

D00151

NOAA FORM 76-35A	
U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SURVEY	
DESCRIPTIVE REPORT	
Type of Survey:	Special Project
Registry Number:	D00151
LOCALITY	
State:	Virginia
General Locality:	Chesapeake Bay and Approaches, VA
Sub-locality:	Cape Henry to Portsmouth Marine Terminal
2009	
CHIEF OF PARTY CDR Shepard M. Smith NOAA	
DATE	LIBRARY & ARCHIVES

NOAA FORM 77-28  
(11-72)

U.S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

REGISTRY NUMBER:

## HYDROGRAPHIC TITLE SHEET

**D00151**

INSTRUCTIONS: The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

State: **Virginia**

General Locality: **Chesapeake Bay and Approaches, VA**

Sub-Locality: **Cape Henry to Portsmouth Marine Terminal**

Scale: **1:10,000** Date of Survey: **11/14/09 to 11/16/09**

Instructions Dated: **16 Nov 2009** Project Number: **S-D947-TJ-09**

Vessel: **NOAA Ship *Thomas Jefferson***

Chief of Party: **CDR Shepard M. Smith, NOAA**

Surveyed by: ***Thomas Jefferson* Personnel**

Soundings by: **Reson 7125/8125 multibeam echo sounders**

Graphic record scaled by: **N/A**

Graphic record checked by: **N/A**

Protracted by: **N/A** Automated Plot: **N/A**

Verification by: ***Atlantic Hydrographic Branch***

Soundings in: **Meters at MLLW**

***H-Cell Soundings in: Feet at MLLW***

Remarks: ***Bold italic red notes in the Descriptive Report were made during office processing***

- 1) All Times are in UTC.***
- 2) This is a Special Project Hydrographic Survey.***
- 3) Projection is NAD83, UTM Zone 18.***

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**Descriptive Report to Accompany Hydrographic Survey D00151**

Project S-D947-TJ-09  
 Chesapeake Bay and Approaches, VA  
 Cape Henry to Portsmouth Marine Terminal  
 Scale 1:10,000  
 November 14<sup>th</sup> to November 16<sup>th</sup>, 2009  
**NOAA Ship *Thomas Jefferson***

**A. AREA SURVEYED**

This hydrographic survey was completed as specified by Hydrographic Survey Letter Instructions S-D947-TJ-09, dated 22 July, 2009.

Northern Limit	Southern Limit	Eastern Limit	Western Limit
37°03.337 N 076°05.014 W	36°48.886 N 075°47.445 W	36°50.330 N 075°46.282 W	36°52.827 N 076°21.047 W

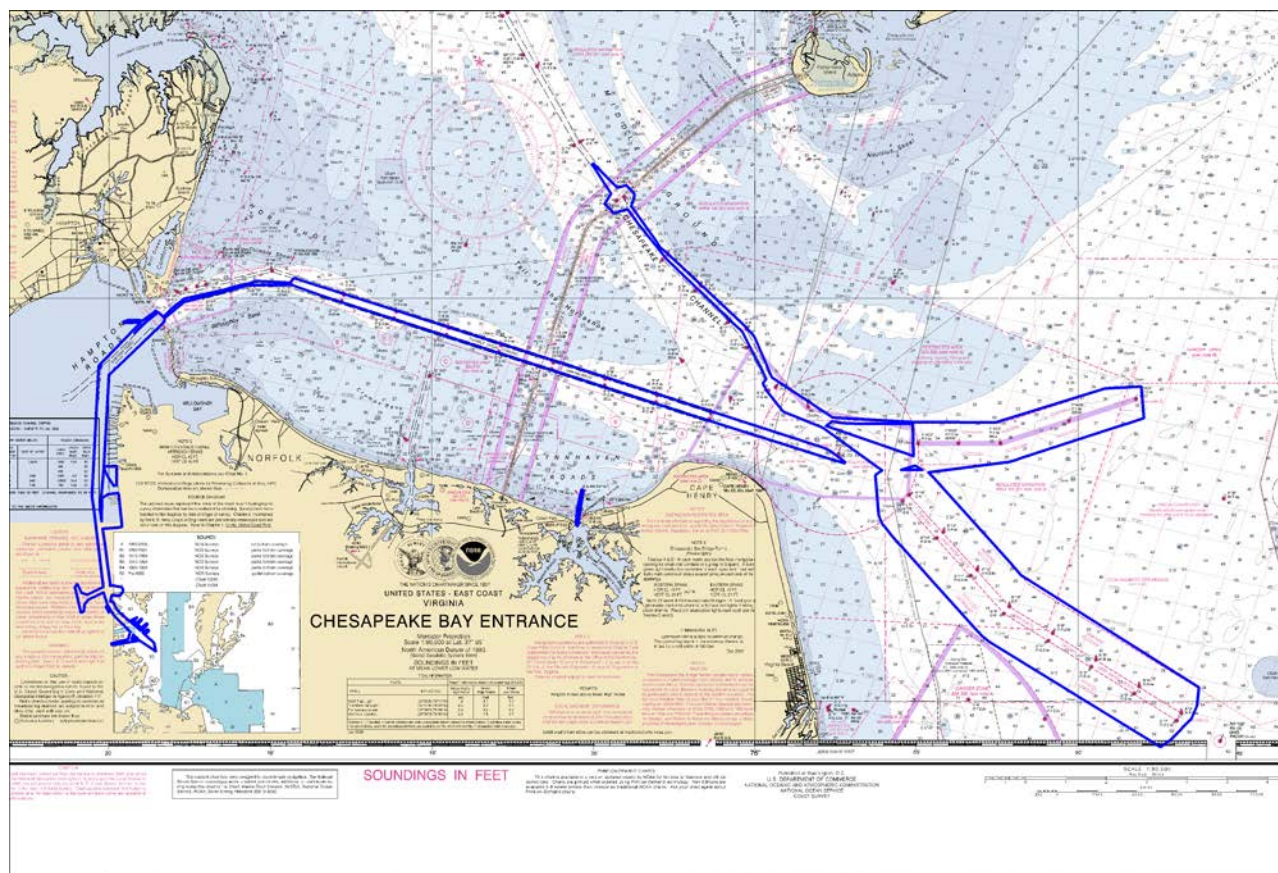
See figure 1 for specific area.

Data acquisition was conducted from November 14<sup>th</sup> until November 16<sup>rd</sup>, 2009.

This project is in response to the emergency request from the USCG, USACE and VA and MD Pilots Association, to perform clearance surveys in response to the Nor' Easter November, 2009. The purpose is to clear the channels and locate any shoaling and obstructions that would prohibit marine traffic.

