#### 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

July 11, 2017

MEMORANDUM FOR: Commander Christiaan Van Westendorp, NOAA

Commanding Officer, NOAA Ship Thomas Jefferson

FROM:

Captain Scott M. Sirois, NOA

Commanding Officer, NOAA Marine Operations Center-Atlan

SUBJECT:

Project Instruction for TJ-17-04

Approaches to Chesapeake Bay

Attached is the final Project Instruction for TJ-17-04, Approaches to Chesapeake Bay, which is scheduled aboard NOAA Ship *Thomas Jefferson* during the period of July, 2017. Of the 12 DAS scheduled for this project, 12 days are funded by a Line Office Allocation. This project is estimated to exhibit a Medium Operational Tempo. Acknowledge receipt of these instructions via e-mail to <a href="mailto:chiefops.moa@noaa.gov">chiefops.moa@noaa.gov</a> at Marine Operations Center-Atlantic.



## **Final Project Instruction**

Date	Submitted:	July 5,	2017

Platform:	NOAA Ship Thomas Jefferson

Project Number:	TJ-17-04 (OMAO)
r roiect number:	1,1-1/-04(1,1)(1,4(1)

## **Project Title:** Approaches to Chesapeake Bay

Project Dates:	July 15,	2017 to J	uly 26,	2017

Prepared by: Dated: July 10, 2017

Lieutenant Russell Quintero, NOAA

Chief, Operations Branch Hydrographic Surveys Division

Approved by: Kickar J Stenson Dated: July 10, 2017

Captain Richard Brennan, NOAA Chief, Hydrographic Surveys Division

Office of Coast Survey

Approved by:

Commanding Officer

Marine Operations Center - Atlantic

NORR

#### I. Overview

#### A. Brief Summary and Project Period

This survey is scheduled to begin in July 2017 and end in July 2017. This project is being conducted in support of NOAA's Office of Coast Survey's mission to provide contemporary hydrographic data in order to update nautical charting products and reduce survey backlog in the area.

#### B. Days at Sea (DAS)

Of the 12 DAS scheduled for this project, 0 DAS are funded by an OMAO allocation, 12 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 project area is located offshore of Currituck Beach, North Carolina extending to southernmost Virginia. A map of the project area can be found with the detailed project instructions appended to this document.

#### D. Summary of Objectives

This project will support the following primary mission:

To support safe navigation through the acquisition and processing of hydrographic survey data for updating nautical charts and by the identification and dissemination of dangers to navigation as identified during the course of survey operations.

#### E. Participating Institutions

NOAA Office of Coast Survey

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

Name (Last, First)	Title	Date	Date Disembark	Gender	Affiliation	Nationality
rirst)		Aboard	Disembark			
Marcus, Clint	Physical Scientist	7/15/2017	7/26/2017	Male	NOAA	USA

#### G. Administrative

#### 1. Points of Contacts:

Principal Investigator:
Lieutenant Russell Quintero,NOAA
Chief, Operations Branch
Hydrographic Surveys Division
1315 East West Hwy, #6116
Silver Spring, MD 20910
240-533-0038
russell.quintero@noaa.gov

Project Manager:
Martha Herzog
Physical Scientist, Operations Branch
Hydrographic Surveys Division
1315 East West Hwy, #6105
Silver Spring, MD 20910
240-533-0028
martha.herzog@noaa.gov

Back up Project Manager Corey Allen Physical Scientist, Operations Branch Hydrographic Surveys Division 1315 East West Hwy, #6115 Silver Spring, MD 20910 240-533-0037 corey.allen@noaa.gov

#### Chief Scientist:

Commander Christiaan Van Westendorp, NOAA Commanding Officer, NOAA Ship Thomas Jefferson 439 West York Street Norfolk, VA 23510-1114 (757) 647-0187 CO.Thomas.Jefferson@noaa.gov

## 2. Diplomatic Clearances

None Required.

## 3. Licenses and Permits

The Office of Coast Survey is sensitive to the potential effects of its operations on the physical, biological, and cultural marine environment. In accordance with the National Environmental Policy Act, Coast Survey prepared a Programmatic Environmental Assessment to gauge the environmental impacts resulting from surveying and other data

gathering activities. As a result, the National Ocean Service has published a Finding of No Significant Impact (FONSI) for the Office of Coast Survey program of conducting hydrographic surveys for the calendar years 2013 - 2018.

