




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-14-04
Essential Fish Habitat

Attached is the final Project Instruction for NF-14-04, Essential Fish Habitat, which is scheduled aboard NOAA Ship *Nancy Foster* during the period of May 5 to May 16, 2014. Of the 12 DAS scheduled for this project, 12 days are funded by an OMAO allocation. This project is estimated to exhibit a High 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 FISHERIES AND HABITAT RESEARCH
 101 Pivers Island Road
 Beaufort, NC 28516

Final Project Instructions


Date Submitted: April 15, 2014
Platform: NOAA Ship *Nancy Foster*
Project Number: NF-14-04 EFH Atlantic (OMAO)
Project Title: Mapping Essential Fish Habitat in the Southeast US to Support Offshore Energy Spatial Planning and Ecosystem Management
Project Dates: May 3 – 16, 2014

Prepared by: TAYLOR.JAMES.CHRISTOPHER.1
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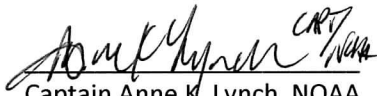
J. Christopher Taylor
 Chief Scientist
 Center for Coastal Fisheries and Habitat Research

Approved by: GOTTHOLM.BERNA.RD.W.1365817061 Digitally signed by GOTTHOLM.BERNA.RD.W.1365817061
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Bernard William Gottholm
 Director
 Center for Coastal Fisheries and Habitat Research

Approved by:  Digitally signed by THUR.STEVEN.M.1365841299
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Mary Erickson
 Director
 National Centers for Coastal Ocean Science

Approved by:  CAPT ANNE K. LYNCH Dated: 5/5/2014
 Captain Anne K. Lynch, NOAA
 Commanding Officer
 Marine Operations Center - Atlantic

I. Overview

A. Brief Summary and Project Period

The Center for Coastal Fisheries and Habitat Research (CCFHR) will conduct a research mission onboard NOAA Ship *Nancy Foster* in proposed wind energy areas near Cape Fear, North Carolina. The purpose of the cruise will be to collect acoustic signatures of the seafloor, drop camera video images of seafloor habitats (sand habitats or >130 ft) and conduct diver biological assessment of the fish and benthic community on hardbottom habitats (<130 ft).

B. Service Level Agreements

Of the 14 DAS scheduled for this project, 14 DAS are funded by OMAO and 0 DAS are program funded. This project is estimated to exhibit a High Operational Tempo.

C. Operating Area

Cape Fear, North Carolina. See Figure 1.

D. Summary of Objectives

1. Scientists will complete high resolution multibeam and acoustic fisheries sonar surveys in shallow depths approximately 20- 55 meters to characterize seafloor habitats within fishing grounds and proposed outer continental shelf (OCS) energy development regions.

2. Scientists will conduct fishery acoustic surveys during night-time hours to map the distribution of fishes over hardbottom habitats, particularly focusing on abundance and distribution of fish adjacent to hardbottom habitats

2. Scientists will conduct diver visual surveys to assess fish abundance and community assemblages and benthic invertebrates and sedimentary characteristics of habitats over hardbottom seafloor types and shipwrecks or artificial reef identified from the sonar imagery. Divers will use no-decompression scientific dive methods.

E. Participating Institutions

NOAA (NCCOS), University of North Carolina – Institute of Marine Science and UNC-Coastal Studies Institute, Geodynamics Group, Inc., Department of Interior (Bureau of Ocean Energy Management), Office of National Marine Sanctuaries, FL Fish and Wildlife Commission, and students from academic institutions.

