




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 Peter Fischel, NOAA
Commanding Officer, NOAA Ship *Pisces*

FROM: 
Captain Anne K. Lynch, NOAA
Commanding Officer, NOAA Marine Operations Center-Atlantic

SUBJECT: Project Instruction for PC-14-01 Leg 3
SEAMAP Reef Fish




Attached is the final Project Instruction for PC-14-01, SEAMAP Reef Fish, which is scheduled aboard NOAA Ship *Pisces* during the period of September 16-30, 2014. The 15 DAS scheduled for this project, 15 days are funded by a Line Office 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 Marine Fisheries Service
Southeast Fisheries Science Center
3209 Frederic St
Pascagoula, MS 39567



Project Instructions

Date Submitted: 08/26/2014 
Platform: NOAA Ship PISCES
Cruise Number: 14-01 (30)
Project Title: SEAMAP Reef Fish
Cruise Dates: 09/16/2014  - 09/30/2014 

Prepared by: Brandi Noble Brandi Noble
2014.08.26 13:43:37 -05'00'
Field Party Chief
Date: 08/26/2014 

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Approved by:  CAPT
NOAA
Captain Anne K. Lynch, NOAA
Commanding Officer
Marine Operations Center - Atlantic
Date: _____ 

I. Overview

A. Brief Summary and Project Period

The ship will conduct an Acoustic Calibration and Biomass Survey on the U.S. continental shelf in the eastern Gulf of Mexico (GOM) from September 16th to 30th, 2014. Due to delays in the major repair period of the NOAA ship *Pisces* and manning issues, 25 sampling days were lost from the SEAMAP Reefish survey. Funding was provided by OMAO for a charter vessel but mapping capabilities were not available. This time was given to account for that lost therefore extensive mapping will occur to increase our sample universe.

B. Days at Sea (DAS)

Of the 15 DAS scheduled for this project, 0 DAS are funded by an OMAO allocation, 15 DAS are funded by a Line Office Allocation, 0 DAS are Program Funded, and 0 DAS are Other Agency funded. This project is estimated to exhibit a High Operational Tempo.

C. Operating Area

The area of operation is the U.S. shelf waters of the eastern GOM (30° 18' N, -89° 00' W; 25° 25' N, -83° 30' W) in depths between 30 and 150 m (Figure 1).

D. Summary of Objectives

NOAA Ship *Pisces* will conduct an acoustic survey located on the continental shelf and shelf edge of the eastern GOM. Testing of the ship's Simrad ME70 multibeam and EK60 echosounder systems will be conducted along with SSS operations to ensure positional accuracy of all systems. The ship's ME70 will also be used to conduct bathymetric mapping in predetermined targeted areas to increase the reef fish sample universe.

E. Participating Institutions

NOAA/NMFS/SEFSC Mississippi Laboratories, Riverside Technologies Mississippi Lab, The University of Southern Mississippi, UNH/NOAA Joint Hydrographic Center

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

Name (Last, First)	Title	Leg	Date Aboard	Date Disembark	Gender	Affiliation	Nationality
Noble, Brandi	FPC	3	09/16/2014	09/30/2014	F	NMFS/Pascagoula	US
Maggio, David	hydrographic student	3	09/16/2014	09/30/2014	M	USM/Stennis Space Center	US
Johnson, Jim	Electronics Tech.	3	09/16/2014	09/30/2014	M	NMFS/Stennis Space Center	US
Thompson, Charles	Fishery Biologist	3	09/16/2014	09/30/2014	M	NMFS/Stennis Space Center	US

Name (Last, First)	Title	Leg	Date Aboard	Date Disembark	Gender	Affiliation	Nationality
Wilkinson, Kenneth	Electronics Tech.	3	09/16/2014	09/30/2014	M	NMFS/Stennis Space Center	US
Wolfskehl, Sarah	Hydrographic Specialist	3	09/16/2014	09/30/2014	F	CCOM/UNH-NOAA Joint Hydrographic Center	US

G. Administrative

1. Points of Contacts:

FPC: Brandi Noble, NMFS, 3209 Frederic St., Pascagoula, MS 39567. 228-549-1636 Brandi.Noble@noaa.gov

Alternate Contact: Matthew Campbell, NMFS, 3209 Frederic St., Pascagoula, MS 39567. 228-549-1690 Matthew.D.Campbell@noaa.gov

2. Diplomatic Clearances

None Required.