In addition The Office of Coast Survey has implemented Best Management Practices (BMPs) based on the ESA mitigation and monitoring measures agreed to between the OCS Hydrographic Services Division (HSD) and the NMFS Office of Protected Resources (OPR-ESA) and documented in the April 30, 2013 Biological Opinion. They were adopted in the context of the ESA, but include BMPs for marine mammals listed in the ESA ("depleted" under MMPA).

For further information on the BMPs, please refer to the Environmental Compliance Section of the Hydrographic Survey Project Instructions. For further information on OCS Regulations and Policies go to: <a href="http://www.nauticalcharts.noaa.gov/Legal/">http://www.nauticalcharts.noaa.gov/Legal/</a>.

#### 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:

Itinerary will be based upon the ship's schedule and executed under the direction of the Commanding Officer. Every effort shall be made by the Commanding Officer to maximize the operational efficiency of assigned projects. Please refer to ships sailing schedule in SDAL or by contacting the Marine Center Atlantic Chief of Operations at chiefops.moa@noaa.gov or by phone at 757-441-6842.

DEP: 7/15/2017	Sat	Norfolk, VA	TJ-17-04 Leg 1
ARR: 7/26/2017	Fri	Norfolk, VA	Approaches to Chesapeake Bay

#### B. Staging and Destaging:

## C. Operations to be Conducted:

Hydrographic survey operations shall be conducted per the appended project instructions. The ship and/or survey launches shall operate for a total of 24 hr/day for data acquisition and project field support. To achieve this, the Commanding Officer may elect to run 24 hour ship survey operations for short or extended periods of time with reduced launch operations as long as the total hours per day are achieved.

#### D. Dive Plan

Dives are not planned for this project.

## E. Applicable Restrictions

Conditions which preclude normal operations:

- Poor weather conditions
- Equipment failure
- Safety concerns
- Personnel shortage

## III. Equipment

- A. Equipment and Capabilities provided by the ship (itemized)
  - 1. Two survey launches fully-outfitted with hydrographic survey equipment to support multibeam and/or side scan and/or vertical beam sonar survey operations.
  - 2. Ship fully-outfitted with hydrographic survey equipment to support multibeam and/or side scan sonar survey operations.
  - 3. Personnel to staff and operate the survey equipment on the launches and ship for the required operational hours/day described in Section II. C. Operations to be Conducted.
  - 4. A fully-staffed survey department to efficiently manage the project's data processing requirements.
- B. Equipment and Capabilities provided by the scientists (itemized)

Hydrographic survey operations shall be conducted per the appended project instructions. The ship and/or survey launches shall operate for a total of 24 hr/day for data acquisition and project field support. To achieve this, the Commanding Officer may elect to run 24 hourr ship survey operations for short or extended periods of time with reduced launch operations as long as the total hours per day are achieved.

#### 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.

## 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 <a href="http://www.omao.noaa.gov/fleeteval.html">http://www.omao.noaa.gov/fleeteval.html</a> 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 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 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

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

#### VIII. Appendices

1. Primary Project Instructions: OPR-D304-TJ-17, Approaches to Chesapeake Bay.

## **Hydrographic Survey Project Instructions**

Project Name:	Approaches to Chesapeake Bay
Project Number:	OPR-D304-TJ-17
Assigned Field Unit:	NOAA Ship <i>Thomas Jefferson</i>
Assigned Processing Branch:	Atlantic Hydrographic Branch
Signed Date:	07/06/2017
Project Instructions Version:	Final
Planned Acquisition Time:	Start Date: 07/2017 End Date: 07/2017
Delivery Dates:	120 days from completion of data acquisition.

## **Purpose and Location:**

The purpose of this project is to provide contemporary surveys to update National Ocean Service nautical charts and products. The project area has not been surveyed since the 1920s, and this hydrographic survey will bring needed chart updates for the area. Survey data from this project is intended to supersede all prior survey data in the common area.

## **Supporting Documents:**

Hydrography shall consist of Navigable Area Surveys in accordance with the following support documents.