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

Name	Task	Date Aboard	Date Disembark	Gender	Affiliation	Nationality
Chris Taylor	Chief Scientist, Fish, Acoustics	4 May	15 May	M	NOAA	US
Alyssa Adler	Diver, Photo, Fish	4 May	15 May	F	UNC	US
Christine Buckel	Diver, Habitat	4 May	15 May	F	NOAA	US
Inga Conti-Jerpe	Diver, Habitat	4 May	15 May	F	UNCW	US
Brian Degan	Divemaster, Fish	4 May	15 May	M	NOAA	US
Erik Ebert	Diver, Acoustic	4 May	15 May	M	NOAA	US
Roldan Munoz	Diver, Fish	4 May	15 May	M	NOAA	US
Avery Paxton	Diver, Habitat	4 May	15 May	F	UNC	US
Emily Pickering	Diver, Fish	4 May	15 May	F	UNC	US
Jenny Vander Pluym	Diver, Habitat	4 May	15 May	F	NOAA	US
Shay Viehman	Diver, Habitat	4 May	15 May		NOAA	US
Paula Whitfield	Diver, Fish	4 May	15 May	F	NOAA	US
Gustav Kagesten	Hydrographer	4 May	15 May	M	NOAA	Sweden
William Hoffman	Diver, Habitat	4 May	15 May	M	BOEM	US

G. Administrative

1. Points of Contacts: Chief Scientist: Chris Taylor, 101 Pivers Island Road, Beaufort, NC, 252-838-0833, Chris.Taylor@noaa.gov; Operations Officer: LT Colin Kliewer, 843-991-6326, ops.nancy.foster@noaa.gov

2. Diplomatic Clearances

This project involves Marine Scientific Research in waters under the jurisdiction of the United States. No diplomatic clearances are required.

3. Licenses and Permits

No licenses or permits are required.

II. Operations

A. Project Itinerary

All operations will be conducted within the wind energy area identified in Appendix 1, Figure 1. A Plan of the Day (POD) will be provided to the bridge that details the specifics of projects and timelines related to operations and logistics for the following day. The POD will be delivered to the Operations Officer each evening.

3-4 May

ETD-ETA Transit from Charleston to Morehead City, NC, Staging at Morehead City port

4 May

ETA-ETD Tough-and –go, Science party mobilizes at Morehead City Port, Safety meeting and departure

5 May

ETA Arrive at operating area of Wilmington East area (Appendix 1). If arrival far in advance of day dive operations, conduct MBES survey (region will be provided to ship)

5-14 May

0000 Begin/continue multibeam survey of target areas

0700 Ship completes night multibeam survey. Scientist will direct ship to conduct fishery acoustic at select dive stations prior to day dive operations. Divers load gear on small boats (NF2 2 divers and 2 tanks each; NF3 2-4 divers and 2 tanks each; NF4 2-6 divers 2 tanks each)

0745 Daily safety meeting

0800 Deploy small boats for dive operations

0830 NF Stand by to support dive operations. Drop camera from J-frame may be used on selected days when ship is over sandy seafloor to aid groundtruthing efforts, when able with consideration of diver operations and at CO discretion.

1100 Small boats return to NF, boats recovered

1130 Lunch

- 1230 Divers reload small boats as in morning evolution
- 1245 Small boats deployed for dive operations (NF2 2 divers and 2 tanks each; NF3 2-4 divers and 2 tanks each; NF4 2-6 divers 2 tanks each)
- 1300 NF Stand by to support dive operations. Drop camera from J-frame may be used on selected days when ship is over sandy seafloor to aid groundtruthing efforts, when able with consideration of dive operations and at CO discretion.
- 1600 Small boats return to ship.
- 1630 Recover small boats
- 1700 Secure from dive operations, refill tanks
- 1730 Commence night operations: Scientist enter next day's dive coordinates in small boat GPS. Night fishery acoustic and hydrographic survey: multibeam with fishery sonar to complete seafloor habitat mapping of operating area.

15 May

0000-TBD Night multibeam collection, fill in remaining survey regions
 TBD-ETA Transit to Morehead City
 ETA Demobilize gear (except gear used for outreach)

IN-PORT

16 May: In Port

0800-1500 Education, Policy and Management Event (0800-1500). Meeting, demonstration, and tour of ship for school groups (morning), local and state policy makers and research partners (afternoon) run by science party with help from Ship's crew.

17 May: In Port Rest Day

0900-1130 NOAA-Family Day, open house for family members from NOAA NOS, NMFS, NWS in Carteret County. Tour of vessel and demonstration of survey and dive technologies.
 Alternative: Back-up Education-Outreach tour and demonstration on board. 30 high school students and chaperones will be hosted by NCCOS scientists. Scientist complete destaging of science gear.