	Linear Nautical Miles
LNM Single beam mainscheme only	N/A
LNM Multibeam mainscheme only	149.63
LNM Lidar mainscheme only	N/A
LNM Side Scan Sonar mainscheme only	0
Lineal nautical miles of any combination of the above techniques (Single beam and SSS)	52.7
LNM Crosslines singlebeam and multibeam combined	N/A
LNM development lines non mainscheme	5.47
LNM shoreline/nearshore investigations	0
Number of Bottom Samples	0
Number of items investigated that required additional time/effort in the field beyond the above survey operations	0
Total number of square nautical miles	32.48

**Table 1: Hydrographic Survey Statistics**



**Fig. 1. D00151 Survey Area.**

Calendar Date	Julian Day
14 November 2009	318
15 November 2009	319
16 November 2009	320

**Table 2: Acquisition Dates**

## **B. DATA ACQUISITION AND PROCESSING**

Refer to *S-D947-TJ-09 Data Acquisition and Processing Report (DAPR)* for a complete description of data acquisition and processing systems, survey vessels, quality control procedures and data processing methods. Additional information to supplement sounding and survey data, and any deviations from the DAPR are included in this descriptive report.

### **B 1. EQUIPMENT AND VESSELS**

Data was acquired by NOAA Ship Thomas Jefferson (S222), Hydrographic Survey Launch (HSL) 3101 and Hydrographic Survey Launch (HSL) 3102. HSL 3101 acquired multibeam echo sounder (MBES) soundings using a Reson 8125, Hull mounted side-scan sonar (SSS) imagery using a Klein 5000, and sound velocity profiles using SBE 19plus SEACAT Profiler. HSL 3102 acquired multibeam echo sounder (MBES) soundings using a Reson 7125, Hull mounted side-scan sonar (SSS) imagery

using a Klein 5000, and sound velocity profiles using SBE 19plus SEACAT Profiler. S222 acquired multibeam echo sounder (MBES) soundings using a Reson 7125, towed side-scan sonar (SSS) imagery using a Klein 5000, and sound velocity profiles using SBE 19 SEACAT Profiler and SBE 19+ SEACAT Profiler. Vessel configurations, equipment operation and data acquisition and processing were consistent with specifications described in the DAPR.

## **B 2. QUALITY CONTROL**

### **B 2.1 System Certification and Calibration**

Refer to NOAA Ship *Thomas Jefferson's* DAPR and Hydrographic Systems Readiness Report (HSRR) for a complete description of system integration and initial calibration results for equipment and sensors used for this survey.

#### **B.2.2 Sounding Coverage**

As per the Letter Instructions, this survey was conducted using a combination of side-scan sonar imagery with concurrent nadir from multibeam bathymetry from the Midtown tunnel to the Hampton Roads Bridge Tunnel (HRBT). One hundred percent side-scan sonar (SSS) was acquired using a 75 meter range scale at 10cm resolution. From the HRBT to Cape Henry multibeam bathymetry was collected. All MBES grids were monitored and created using CUBE with 2 meter parameters.

#### **B 2.3 Crosslines**

Crosslines were not acquired for this survey.

#### **B 2.4 Junctions and Prior Surveys**

This survey did not require junction or prior survey comparisons.

#### **B 2.5 Systematic Errors**

Significant noise was present in much of the Multibeam data acquired by S222, requiring extensive editing. No single source was determined for this problem.

## **B 3. CORRECTIONS TO ECHO SOUNDING**

HDCS sounding data were reduced to mean lower-low water (MLLW) using verified water levels from Sewells Point, Hampton Roads , VA (863-8610) and Chesapeake Bay Bridge Tunnel, VA (863-8863) using final zoning as provided by CO-OPS and illustrated in Figure 2.

All other datum reduction procedures conform to those outlined in the DAPR.

All methods and instruments used for sound velocity correction were as described in the DAPR. A table detailing all sound velocity casts is located in Separate II of this Descriptive Report.

Sound velocity corrections for this survey were applied using data from the SeaBird 19 CTD and SeaBird 19+ CTD. Application in CARIS HIPS was nearest in time.



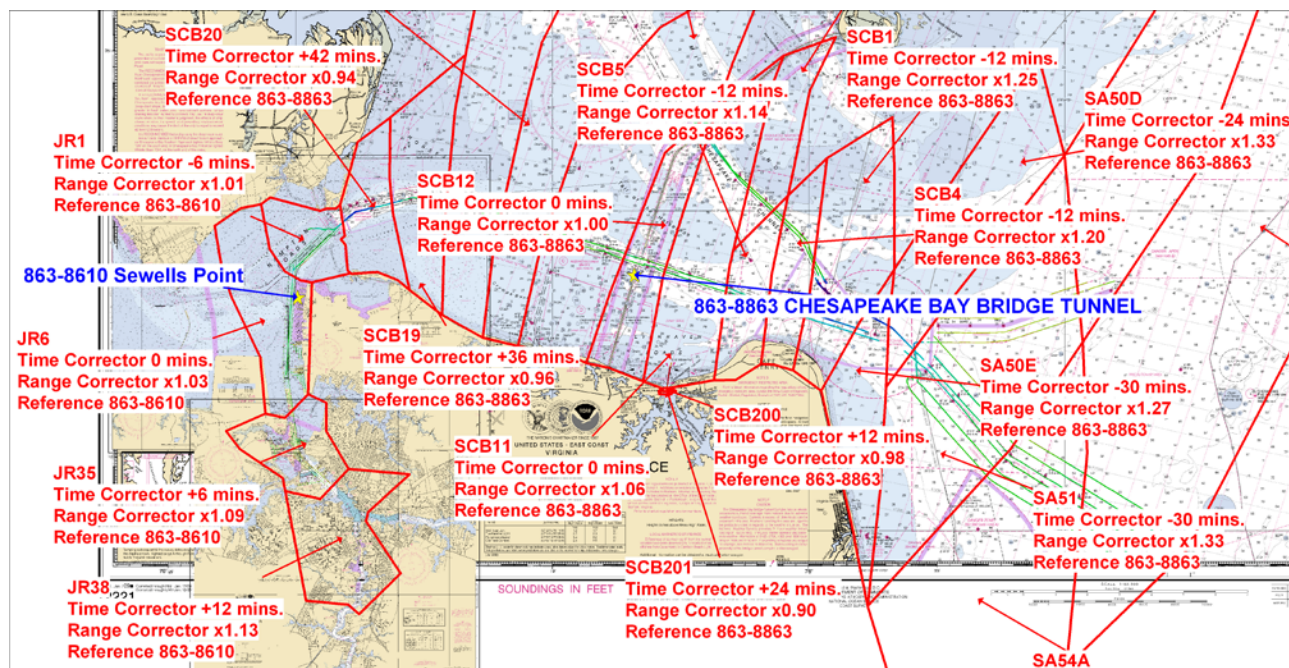


Figure 2: Final Tide Zoning

## B 4. DATA PROCESSING

### B 4.1 Total Propagated Error

For the 2009 field season, Total Propagated Error (TPE) parameters for sound speed and tides are calculated separately for each project. The project-specific parameters for S-D947-TJ-09, Survey D00151 are as follows:

Project	Vessel	Tide Values Combined Measured & Zoning	Sound Velocity Values		
			CTD	MVP	Surface
D00151	S222	0.085	4	1	0.2
D00151	3101	0.085	4	1	0.2
D00151	3102	0.085	4	1	0.2

Table 3: TPE Parameters

These values were calculated for all MBES data immediately following CARIS Merge.