3. Licenses and Permits

This project will be conducted under the Scientific Research Permit (U.S.) issued by National Marine Fisheries Service on April 23, 2013 to Brandi Noble.

Scientific Research Permit (SRP) and Turtle Excluder Device (TED) Exemption

II. Operations

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

A. Project Itinerary:

Leg	Date	Depart/Arrive Location	Sea Days
Leg 1	09/16/2014 09/30/2014	Depart Pascagoula, MS Arrive Tampa, FL	15

B. Staging/Destaging:

Pascagoula, MS/Tampa, FL

C. Operations to be conducted:

NOAA Ship *Pisces* will conduct an acoustic survey located on the continental shelf and shelf edge of the eastern GOM (Figure 1) from September 16th to 30th, 2014. Testing of shipboard

acoustic systems, Simrad ME70 and EK60, and (SSS) using different configurations will be conducted. Bathymetry mapping will also be conducted in predetermined target areas with the ME70 to increase the reef fish sample universe. More detailed site information (transect lines) will be supplied at a later date. The cruise outline will be conducted in this order:

- 1) A patch test will be conducted to test the positional accuracy of the SSS on a known, low relief bottom (Figure 1).
- 2) Testing of several ME70 configurations will be done in and around the DeSoto Canyon Area during the day (Figure 1). The objective is to find a configuration that will reduce the noise and variance in the outer beams. For testing, several transect lines will be run and processed with each configuration. Night operations will consist of mapping in and around the testing area with the default configuration (T. Webber, UNH).
- 3) When the optimal configuration for the ME70 has been decided additional testing of ship speeds will be conducted to determine the most favorable for conducting mapping operations. A single transect line will be ran at 5, 6, 7, 8, 9 and 10 kt and processed. If the opportunity presents itself, this test will be repeated on a day where sea state exceeds five ft.
- 4) SSS operations will be conducted in conjunction with the ME70 at the Florida Middle Grounds to compare backscatter data obtained with both systems for habitat classification (Figure 1). Several transect lines will be run and processed.
- 5) Video cameras will be deployed at select locations for ground-truthing of targets seen in the water column data collected with the ME70 and EK60. After deployment several transect lines will be conducted in and around the area. A drift test will need to be conducted before running each deployment.
- 6) When all testing is complete, operations will then move to mapping 24 h with the ME70 for the remainder of the cruise (Figure 1).

A CTD cast will be conducted at the beginning and end of each mapping area to obtain speed-of-sound for proper processing of data. All other acoustic systems need to be turned off prior to and during acoustic transects to eliminate acoustic contamination of the mapping data. If other systems are required to ensure safe transit while mapping, ensure that the acoustic signals are offset and not interfering with each other. Transects for mapping will be composed in Hypack by the FPC and made available to the ship's bridge crew in a format the ship's GPS will accept.

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 CO.

Scientific dives are not planned for this project. If the ship must conduct dive ops while at sea the CO will confer with the FPC as to when the dive ops will occur so the dive will have the least impact on the scientific work.

E. Applicable Restrictions

Conditions which preclude normal operations: extreme weather conditions such as tropical systems or equipment failure of the ME70 or EK60.

III. Equipment

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

1. Hydrographic winch for deploying CTD to a depth of 500 m.
2. Hydraulic pot hauler.

3. Two SBE9+ CTDs with calibrated sensors.
 - a. one DigiQuartz depth sensor
 - b. two SBE 3 Premium temperature sensors.
 - c. two SBE 4 conductivity sensors (items b. and c. connected with TC ducts).
 - d. two SBE 43 dissolved oxygen sensors.
 - e. two SBE 5T pumps.
 - f. one WetStar fluorometer.
 - g. one SBE water sampler.
 - h. One transmissometer
4. Scientific Computer System (SCS).
5. Stern A-frame (for SSS operations)
6. Simrad ME70 Multibeam and EK60 Echosounder systems
7. Mounting and power supply (230/460VAC, 3 phase, 50/60HZ) for one SSS winch.
8. Pull master winch for retrieving hydrophone pole