18 May: In Port Rest Day

19 May: Transit to Norfolk

B. Staging and Destaging

Equipment will be loaded on 4 May 2014 at 5 PM at Morehead City, NC. The science operations will conclude on 15 May 2014. Destaging will occur following outreach events on 17 May 2014 in Morehead City, NC.

Outreach events will occur 16-17 May 2014 alongside in Morehead City, NC.

C. Operations to be Conducted (N 33.5° W 78°).

Operations Set 1. Multibeam sonar seafloor mapping

Seafloor mapping will be conducted during night operations, and when sea conditions do not permit safe small boat operations. Ship's multibeam sonar (Reson 7125) will be used

simultaneously to log bathymetry and backscatter and will be operated by the survey department with assistance from science party. Multibeam will be used to develop specific habitat locations and possible shipwreck targets. Survey lines will be developed and transmitted to survey department and bridge using Hypack. A CTD cast will be used at beginning of each night. XBT system will be used for sound velocity profiles every 4 hours through night survey operations. Fishery acoustics will be acquired using EK60 simultaneous to multibeam sonar.

Operations Set 2: Fish and benthic community survey

Divers will conduct biological assessments of selected stations on hardbottom habitats identified from the sidescan, multibeam and splitbeam fishery sonar mapping. Dive teams will vary between 2 and 4 divers depending on the objective. One or more divers will assess the benthic invertebrate community and the remaining diver will census the fish community and sizes. Photographs and videos will accompany the data records. In some cases, organisms will be brought to the surface for identification and verification. No chemicals will be needed, but freezers may be used. Some stations will be selected from shipwreck or other artificial objects on the seafloor identified from the sidescan and multibeam sonar imagery. Archaeological surveys will be coordinated with biological assessments of the biological and benthic cover on these sites. Stations will be located using GPS and confirming expected depths on small boats. Upon arrival, lead diver will deploy weighted line with polyball float. This line will be used as a reference mark for divers to descend to station. Divers will deploy from and be retrieved by small boats; *Nancy Foster* will stand by near dive operations area to support as needed. The anticipated bottom time will be 25-40 minutes. Divers will use the following methods while maintaining buddy contact:

- 1) Fish diver will trail a field tape along prescribed heading and document large fishes along a 50 m transect. Returning to station, the same diver will record presence of small fish species.
- 2) Habitat point diver: Diver will record benthic organism occurrence at points distributed every 30 cm for 20 m of the fish transect tape. Returning to the start point, diver will record physical height of relief or ledges.
- 3) Habitat photo diver: Diver will record photos of 0.5 x 0.5 m quadrats at 20 prescribed locations along the transect tape.
- 4) Habitat in-situ: Diver will record occurrence and height of benthic organisms within a 0.5 x 0.5 m quadrat at 4 stations along the transect.

At all stations a fish diver + habitat point diver team will conduct a transect survey. At select stations the additional habitat dive team will also survey the station. When two dive teams are surveying the same station, the dive teams may enter at the same time or alternate time on the bottom, with the surface dive team acting as surface support/safety divers (especially for depths >100 fsw). Buddy pairs can call dive if visibility hinders ability to collect scientific data OR is perceived by any diver to be a safety issue. Divers will always be "connected" to one another by transect tape but will be required to maintain visual contact with buddy.

At the conclusion of the dive, divers will attach a lift bag to the anchor allowing it to be retrieved by topside personnel in the small boats using a controlled ascent. Each buddy team will have at least one NOAA diver that is trained in deploying small Carter lift bags (<100lbs). Divers are trained to inflate lift bag with back gas. Back gas is also used to inflate SMB (Surface Marker Buoys) that each diver will have on person in cases of free ascent after anchor is deployed to surface or in cases of buddy separation/emergencies. Divers will free drift off the bottom releasing a surface marker buoy (lift bag or other highly visible marker) that can be seen from the surface. Small boats will follow divers and upon surfacing retrieve all divers and equipment into the small boats. Where multiple dives are occurring at the same site, divers will descend and ascend the marker buoy line until the last dive team, which will conduct a free ascent. This approach minimizes diver fatigue and ensures anchor retrieval.