## B 4.2 BASE Surfaces and Mosaics

The following table describes all BASE Surfaces and mosaics submitted as part of Survey D00151:

<i>Name of Surface</i>	<i>Resolution</i>	<i>Type</i>	<i>Purpose</i>
D00151_Section_A1_2m_Final	2.0 meter	CUBE	Sounding Coverage
D00151_Section_A2_2m_Final	2.0 meter	CUBE	Sounding Coverage
D00151_Section_B_Final	2.0 meter	CUBE	Sounding Coverage
D00151_Section_C_2m_Final	2.0 meter	CUBE	Sounding Coverage
D00151_Section_D_2m_Final	2.0 meter	CUBE	Sounding Coverage
D00151_Section_E_2m_Final	2.0 meter	CUBE	Sounding Coverage
D00151_Section_F_Final05m	0.5 meter	CUBE	Object Detection
D00151_section_G_NOAA_3m_uncert	3 meter	Uncertainty	Sounding Coverage
D00151_dn318_Mosaic	1.0 meter	SSS	Object Detection

**Table 4: BASE Surfaces**

This survey was processed using HIPS/SIPS 6.1. Surfaces were computed using the Combined Uncertainty and Bathymetry Estimator (CUBE) algorithm. The Single Beam surface was computed using Uncertainty. The CUBE configuration was set to NOAA\_2m for the 2 meter coverage surface and NOAA\_0.5m for the 0.5 meter coverage surface. Refer to the 2009 Data Acquisition and Processing Report, 2009 Field Procedures Manual, and CARIS HIPS and SIPS User Guide for further discussion.

## B 4.3 Data cleaning

The survey data was cleaned using the subset editor tool in CARIS. All areas of the BASE surface that indicated a high standard deviation were examined and cleaned as required such that no residual errors exist in the surface that exceed the IHO order 1 depth accuracy requirements.

## C. VERTICAL AND HORIZONTAL CONTROL

As per FPM section 5.2.3.2.3 a HVCR report was not filed as no horizontal and vertical control stations were established by the field party for this survey. A summary of horizontal and vertical control for this survey follows.

### C 1.1 Horizontal Control

The horizontal datum for this project is the North American Datum of 1983 (NAD83), zone 18. Differential GPS (DGPS) was the sole method of positioning. Differential corrections from Driver, VA (kHz 289) were used during this survey.

No horizontal control stations were established by the field party for this survey.



## C 1.2 Vertical Control

The vertical datum for this project is Mean Lower-Low Water (MLLW). The operating National Water Level Observation Network (NWLON) stations at Sewells Point, Hampton Roads, VA (863-8610) and Chesapeake Bay Bridge Tunnel, VA (863-8863) serve as datum control for D00151. A request for delivery of final approved (verified) tides for this survey was forwarded to N/OPS1 on 18 November 2009 in accordance with the FPM and project letter instructions. Final tidal zoning was received on 10 December, 2009, and was applied with verified water levels on Dec 10, 2009.

## D. RESULTS AND RECOMMENDATIONS

### D.1 Chart Comparison

Survey D00151 was compared with the charts listed in table 5 and the corresponding ENC in the common areas. Chart comparisons were performed in CARIS HIPS and CARIS BASE Editor.

Chart	Edition/Date	Corr. For NM	Corr. For LNM	Scale
12245	67 <sup>th</sup> Ed., Aug./08	Aug. 30/08	Aug. 26/08	1:20,000
12253	46 <sup>th</sup> Ed., Aug./08	Aug. 16/08	Aug. 12/08	1:20,000
12254	48 <sup>th</sup> Ed., Mar./09	Mar. 21/09	Mar. 17/09	1:20,000
12256	16 <sup>th</sup> Ed., Mar./09	Mar. 21/09	Mar. 17/09	1:20,000
12222	51 <sup>st</sup> Ed., Jan./09	Jan. 17/09	Jan. 13/09	1:40,000
12208	13 <sup>th</sup> Ed., Aug./08	Aug. 09/08	Jul. 29/08	1:50,000
12221	80 <sup>th</sup> Ed., Jan./09	Jan 17/09	Jan 13/09	1:80,000

**Table 5: Chart Editions**

#### D 1.1 Chart 12245 Comparison

In general, the soundings agree to within 2 feet. Where there are differences, charted soundings tend to be more shoal. An area of shoaling exists north of the Norfolk International Terminal Pier 2, as soundings indicate 29ft in the vicinity of a charted 36ft sounding. Recommend further survey be performed in this area. ENC USVA15M is equivalent to this chart and compares equally in the common areas. *Concur.*

#### D 1.2 Chart 12253 Comparison

In general, the soundings agree to within 2 feet. Where there are differences, charted soundings tend to be more shoal. A 24ft sounding exists in the vicinity of a charted 32ft sounding South of the Lamberts Point Terminal Pier P. Recommend further survey be performed in this area. ENC USVA17M is equivalent to this chart and compares equally in the common areas. *Concur.*

#### D 1.2 Chart 12254 Comparison

In general, the soundings agree to within 2 feet. Where there are differences, charted soundings tend to be more shoal. *Concur.*

### **D 1.3 Chart 12256 Comparison**

In general, the soundings agree to within 2 feet. Where there are differences, charted soundings tend to be more shoal. *Concur.*

### **D 1.4 Chart 12222 Comparison**

In general, the soundings agree to within 2 feet. Where there are differences, charted soundings tend to be more shoal. See also the charted features section D.2.5 for a discussion of the Chesapeake Channel tunnel of the Chesapeake Bay Bridge Tunnel. *Concur.*

### **D 1.5 Chart 12208 Comparison**

In general, the soundings agree to within 2 feet. Where there are differences, charted soundings tend to be more shoal. *Concur.*

### **D 1.5 Chart 12221 Comparison**

In general, the soundings agree to within 2 feet. Where there are differences, charted soundings tend to be more shoal. *Concur.*

### **D 1.6 ENC US5VA11M Comparison**

In general, the soundings agree to within .5 meter. Where there are differences charted soundings tend to be more shoal. *Concur.*

