsibilities:

The FPC is responsible for submission of a ROSCOP II form (NOAA, Form 2423) to the National Oceanographic Data Center within 30 days after cruise termination.

The scientific party will provide software for the collection and storage of visual and passive acoustic marine mammal survey data along with that for data acquisition and storage of XBT data. The scientific party will be responsible for QA/QC and back-up of these data. The vessel will provide the ER60 software supporting the operation and data collection from the scientific echosounder, software to operate and collect data from the ADCP, and data acquisition from CTD casts. Hydrographic and weather data will be collected continuously throughout the survey using the vessels SCS system. In addition, the SCS system will be used to record data associated with CTD deployment events. The vessel staff will be responsible for ensuring the effective operation of these systems throughout the survey and effective back-up systems to prevent data loss. Following the cruise, the vessel will provide the FPC with two copies of all collected SCS, ADCP, and EK60 data collected during the survey on hard-drive or DVD.

B. Project Meetings:

Welcome aboard Meeting: On the ship prior to departure, the FPC will conduct a meeting of the scientific party to train them in sample collection and inform them of cruise objectives. Some vessel protocols, e.g., meals, etiquette, etc. will be presented by the ship’s Operations Officer.

Post-Cruise Meeting: If need be, upon completion of the cruise, a post-cruise meeting will be held and attended by the ship’s officers, the FPC and members of the scientific party, the Vessel Coordinator, and the Port Captain to review the cruise. Concerns regarding safety, efficiency and suggestions for improvement for future cruises should be discussed. Minutes of the post-cruise meeting will be taken by the Pascagoula Port Captain and distributed to all participants with e-mail to the [CO.MOC.Atlantic@noaa.gov](mailto:CO.MOC.Atlantic@noaa.gov) and [ChiefOps.MOA@noaa.gov](mailto:ChiefOps.MOA@noaa.gov) . A cruise report will be prepared by the FPC and submitted to the Director, SEFSC, within 30 days after the cruise is completed.

C. Ship Operation Evaluation Report:

Within 7 days of the completion of the cruise, a Ship Operation Evaluation form is to be

completed by the FPC. The preferred method of transmittal of this form is via email to [OMAO.Customer.Satisfaction@noaa.gov](mailto: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

A file copy of each completed evaluation form will be sent to the SEFSC Mississippi Laboratory Director and the SEFSC Vessel Coordinator.

## **VI. Miscellaneous**

### **A. Meals and Berthing:**

Meals and berthing are required for up to 15 scientists per leg. Meals will be served 3 times daily throughout the cruise. 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 7 days prior to the survey.

Berthing requirements, including number and gender of the scientific party, will be provided to the ship by the FPC. The FPC and CO 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 FPC 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 FPC is also responsible for the cleanliness of the laboratory spaces and the storage areas utilized by the scientific party, both during the cruise and at its conclusion prior to departing the ship.

All NOAA scientists will have proper travel orders when assigned to any NOAA ship. The FPC will ensure that all non NOAA or non Federal scientists aboard also have proper orders. It is the responsibility of the FPC 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 CO. 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: 12/11) must be completed in advance by each participating scientist. The NHSQ can be obtained from the FPC or the NOAA website at <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 cruise 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 – Atlantic  
439 W. York Street  
Norfolk, VA 23510  
Telephone 757.441.6320  
Fax 757.441.3760  
E-mail [MOA.Health.Services@noaa.gov](mailto:MOA.Health.Services@noaa.gov)

Prior to departure, the FPC must provide a listing of emergency contacts to the Executive Officer for all members of the scientific party, with the following information: 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. 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.

D. Communications:

A progress report on operations prepared by the FPC may be relayed to the program office. Sometimes it is necessary for the FPC to communicate with another vessel, aircraft, or shore facility. Through various means of communications, the ship can usually accommodate the FPC. 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 OMAO Fleet IT Security Policy 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 preferable. 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:

##### Responsibilities of the FPC:

1. 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.
2. Escorts – The FPC 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 Regional Security Officer.
4. Export Control

The Commanding Officer and the FPC 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 Field Party Chief 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 cruise, provide the Field Party Chief 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 Field Party Chief of any OMAO-sponsored foreign nationals that will be onboard while program equipment is aboard so that the Field Party Chief can take steps to prevent unlicensed export of Program controlled technology. The Commanding Officer and the Field Party Chief 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.

Ensure completion and submission of Appendix C (Certification of Conditions and Responsibilities for a Foreign National Guest) as required by NAO 207-12 Section 5.03.h

## Appendix I

Figure 1. Operating area for GU-13-04 (63). The survey will cover waters between approximately 28°N and 38°N from the 50m isobath to the U.S. EEZ.