If at any time divers breathe their cylinders down to 2/3's of the starting volume the data collection will be terminated and safety ascent procedures will be initiated. This is also known as the rule of thirds, where the first 1/3 of the cylinder is allotted for use by the diver during the bottom phase of the dive, 1/3 of the cylinder is allotted for use by the diver during ascent, and 1/3 of the cylinder is reserved for his/her dive partner in cases of an out of air situation or other emergency contingency. All divers will surface with a minimum of 500 PSI.

Dives will be planned using nitrox computers or appropriate nitrox tables to allow for pre-dive planning and gas management. Maximum depth and bottom time will be planned according to the buddy with the most conservative profile.

Operations Set 3: Drop camera on sand and deep (>130 fsw) habitats

During dive operations on small boats and with consideration for dive operations and CO discretion, the ship's J-frame may be used to deploy a drop camera to collect images of the seafloor at stations over sand habitats or hardbottom habitats that exceed 130ft. The ship will maneuver to station and establish station keeping using dynamic positioning. The small sea-view camera in a small frame will have a heavy weight attached. The drop camera operator will note depth at station and instruct the winch operator to lower the camera frame to just above seafloor. The camera operator may instruct the ship to make small movements using z-drives. After 5 minutes, the camera will be retrieved.

D. Dive Plan (See Appendix for dive plan and dive emergency action 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. (This statement must remain in all project instructions)

Diving operations will be conducted as required to support photography, habitat characterization, and fish surveys. Three small boats will be needed simultaneously to support dive surveys. Each

small boat will carry 2-6 divers and will conduct 2-4 dives before returning to the ship. Individuals who will function as divers are identified above in the list of scientific crew. Ship's divers are invited to assist with dive operations as other duties allow. A NOAA Divemaster will be provided for all dive operations on this project and will follow all NOAA diving policies and regulations. Dive teams will be comprised of two divers each. Where conditions permit 1 or 2 dive teams will be deployed for each dive evolution. Each team will dive between one and five times daily as allowed under "No Decompression" limits of 30, 32 or 36% NITROX at maximum operating depths of 130 fsw. The presence and use of a qualified technician or crewmember to assist with the mixing of NITROX is respectfully requested. Divemasters are trained in tank fills and will assist.

E. Applicable Restrictions

Conditions which preclude normal operations:

Equipment failure: Mitigation - at sea repair, switch to alternate multibeam operations, or suspend operations.

Poor weather: Mitigation – switch to more protected area, switch to alternate multibeam operations, 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, deck and small boats.
- 2) CTD's 100m depth rating.
- 3) XBT MK21 System (on loan from AOML) or underway CTD system
- 4) EM 1002 and Reson Seabat 7125 multibeam sonars, and Kongsberg/Simrad split-beam EK-60 sonars.
- 5) Simrad EK60 splitbeam calibration downriggers and calibration sphere (calibration of EK60 will be determined during cruise based on weather and operations)
- 6) Applanix Pos/MV v.4
- 7) 2-3 cubic foot freezer space (<32 F)
- 8) Internet connection and connection to ship's data server for MBES and EK60 processing computers
- 9) Oxygen kits and recall systems for small boats.
- 10) Dynamic Positioning System
- 11) 15 80 cf and 12 AL100 NITROX scuba tanks and compressor system, initially filled with 36%
- 12) 4 Reserve Air Supply Systems (RASS)
- 13) Three small boats: 2 small boats for 2-4 divers (NF2, NF3), 1 small boat capable of carrying 2-6 divers and tanks (NF4) with GPS and depth sounder to locate stations and confirm depth at station.

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

- 1) Three high end laptops / workstations and 4 flat screen monitors, internet connection required
- 2) XBT probes
- 3) 6 Tb Data Server
- 4) 18 120 cf NITROX scuba tanks, 10 100 cf NITROX scuba tanks with tank racks
- 5) Tank fill whip array
- 6) Nitrox gas analyzers
- 7) Dive benches to store 120 cf nitrox tanks for refill.
- 8) Dive tapes, weights, clipboards, data sheets, dive gear (SEP or alternative serviced within 12 months)
- 9) Laptops for data entry and data management

IV. Hazardous Materials

A. Policy and Compliance

No Hazardous Materials are being brought aboard the ship for this project.