### **D 1.7 ENC US5VA13M Comparison**

In general, the soundings agree to within .5 meter. Where there are differences charted soundings tend to be more shoal. *Concur.*

### **D 1.8 ENC US5VA19M Comparison**

In general, the soundings agree to within .5 meter. Where there are differences charted soundings tend to be more shoal. *Concur.*

### **D 1.9 ENC US5VA20M Comparison**

In general, the soundings agree to within .5 meter. Where there are differences charted soundings tend to be more shoal *Concur.*

## **D.2 Additional Results**

### **D.2.1 Automated Wreck and Obstruction Information Service (AWOIS) Items**

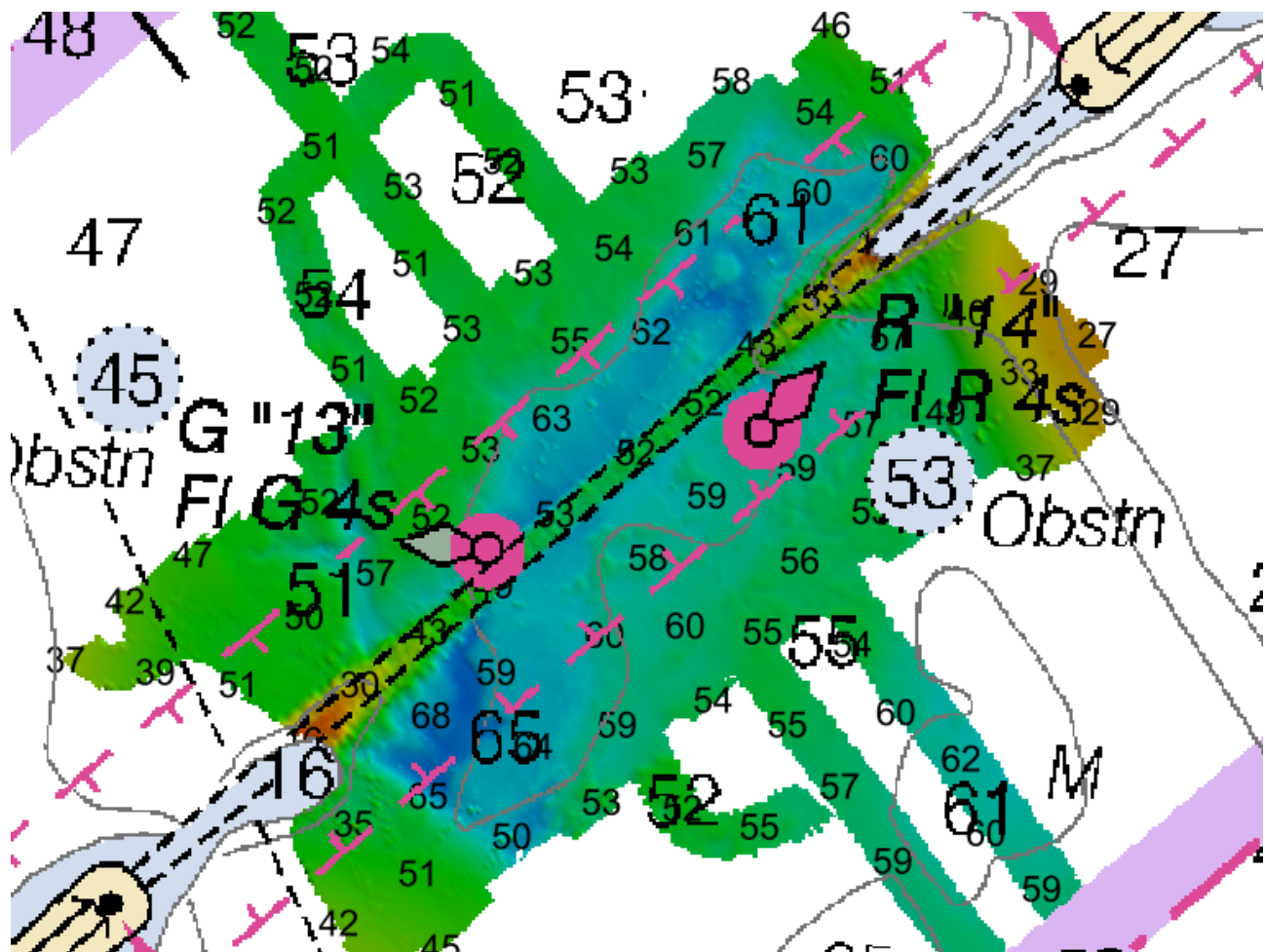
Not applicable to this survey.

#### D.2.4 Shoreline

No shoreline was acquired during survey D00151.

#### D.2.5 Charted Features

In the months prior to this survey, additional riprap was added over the Chesapeake Channel of the Chesapeake Bay Bridge Tunnel to protect the tunnel from erosion. A full Multibeam investigation was done over the tunnel. The hydrographer recommends that the contours and soundings on the chart be updated to reflect the new bathymetry in the vicinity of the tunnel. *Concur.*



#### D.2.6 Charted Pipelines and Cables

Not applicable to this survey.

#### D.2.7 Bridges, Ferry Routes, and Overhead Cables

There are no ferry routes, bridges, or overhead cable crossings within the limits of the survey.

### D.3 Dangers to Navigation and Shoals

#### D 3.1 Dangers to Navigation

One danger to navigation was found and reported to NOAA's Office of Coast Survey.

#### D 3.2 Shoals

Two areas within the Northeast Approach channel indicate shoaling. The 33ft is addressed as a DtoN above. See figure 3.