NOS Hydrographic Surveys Specifications and Deliverables Manual (HSSD), April 2017

Hydrographic Survey Technical Directive (HTD): 2017-2 Variable Resolution Bathymetric Grids

Hydrographic Survey Technical Directive (HTD): 2017-3: Configuration Management

NOS Field Procedures Manual for Hydrographic Surveying (FPM), April 2014

PERSONNEL SAFETY AND DATA QUALITY SHALL ALWAYS BE EMPHASIZED OVER DATA QUANTITY! THE HYDROGRAPHER SHALL NEVER SUBJECT PERSONNEL OR BOATS TO UNDUE RISKS AND HAZARDS.

## Registry Details:

General Locality: Approaches to Chesapeake Bay

Registry Number		Sublocality	State or Territory	Scale	Estimated SNM	Instructions
H13058	1	4 NM Northeast of Currituck Beach	North Carolina Virginia	40000	50	

## Limits & Coverage:

*Inshore Limit:* There is no inshore limit defined for this survey.

## Coverage Requirements:

Coverage Water Depth	Coverage Required
All Waters	Complete Coverage (refer to HSSD Section 5.2.2.3)

## Assigned Tasks

## **Acknowledgement:**

The project manager for this project is Martha Herzog. Contact information for the project manager may be found in the User Contacts section of this document. The field unit shall acknowledge receipt of these instructions and submit any comments or questions via email to the project manager. Additionally, the project manager shall be included on all discussions or correspondence involving issues concerning the project.

## **Environmental Compliance Requirements**

Comply with the marine mammal observation and reporting requirements in HSSD Section 1.4 and all Best Management Practices (BMPs) listed at the end of the Project Instructions.

## Aids to Navigation (ATONs):

There are no ATON specifically assigned for this project. Any ATON located within the survey area should be verified so that they serve their intended purpose in accordance with Section 7.3.5 of the HSSD.

Number of Priority ATONs assigned by MCD:	0
Total Number of ATONs assigned by MCD:	0

## **Maritime Boundary Points (MBPs):**

There are no Maritime Boundary investigation requirements for this project.

## **Bottom Samples:**

Obtain bottom samples in accordance with Sections 7.2 and 7.2.3 of the HSSD in areas designated by the feature object class springs (SPRING) in the Project Reference File (PRF). Review the recommended bottom sample locations with regards to the acquired survey data. Contact the Project Manager if it is determined that modifying the bottom sample plan would better differentiate the varying bottom characteristic within the survey area. Any modification to the bottom sample plan shall closely maintain the same numbers of samples per survey as originally assigned.

## **Chart Comparison:**

Perform a chart comparison in accordance with Section 8.1.4 and D.1 of the HSSD. Use only the latest editions of the largest scale ENCs, which can be found at http://www.nauticalcharts.noaa.gov/mcd/enc/index.htm. Resolve any discrepancies identified in the field and explain them in the Descriptive Report. The ENCs, listed below, were used in the preparation of these project instructions and accompanying project files.

Affected ENCs							
ENC Name	Scale	Edition	Update Application Date	Issue Date	Preliminary		
US4NC32M	80000	12	09/23/2016	09/23/2016	NO		

#### **Coast Pilot:**

There is no Coast Pilot requirement for this project.

## **Dangers to Navigation (DTONs):**

Generate DTON reports in accordance with Section 1.6 of the HSSD. DTON reports should be sent to ocs.ndb@noaa.gov with a courtesy copy to the project manager. It is of paramount importance that DTONs be reported as soon as possible.

#### Junctions:

Perform a junction analysis with the prior junctions listed below and current junctions. Refer to HSSD Sections 7.2 and 7.2.2.

Registry Number	Scale	Year	Platform	Relative Location
H12341	20000	2011	NOAA Ship <i>Thomas Jefferson</i>	N
H12342	20000	2011	NOAA Ship <i>Thomas Jefferson</i>	N
H12843	40000	2015	NOAA Ship Ferdinand R. Hassler	E

#### **Progress Reports:**

Submit weekly (refer to HSSD Section 8.1.1.1) and monthly (refer to HSSD Section 8.1.1.2) progress reports.