C. Radioactive Isotopes :

No Radioactive Isotopes are planned for this project.

V. Additional Projects

A. Supplementary (“Piggyback”) Projects

No piggyback projects planned.

D. NOAA Fleet Ancillary Projects

No NOAA Fleet Ancillary Projects are planned for this mission.

VI. Disposition of Data and Reports

A. Data Responsibilities

We request that the Ship’s data storage be made available during the cruise to store all digital data. The science party will transfer that data from the Ship storage to scientist drives 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 survey objectives or in consultation with AHB and research partners.

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: *Under Development*

VII. Meetings, Vessel Familiarization, and Project Evaluations

A. Pre-Project Meeting: 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. Vessel Familiarization Meeting: 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. Post-Project Meeting: The Commanding Officer is responsible for conducting 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.oma.noaa.gov/fleeteval.html> and provides a "Submit" button at the end. The Customer Satisfaction Survey is one of the primary methods OMAO and Marine Operations (MO) utilize to improve ship customer service. Information submitted through the form is automatically input into a spreadsheet accessible to OMAO and MO management for use in preparing quarterly briefings. Marine Operations Centers (MOC) address concerns and praise with the applicable

ship. Following the quarterly briefings the data are briefed to the Deputy Director of OMAO.

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.

There are three vegetarians in the science party for this mission.

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, Revised: 02 JAN 2012) must be completed in advance by each participating scientist. The NHSQ can be obtained from the Chief Scientist or the NOAA website <http://www.corporateservices.noaa.gov/~noaaforms/eforms/nf57-10->

[01.pdf](#). The completed form should be sent to the Regional Director of Health Services at Marine Operations Center. The participant can mail, fax, or scan the form into an email using the contact information below. The NHSQ should reach the Health Services Office no later than 4 weeks prior to the project to allow time for the participant to obtain and submit additional information that health services might require before clearance to sail can be granted. Please contact MOC Health Services with any questions regarding eligibility or completion of the NHSQ. Be sure to include proof of tuberculosis (TB) testing, sign and date the form, and indicate the ship or ships the participant will be sailing on. The participant will receive an email notice when medically cleared to sail if a legible email address is provided on the NHSQ.

Contact information:

Regional Director of Health Services
Marine Operations Center – Atlantic
439 W. York Street
Norfolk, VA 23510
Telephone 757-441-6320
Fax 757-441-3760
E-mail 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 e-mail and the Very Small Aperture Terminal (VSAT) link. Standard VSAT

bandwidth at 128kbs is shared by all vessels staff and the science team at no charge. Increased bandwidth in 30 day increments is available on the VSAT systems at increased cost to the scientific party. If increased bandwidth is being considered, program accounting is required it must be arranged at least 30 days in advance.

E. IT Security

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

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

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

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

F. Foreign National Guests Access to OMAO Facilities and Platforms

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

Full compliance with NAO 207-12 is required.

Responsibilities of the Chief Scientist:

1. Provide the Commanding Officer with the e-mail generated by the Servicing Security Office granting approval for the foreign national guest's visit. (For NMFS-sponsored guests, this e-mail will be transmitted by FNRS.) 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 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 e-mail granting approval for the foreign national guest's visit.
5. Ensure Foreign Port Officials, e.g., Pilots, immigration officials, receive escorted access in accordance with maritime custom to facilitate the vessel's visit to foreign ports.
6. Export Control - 8 weeks in advance of the project, provide the Chief Scientist with a current inventory of OMAO controlled technology onboard the vessel and a copy of the vessel Technology Access Control Plan (TACP). Also notify the Chief Scientist of any OMAO-sponsored foreign nationals that will be onboard while program equipment is aboard so that the Chief Scientist can take steps to prevent unlicensed export of Program controlled technology. The Commanding Officer and the Chief Scientist will work together to implement any access controls necessary to ensure no unlicensed export occurs of any controlled technology onboard regardless of ownership.
7. Ensure all OMAO personnel onboard receive the briefing on Espionage Indicators (NAO 207-12 Appendix A) at least annually or as required by the Servicing 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