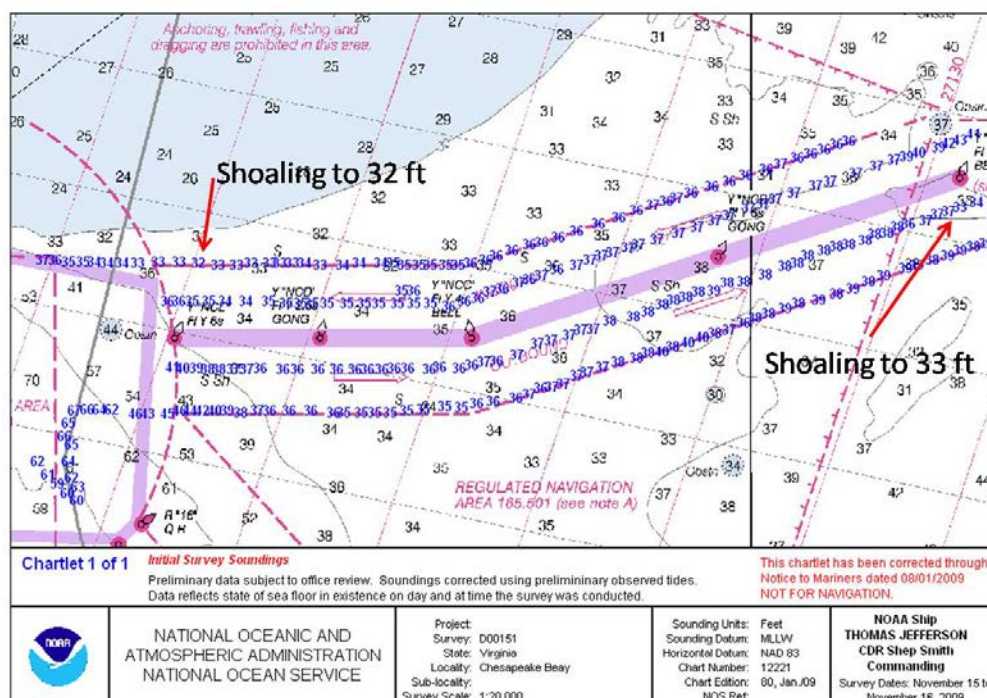


Figure 3: Northeast Approach Shoaling

#### D.4 Aids to Navigation

During survey operations in Lynnhaven Inlet Channel, Buoy Red "4" was observed 500m WSW of its charted location. Recommend verification of current location with USCG.

#### D.5 Coast Pilot Information

The Hydrographer has no recommendations for changes or addenda to the Coast Pilot.

#### D.6 Miscellaneous

##### Bottom Samples

No Bottom samples were collected for this survey.

**Environmental Conditions and Notes**

No unusual environmental conditions were observed in any of the survey areas.

**D.8 Adequacy of Survey**

This survey was conducted as a reconnaissance survey, and was not intended to supersede the chart in common area. The hydrographer recommends that individual shoal soundings or features be selected from this survey and added to the chart as appropriate. *Concur.*

**Summary and Recommendations for Additional Work**

An area of shoaling exists north of the Norfolk International Terminal Pier 2, as soundings indicate 29ft in the vicinity of a charted 36ft sounding. Recommend further survey be performed in this area. *Concur.*

A 24ft sounding exists in the vicinity of a charted 32ft sounding South of the Lamberts Point Terminal Pier P. Recommend further survey be performed in this area. *Concur.*

## E. APPROVAL

As Lead Hydrographer, I have ensured that standard field surveying and processing procedures were followed in producing this examination in accordance with the Office of Coast Survey Hydrographic Surveys Division's *Field Procedures Manual*, and NOS *Hydrographic Surveys Specifications and Deliverables*. Field operations for this basic hydrographic survey were conducted under my daily supervision with frequent checks of progress and adequacy.

All field sheets, this Descriptive Report, and all accompanying records and data are approved. All records are forwarded for final review and processing to N/CS33, Atlantic Hydrographic Branch.

The Data Acquisition and Processing Report for S-D947-TJ-09 is submitted separately and contains additional information relevant to this survey.

Approved and Forwarded:

 Mark Blankenship  
2009.12.16  
21:17:11 Z

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LT Mark Blankenship, NOAA  
Field Operations Officer


 Digitally signed by  
Shepard Smith  
Date: 2009.12.16 16:34:42  
-05'00'

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CDR Shepard M. Smith, NOAA  
Commanding Officer

In addition, the following individuals were responsible for overseeing data acquisition and processing of this survey:

Survey Managers:

 Ryan Wartick  
2009.12.16  
21:15:15 Z

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ENS Ryan A. Wartick, NOAA  
Junior Officer

 daniel wright  
2009.12.16  
21:16:24 Z

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Daniel B. Wright, NOAA  
Chief Hydrographic Survey Technician

## **Appendix I**

### **Dangers to Navigation**

**One Danger to navigation was reported for survey D00151.**



# D00151\_DTON\_report

**Registry Number:** D00151  
**State:** Virginia  
**Locality:** Chesapeake Bay and Approaches, VA  
**Sub-locality:** Cape Henry to PMT  
**Project Number:** S-D947-TJ-09  
**Survey Date:** 11/16/2009

## Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
12208	13th	08/01/2008	1:50,000 (12208_1)	[L]NTM: ?
12221	80th	01/01/2009	1:80,000 (12221_1)	[L]NTM: ?
12280	8th	03/01/2008	1:200,000 (12280_2)	[L]NTM: ?
12200	49th	06/01/2007	1:419,706 (12200_1)	[L]NTM: ?
13003	49th	04/01/2007	1:1,200,000 (13003_1)	[L]NTM: ?

\* Correction(s) - *source: last correction applied (last correction reviewed--"cleared date")*

## Features

No.	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	Shoal	10.05 m	36° 57' 18.1" N	075° 48' 11.8" W	---

## **1 - Danger To Navigation**

## 1.1) Profile/Beam - 47890/4 from d00151 / tj\_s222\_reson7125\_stbd / 2009-320 / 101\_0143

### DANGER TO NAVIGATION

#### Survey Summary

**Survey Position:** 36° 57' 18.1" N, 075° 48' 11.8" W  
**Least Depth:** 10.05 m (= 32.97 ft = 5.495 fm = 5 fm 2.97 ft)  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh)  $\pm 1.003$  m ; TVU (TPEv)  $\pm 0.224$  m  
**Timestamp:** 2009-320.02:20:56.228 (11/16/2009)  
**Survey Line:** d00151 / tj\_s222\_reson7125\_stbd / 2009-320 / 101\_0143  
**Profile/Beam:** 47890/4  
**Charts Affected:** 12208\_1, 12221\_1, 12280\_2, 12200\_1, 13003\_1

#### Remarks:

Sounding is Shoal of the charted depth.

#### Feature Correlation

Address	Feature	Range	Azimuth	Status
d00151/tj_s222_reson7125_stbd/2009-320/101_0143	47890/4	0.00	000.0	Primary

#### Hydrographer Recommendations

Chart per data

#### Cartographically-Rounded Depth (Affected Charts):

33ft (12208\_1, 12221\_1, 12280\_2)

5 ½fm (12200\_1, 13003\_1)

#### S-57 Data

**Geo object 1:** Sounding (SOUNDG)  
**Attributes:** SORDAT - 20091116  
 SORIND - us,us,nsurf,D00151

Concur with clarification. Not shown on chart 12208 Ed 14. Office processing determined that the position and least depth are different from the initial DtoN submission to MCD. Chart sounding, least depth 33ft, at the present survey position in 36-57-18.12N, 75-48-11.78W.