## **Survey Outlines:**

Generate and submit survey outline in accordance with Section 8.1.2 of the HSSD.

## **Horizontal Control Requirements:**

Comply with the horizontal control requirements in Section 3 of the HSSD.

## **Vertical Control Requirements:**

Comply with the vertical control requirements in Section 3 and 4 of the HSSD.

## Ellipsoidally-Referenced Survey via VDatum

This project has a requirement to acquire survey data vertically-referenced to the ellipsoid. Based on analysis of existing infrastructure, this will most likely be achieved through existing CORS stations. For this project, the field unit shall use a VDatum Separation Model to realize chart datum via the ellipsoid. All survey lines shall be delivered with 3D trajectory and associated uncertainty files applied (e.g. SBETs and RMS) and GPS tides computed. If at any point the field unit experiences difficulty in realizing chart datum via the ellipsoid, the field shall communicate with the HSD Project Manager for guidance on how to proceed.

## **Orthometric Imagery:**

No Orthometric Imagery has been provided for this project.

#### Shoreline and Nearshore Features:

Submit a Final Feature File in accordance with HSSD Section 7. Contact the HSD Project Manager if there are any questions regarding feature assignments and feature management. For the purposes of disproval, charted features labeled with a "PA" will have a search radius of 160 meters, a "PD" will have a search radius of 240 meters, and other features without a position qualifier will have a search radius of 80 meters.

# Additional Task: Coordination with the Navy for surveying within the restricted and military practice areas.

The northern portion of the survey area is within restricted and military practice areas. Survey with in these areas shall only occur on the weekends of July 15-16 and July 22-23. The Area Coordinator (757-433-1320) must be contacted when entering and departing the R6606 and

Additional Task: Coordination with the Navy for surveying within the restricted and military practice areas.

W-50C restricted areas. Refer to the "Commercial Vessels in VACAPES" Power Point briefing for more information. Addional contact information is provided in the User Contacts section of this document.

## **User Contacts**

The following primary offices and persons shall be contacted at or near the beginning and end of the field operations to discuss survey objectives and accomplishment (Mandatory) or are listed for contact at the discretion of the Commanding Officer (Reference).