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

1. Edgetech 4125 Series dual frequency side scan sonar (2)
2. Edgetech topside box (2)
3. ORE topside box (2)
4. ORE hydrophone (2)
5. ORE multibeacon with charger (2)
6. Tow winch for SSS with 500m of cable (2)
7. Winch control extension lever (2)
8. Deck cable for SSS (2)
9. Power cable for SSS and hydrophone (2)
10. Ethernet cable for SSS and hydrophone (2)
11. Stereo camera array with buoy retrieval system
12. Stereo cameras and underwater housings
13. External 2TB fathom drives for stereo data storage
14. Specialized computer systems for stereo data downloads

IV. Hazardous Materials

A. Policy and Compliance

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

B. 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: *Under Development*

VII. Meetings, Vessel Familiarization, and Project Evaluations

- A. Pre-Project Meeting: The FPC and CO 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 FPC in arranging this meeting.
- B. Vessel Familiarization Meeting: The CO 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 h of the project's start and is normally presented by the ship's Operations Officer.
- C. Post-Project Meeting: The CO is responsible for conducting a meeting no earlier than 24 h before or no later than seven 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, vessel coordinator, FPC, and members of the scientific party and is normally arranged by the Operations Officer and FPC.
- D. Project Evaluation Report

Within seven days of the completion of the project, a Customer Satisfaction Survey is to be completed by the FPC. The form is available at <http://www.oma.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 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 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 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 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 FPC or the NOAA website <http://www.corporateservices.noaa.gov/noaforms/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 Accellion Secure File Transfer which requires the sender to setup an account. Accellion's Web Users Guide 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
E-mail MOA.Health.Services@noaa.gov

Prior to departure, the FPC 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's 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 FPC to ensure members of the scientific party report aboard with the proper attire.

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 vessel 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 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

Foreign National access to the NOAA ship or Federal Facilities is not required for this project.

VIII. Appendices

1. Figures, maps, tables, images, etc.

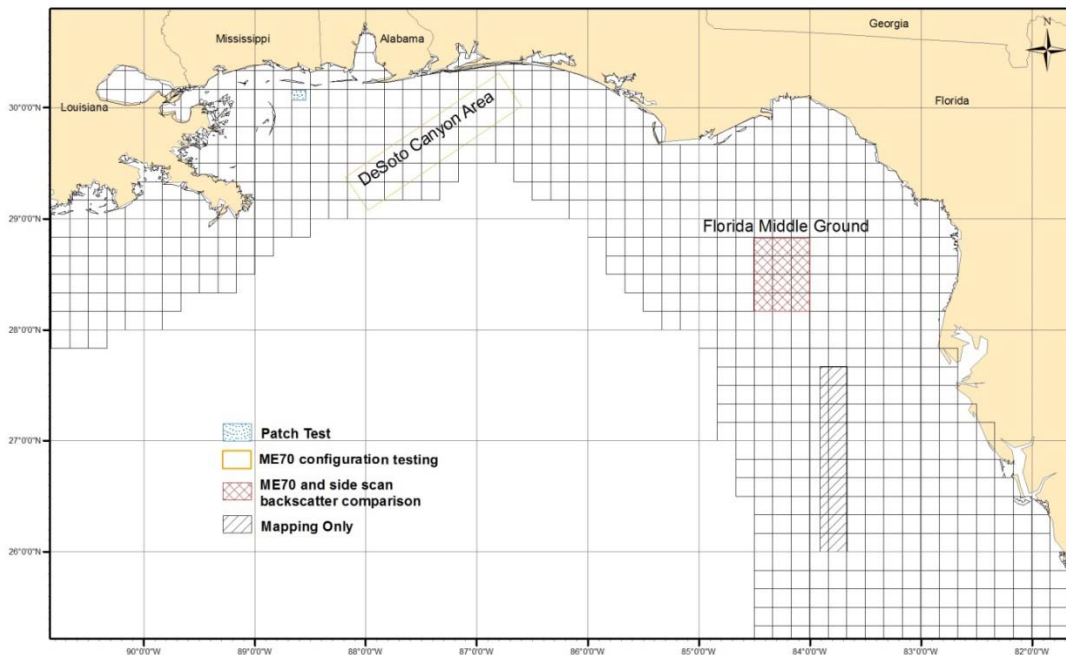


Figure 1. Locations selected for testing and bathymetric mapping during the NOAA Ship *Pisces* PC-14-01, Acoustic Calibration and Biomass Survey.