**Subject:** D00151 DTON

**From:** "mark.blankenship" <mark.blankenship@noaa.gov>

**Date:** Wed, 18 Nov 2009 19:57:48 +0000

**To:** mcd.dton@noaa.gov

**CC:** "co >> \"co.thomas.jefferson\"<co.thomas.jefferson@noaa.gov>, foo.thomas.jefferson@noaa.gov, daniel wright <daniel.wright@noaa.gov>, ryan.wartick@noaa.gov

Attached are the DTON files generated by pydro for a shoal covered by survey D00151, project S-D947-TJ-09.  
LT Blankenship

<b>D00151_DTON_Report.zip</b>	<b>Content-Type:</b> application/x-zip-compressed <b>Content-Encoding:</b> base64
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## **Appendix II**

### **Survey Features Report**

#### **1. AWOIS Items**

**-none**

#### **2. Charted Features**

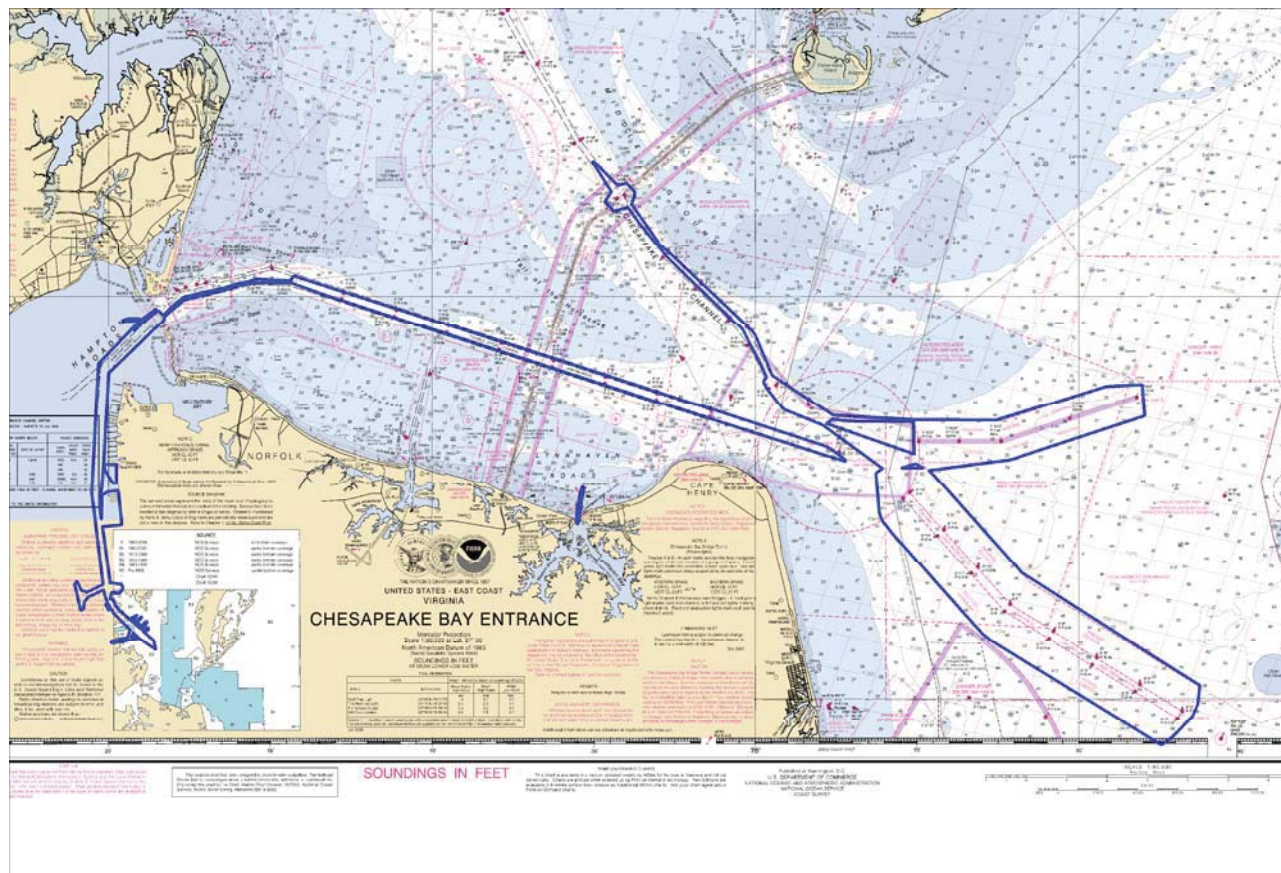
**-none**

#### **3. Uncharted Features**

**-none**

# Appendix III

## Progress Sketch



### NOAA Ship THOMAS JEFFERSON

#### FY 2009 Project Statistics

Project	Location	Month/ Year	LNM VBES		LNM MB		LNM SSS		LNM Combo *		Combo Type ^		Items Investigated	Tide Gauges Installed / Removed	Bottom Samples
			Ship	Launch	Ship	Launch	Ship	Launch	Ship	Launch	Ship	Launch			
S-D947	Thimble Shoals, Va	Nov-09	0	0	122	18	0	0	0	57	0	0	0	0	0

## **Appendix IV**

### **Tides and Water Levels**

- 1. Tide Notes**
- 2. Request for Approved Tides**
- 3. Final Tide Notes**





UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NOAA Ship THOMAS JEFFERSON (MOA-TJ)  
439 West York St  
Norfolk, VA 23510-1145

November 18, 2009

MEMORANDUM FOR: Chief, Requirements and Development Division, N/OPS1

FROM: CDR Shep Smith, NOAA Ship THOMAS JEFFERSON (MOA-TJ)

SUBJECT: Request for Approved Tides/Water Levels

Please provide the following data:

1. Tide Note
2. Final zoning in MapInfo and .MIX format
3. Six Minute Water Level data (Co-ops web site)

Transmit data to the following:

NOAA/NOS/Atlantic Hydrographic Branch  
N/CS33, Building #2  
439 West York Street  
Norfolk, VA 23510  
ATTN: Chief AHB

NOAA Ship Thomas Jefferson  
439 West York Street  
Norfolk, VA 23510  
ATTN: LT Blankenship

These data are required for the processing of the following hydrographic survey:

Project No.: S-D947-TJ-09

Registry No.: D00151

State: Virginia

Locality: Chesapeake Bay and Approaches, VA

Sublocality: Cape Henry to PMT

Attachments containing:

- 1) an Abstract of Times of Hydrography,
- 2) digital MID MIF files of the track lines from Pydro

cc: N/CS33  
MOCA/TJ



Year_DOY	Min Time	Max Time
2009_318	13:36:07	19:13:10
2009_319	14:42:42	23:56:38
2009_320	00:00:00	13:48:56

From Lijuan Huang <Lijuan.Huang@noaa.gov>

Sent Wednesday, December 9, 2009 5:22 pm

To "Gerald.Hovis" <Gerald.Hovis@noaa.gov>

Cc "Kyle.Ward" <Kyle.Ward@noaa.gov> , Jeffrey Ferguson <Jeffrey.Ferguson@noaa.gov> ,  
Jim Crocker <James.M.Crocker@noaa.gov> , "mark.blankenship"  
<Mark.Blankenship@noaa.gov> , Daniel.Wright@noaa.gov ,  
FOO.Thomas.Jefferson@noaa.gov , hpt <NOS.COOPS.HPT@noaa.gov>

Subject Re: Tides Projects loose ends

The error estimation for S-D947-TJ-2009, D00151 is 0.17 m in case you need it for your tide processing.