## **Project Manager**

Martha Herzog

**NOAA** 

Phone: 240-533-0028

Email: martha.herzog@noaa.gov

Obligation: Mandatory

## **HSD/OPS Backup Project Manager**

Corey Allen

NOAA

Phone: 240-533-0037

Email: corey.allen@noaa.gov Obligation: For Reference

## **Navigation Manager, Mid-Atlantic Region**

Lieutenant Ryan Wartick

NOAA

Phone: (757) 364-7458

Email: ryan.wartick@noaa.gov

Obligation: Mandatory

## WYLE Fleet Forces Atlantic Exercise Coordination Center (FFAECC) Project Manager

Jay Clark

Navy

Phone: 757-425-2671

Email: john.clark3.ctr@navy.mil

Obligation: Mandatory

## **Contact Before Entering Restricted Areas**

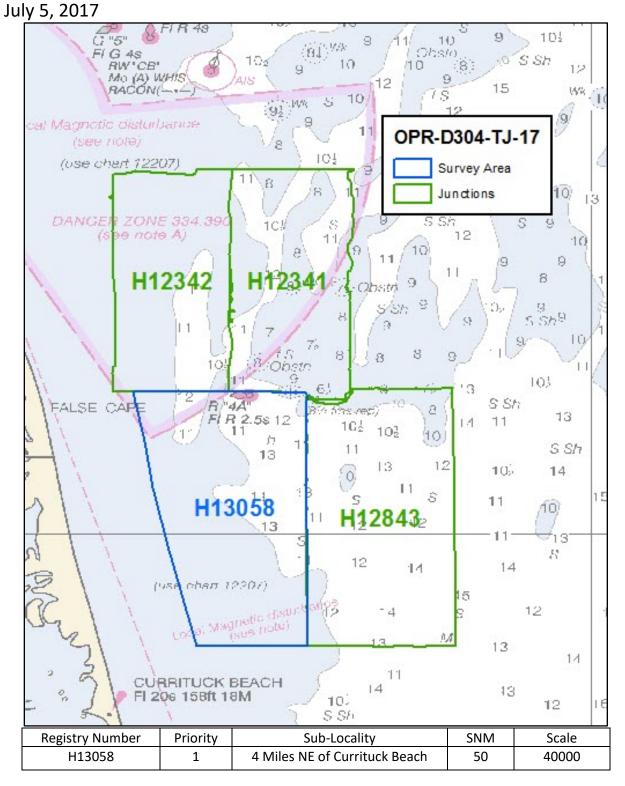
Area Coordinator

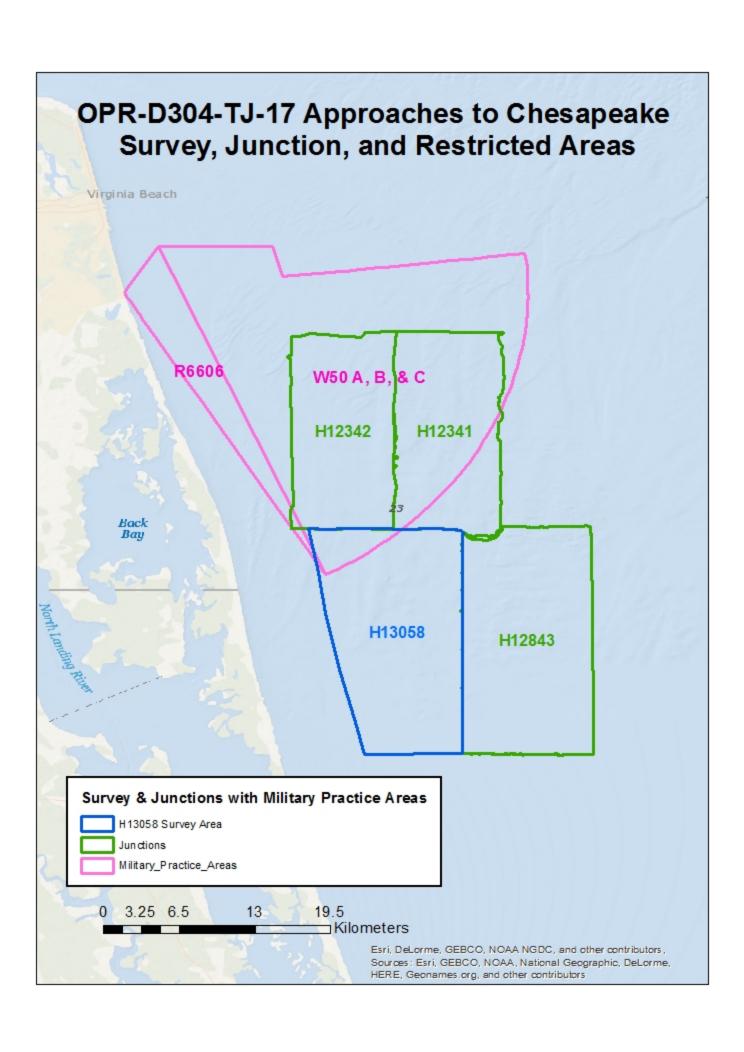
Navv

Phone: 757-433-1320 Email: ffaecc@navy.mil Obligation: Mandatory

OPR-D304-TJ-17
Approaches to Chesapeake Bay
Sheet Layout

Total SNM - 50





#### INTERIM BEST MANAGEMENT PRACTICES (BMPS) FOR HYDROGRAPHIC SURVEYS

The following BMPs are based on the Endangered Species Act (ESA) mitigation and monitoring measures agreed to between the OCS Hydrographic Surveys Division (HSD) and the NMFS Office of Protected Resources (OPR-ESA) and documented in the April 30, 2013 Biological Opinion<sup>1</sup> and in a May 12, 2017 Letter of Concurrence for revised speed limits.<sup>2</sup> They were adopted in the context of the ESA, but include BMPs for marine mammals listed in the ESA ("depleted" under MMPA). OCS follows these BMPs during all OCS hydro work while MMPA compliance is underway. In all cases BMPs will be communicated to ship and boat crews via project instructions. Contractors will additionally be made aware of BMPs via contract RFPs.