VIII. Appendices

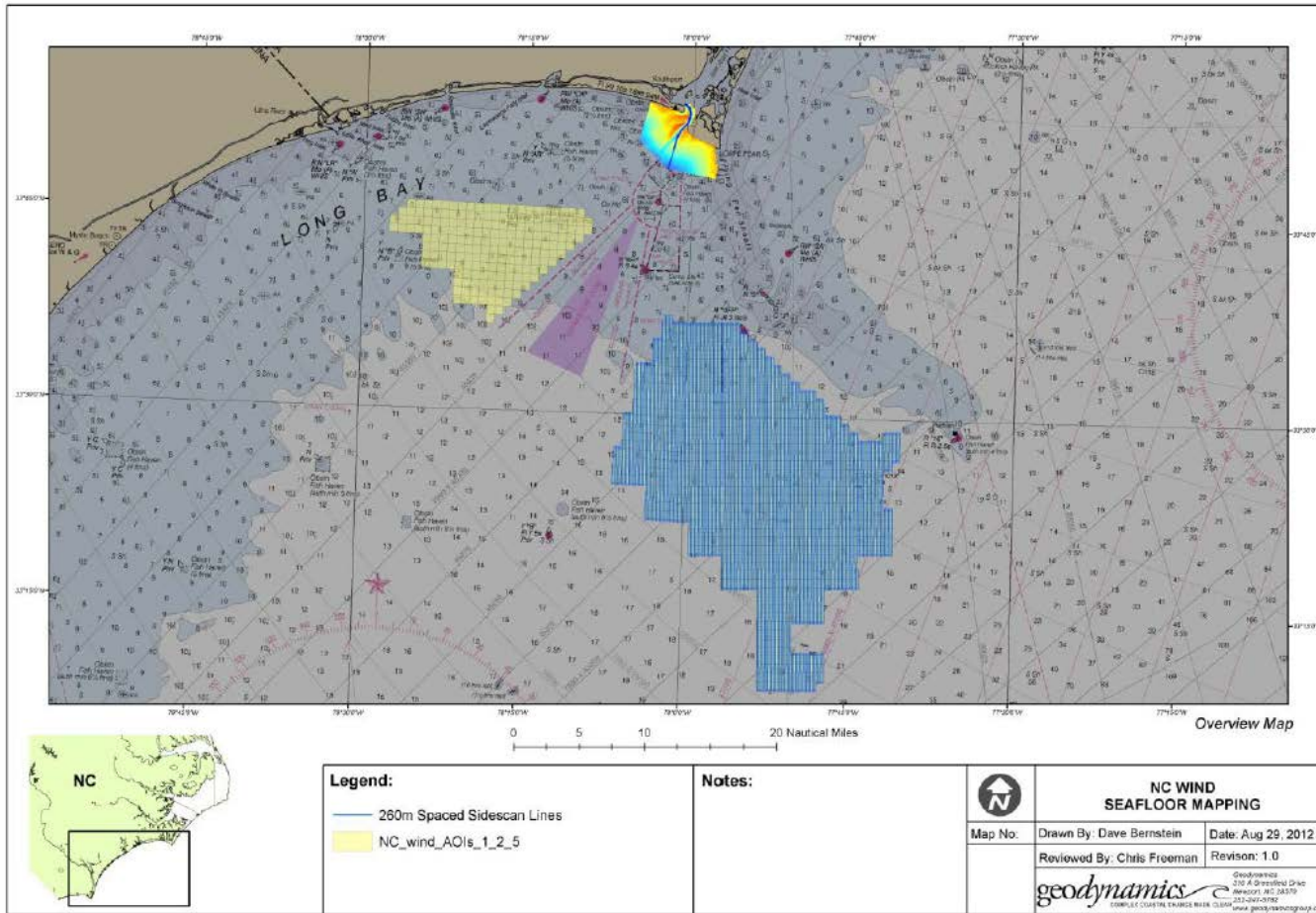


Figure 1: NF-14-XX Project Area (Blue), Wilmington-East Wind Energy and Essential Fish Habitat Area, Cape Fear, North Carolina