Lijuan

Gerald.Hovis wrote:

> Kyle

>

> Sorry for the delay on this data but I think we have addressed all of  
> the associated issues. Please call me if there are more issues that  
> need to be addressed.

>

> 240-997-2651

>

> Jerry

>

> S-C944-TJ-09 .zdf file sent

> No error value

> Final Note sent

>

>

> S-D946-TJ-09 Zoning files sent

> No error value

> Final Note sent

>

> S-D947-TJ-09 Chesapeake Bay and Approaches, VA (Nor Easter Response)

> Zoning files sent

> Final note sent

>

>

>

>

>

> Jeffrey Ferguson wrote:

>> Gerry,

>>

>> I'm in Seattle at the moment, do you have any update on these final  
>> water levels for TJ?

>>

>> Many thanks,

>> Jeff

>>

>> ----- Original Message -----

>> Subject: [Fwd: [Fwd: [Fwd: Re: Project Tides]]]

>> Date: Tue, 08 Dec 2009 10:00:50 -0500

>> From: co.thomas.jefferson <CO.Thomas.Jefferson@noaa.gov>

>> <mailto:CO.Thomas.Jefferson@noaa.gov>

>> To: Jeffrey Ferguson <Jeffrey.Ferguson@noaa.gov>

>> <mailto:Jeffrey.Ferguson@noaa.gov>, LCDR Rick Brennan NOAA

>> <Richard.T.Brennan@noaa.gov> <mailto:Richard.T.Brennan@noaa.gov>  
>>  
>>  
>>  
>> Jeff,  
>>  
>> These three surveys are turning into a crisis for us. We really need  
>> to get all our surveys off by the end of next week while we still  
>> have our survey lab and our people, and we have more complicated  
>> surveys that need to occupy our attention at the last minute. It has  
>> been three weeks since the smooth tides request, and for one of the  
>> surveys, several days past the promise date. I asked for them all by  
>> COB yesterday but have not heard anything one way or the other from  
>> Ops or HPT. Please see the attached email for additional information  
>> on the impact of the late tides.  
>>  
>> If we don't get the tides by COB Wednesday 12/9, I plan to request  
>> permission from you to submit the surveys without tides applied. I  
>> know the mess this creates downstream, so I would really prefer not to.  
>> V/R,  
>>  
>> Shep  
>>  
>> ----- Original Message -----  
>> Subject: [Fwd: [Fwd: Re: Project Tides]]  
>> Date: Mon, 07 Dec 2009 09:34:07 -0500  
>> From: mark.blankenship <mark.blankenship@noaa.gov>  
>> <mailto:mark.blankenship@noaa.gov>  
>> To: kyle.ward@noaa.gov <mailto:kyle.ward@noaa.gov>  
>> CC: co.thomas.jefferson <co.thomas.jefferson@noaa.gov>  
>> <mailto:co.thomas.jefferson@noaa.gov>, foo.thomas.jefferson@noaa.gov  
>> <mailto:foo.thomas.jefferson@noaa.gov>  
>>  
>>  
>>  
>> Kyle,  
>> Any word on these surveys yet, I know we just put this out Thursday  
>> but our operating window is shrinking and this is one of our sticking  
>> points for three projects. Thanks.  
>> Mark  
>>  
>>  
>> --  
>> CDR Shepard Smith, NOAA  
>> Commanding Officer  
>> NOAA Ship Thomas Jefferson  
>> 439 West York St  
>> Norfolk, VA 23510  
>> 757-647-0187  
>>  
>> -----  
>>  
>> Subject:  
>> [Fwd: Re: Project Tides]  
>> From:

>> "co.thomas.jefferson" <co.thomas.jefferson@noaa.gov>  
>> Date:  
>> Thu, 03 Dec 2009 14:09:03 -0500  
>> To:  
>> "Kyle.Ward" <Kyle.Ward@noaa.gov>  
>>  
>> To:  
>> "Kyle.Ward" <Kyle.Ward@noaa.gov>  
>> CC:  
>> foo.thomas.jefferson@noaa.gov, James M Crocker  
>> <James.M.Crocker@noaa.gov>, daniel wright <daniel.wright@noaa.gov>  
>>  
>>  
>> Hi Kyle,  
>>  
>> We are tearing apart our whole IT system for the whole month of  
>> January. We need to have ALL our surveys off by December 18 when  
>> people go on leave. We need a week for final processing,  
>> documentation and review. We already have two difficult surveys that  
>> will be the last ones we get off. We can't do all our remaining  
>> surveys at the last minute. We had really hoped to get these three  
>> easy ones off by the end of next week. Currently we have the content  
>> reviews for these scheduled for Mon and Tues of next week in order to  
>> make this deadline. We really need tides for them all by Monday 12/7.  
>>  
>> Tide requests sent:  
>> F00584 11/17/09  
>> F00585 11/17/09  
>> D00151 11/18/09  
>>  
>> Here is our current plan for our 8 remaining surveys (20 are already  
>> submitted to AHB). You can see how the tides delay can have huge  
>> downstream impacts. Red means that phase is taking longer than  
>> expected. If tides are expected to take longer than 14 days from  
>> request, we really need to know, with an estimated delivery date, as  
>> soon as possible.  
>>  
>>  
>>  
>> Best,  
>>  
>> Shep  
>>  
>> ----- Original Message -----  
>> Subject: Re: Project Tides  
>> Date: Thu, 03 Dec 2009 12:49:36 -0500  
>> From: Gerald.Hovis <Gerald.Hovis@noaa.gov>  
>> <mailto:Gerald.Hovis@noaa.gov>  
>> To: Kyle.Ward <Kyle.Ward@noaa.gov> <mailto:Kyle.Ward@noaa.gov>  
>> CC: mark.blankenship <Mark.Blankenship@noaa.gov>  
>> <mailto:Mark.Blankenship@noaa.gov>, Jeremy McHugh  
>> <Jeremy.McHugh@noaa.gov> <mailto:Jeremy.McHugh@noaa.gov>,  
>> james.m.crocker <James.M.Crocker@noaa.gov>  
>> <mailto:James.M.Crocker@noaa.gov>, co.thomas.jefferson  
>> <CO.Thomas.Jefferson@noaa.gov> <mailto:CO.Thomas.Jefferson@noaa.gov>,