## <u>Universal BMPs (those to be included in all OCS project instructions):</u>

#### **Vessel Speed Limits**

- Vessels over 65 feet in overall length are limited to a speed of 13 knots or less <u>at all times</u>, unless a slower speed limit applies to the area (e.g., posted speed limits for the protection of manatees).
- Vessels of 65 feet in overall length or less are limited to a speed of 13 knots or less while mapping, unless a slower speed limit applies to the area.

#### **Echo sounder Restrictions**

- Avoid using sonar frequencies < 180 kHz when possible
  - o If <u>multibeam</u> sonar frequencies < 180 kHz must be employed, use echosounders at ≥ 50 kHz frequencies, with the lowest possible power and ping-rate</li>
  - o If <u>single beam</u> sonar frequencies < 180 kHz must be employed, use echo sounders at ≥ 30 kHz frequencies, with the lowest possible power and ping-rate and a 12° beam angle.
    - If <u>single beam</u> sonar frequencies < 30 kHz must be employed, suspend transmissions of 30 kHz or lower when ESA-listed cetacean species (whales, dolphins, and porpoises) are within hearing range (i.e., the 4.2 meter beam width).</li>

#### **Vessel Maintenance Requirements**

- Meet all EPA Vessel General Permits and Coast Guard requirements
- Use anti-fouling coatings
- Clean hull regularly to remove aquatic nuisance species
- Avoid cleaners with nonylphenols
- Rinse anchor with high-powered hose after retrieval

<sup>&</sup>lt;sup>1</sup> http://www.nmfs.noaa.gov/pr/consultation/opinions/biop\_ocs\_04302013.pdf

<sup>&</sup>lt;sup>2</sup> Concurrence Letter on Revised Protective Measures to be Followed during Coast Survey Operations, NMFS Office of Protected Resources, May 12, 2017

#### **Anchoring Restrictions**

- Use designated anchorage area when available
- Use mapping data to anchor in mud or sand, to avoid anchoring on corals
- Minimize anchor drag

#### **Visual Monitoring Requirements**

- Maintain trained observers aboard all vessels; 100% observer coverage
- Make species identification keys (for marine mammals, sea turtles, corals, abalone, and seagrasses) available on all vessels

#### **Animal Approach Restrictions**

- Avoid nearshore surveys when Steller sea lions are observed onshore
- Avoid approaching within 100 yards of in-water pinnipeds (seals, sea lions, and walruses)
- When possible, suspend single beam sonar transmissions when ESA-listed pinnipeds (seals, sea lions, and walruses) are within hearing range (i.e., within the 4.2 meter beam width).
- Avoid approaching within 200 yards of cetaceans (whales, dolphins, and porpoises), 500 yards for right whales
- Suspend single beam sonar transmissions of 30 kHz or lower when ESA-listed cetaceans (whales, dolphins, and porpoises) are within hearing range (i.e., within the 4.2 meter beam width).
- Avoid approaching within 50 yards of sea turtles

#### **Survey-specific BMPs:**

#### **Vessel Speed Limits**

• As required by 50 CFR 224.105, no vessel of 65 feet or greater in overall length may exceed a speed of 10 knots in designated seasonal management areas for the Right whale.

## **Discharge Restrictions**

Avoid discharge of ballast water and hull cleaning in designated ESA critical habitat

When the project area or the transit to the project area includes or intersects any part of the "Avoid Anchoring" GIS layer provided to project managers by OCS.

#### Relevant CFR Passage Links for critical habitats in the vicinity

North Atlantic Right Whale – Avoid entering when possible during the core calving season (November 1 – April 30)

CFR: 50 CFR 224.105: You must slow down to speeds of 10 knots or less in seasonal management areas.

Map: http://www.fisheries.noaa.gov/pr/species/mammals/whales/north-atlantic-right-whale.html

**Loggerhead Turtles** – Nearshore reproductive habitat

CFR: https://www.federalregister.gov/articles/2014/07/10/2014-15748/northwest-atlantic-ocean-loggerhead-sea-turtle-and-north-pacific-ocean-loggerhead-distinct

Map: http://www.nmfs.noaa.gov/pr/species/turtles/criticalhabitat\_loggerhead.htm