>> FOO.Thomas.Jefferson@noaa.gov <mailto:FOO.Thomas.Jefferson@noaa.gov>,  
>> hpt <NOS.COOPS.HPT@noaa.gov> <mailto:NOS.COOPS.HPT@noaa.gov>, James

>> Lewis <James.Lewis@noaa.gov> <mailto:James.Lewis@noaa.gov>,  
>> Minilek.Hailegeberel <Minilek.Hailegeberel@noaa.gov>  
>> <mailto:Minilek.Hailegeberel@noaa.gov>  
>> References: <4B17C651.7040001@noaa.gov>  
>> <mailto:4B17C651.7040001@noaa.gov> <4B17D605.8050804@noaa.gov>  
>> <mailto:4B17D605.8050804@noaa.gov>  
>>  
>>  
>>  
>> Kyle,  
>>  
>> S-C944-TJ-09 COIMBRA wreck investigation...Will be sent out by COB  
>> tomorrow.  
>>  
>> S-D947-TJ-09 Chesapeake Bay and Approaches, VA (Nor Easter Response)  
>> ....Is pending a site report for Sewells point levels and our E-Site  
>> report mechanism had a hiccup over the last couple days and we are  
>> having trouble processing the leveling data. I cannot commit to when  
>> it will be delivered, but it should be by early next week.  
>>  
>> S-D946-TJ-09 Bow Mariner Wreck Investigation.....Not sure of the  
>> priority on this but I can have it to you by the end of next week  
>> ...maybe a bit sooner if you absolutely need it.  
>>  
>>  
>> Jerry  
>>  
>>  
>>  
>>  
>>  
>>  
>> .Ward wrote:  
>> > Jerry,  
>> > Have you received smooth tides request for the following projects?  
>> If > so, how soon can TJ expect them?  
>> >  
>> > S-C944-TJ-09 COIMBRA wreck investigation  
>> > S-D947-TJ-09 Chesapeake Bay and Approaches, VA (Nor Easter Response)  
>> > S-D946-TJ-09 Bow Mariner Wreck Investigation  
>> >  
>> > Kyle  
>> >  
>> > mark.blankenship wrote:  
>> >> Jeremy,  
>> >> Congrats on the new job, enjoy Reston.  
>> >>  
>> >> We have not yet received the smooth tides for the three additional  
>> >> projects we picked up at the end of the season, F00584 (Coimbra),  
>> >> F00585 (Bow Mariner), and D00151 (Norfolk Nor'easter). If you  
>> could >> check with COOPS to see if they have had a a chance to  
>> generate >> anything we'd appreciate it, thanks.  
>> >>

>> >> Mark  
>>  
>>  
>> --  
>> CDR Shepard Smith, NOAA  
>> Commanding Officer  
>> NOAA Ship Thomas Jefferson  
>> 439 West York St  
>> Norfolk, VA 23510  
>> 757-647-0187  
>

--  
Name: Lijuan Huang  
Title: IMMSG Contractor  
Organization: NOAA/NOS/CO-OPS  
Address: 1305 East-West Highway  
N/OPS3, Sta. 7342, SSMC4  
Silver Spring, MD 20910-3218  
Email: lijuan.huang@noaa.gov  
Phone: 1-301-713-2890 x192



**Subject:** S-D947-TJ-09 D00151 Smooth Tide request  
**From:** "mark.blankenship" <Mark.Blankenship@noaa.gov>  
**Date:** Wed, 18 Nov 2009 11:57:53 -0500  
**To:** smooth.tides@noaa.gov  
**CC:** co.thomas.jefferson@noaa.gov, foo.thomas.jefferson@noaa.gov, "ryan.wartick" <ryan.wartick@noaa.gov>, Daniel.Wright@noaa.gov

Attached is a smooth tide request for project S-D947-TJ-09  
Registry number D00151  
LT Blankenship

<b>D00151_request_for_smooth_tides.zip</b>	<b>Content-Type:</b> application/x-zip-compressed <b>Content-Encoding:</b> base64
--	--



**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
National Ocean Service  
Silver Spring, Maryland 20910

**TIDE NOTE FOR HYDROGRAPHIC SURVEY**

**DATE :** November 20, 2009

**HYDROGRAPHIC BRANCH:** Atlantic  
**HYDROGRAPHIC PROJECT:** S-D947-TJ-2009  
**HYDROGRAPHIC SHEET:** D00151

**LOCALITY:** Cape Henry to PMT, Chesapeake Bay and Approaches, VA  
**TIME PERIOD:** November 14-16, 2009

**TIDE STATION USED:** 863-8610 Sewells Pt, VA  
Lat. 36° 56.8' N Long. 076° 19.8' W  
**PLANE OF REFERENCE (MEAN LOWER LOW WATER):** 0.000 meters  
**HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE:** 0.778 meters

**TIDE STATION USED:** 863-8863 Chesapeake Bay Bridge Tunnel, VA  
Lat. 36° 58.0' N Long. 076° 06.8' W  
**PLANE OF REFERENCE (MEAN LOWER LOW WATER):** 0.000 meters  
**HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE:** 0.814 meters

**REMARKS: RECOMMENDED ZONING**

**Use zone(s) identified as:** JR1, JR6, JR35, JR38, SCB1, SCB4, SCB5,  
SCB6, SCB12, SCB13, SCB14, SCB15, SCB19,  
SCB20, SCB200, SCB201, SA50D, SA50E,  
SA51, SA54, SA54A, & SA56

**Refer to attachments for zoning information.**

**Note 1:** Provided time series data are tabulated in metric units (meters), relative to MLLW and on Greenwich Mean Time on the 1983-2001 National Tidal Datum Epoch (NTDE).

**Note 2:** Use tide data from the appropriate station with applicable zoning correctors for each zone according to the order in which they are listed in the Tidezone corrector file (\*.ZDF). For example, tide station one (TS1) would be the first choice for an applicable zone followed by TS2, etc. when data are not available.



CHIEF, OCEANOGRAPHIC DIVISION



## **Appendix V**

### **Supplemental Survey Records & Correspondence**

**Subject:** Re: Tides Projects loose ends

**From:** Lijuan Huang <Lijuan.Huang@noaa.gov>

**Date:** Wed, 09 Dec 2009 17:22:17 -0500

**To:** "Gerald.Hovis" <Gerald.Hovis@noaa.gov>

**CC:** "Kyle.Ward" <Kyle.Ward@noaa.gov>, Jeffrey Ferguson <Jeffrey.Ferguson@noaa.gov>, Jim Crocker <James.M.Crocker@noaa.gov>, "mark.blankenship" <Mark.Blankenship@noaa.gov>, Daniel.Wright@noaa.gov, FOO.Thomas.Jefferson@noaa.gov, hpt <NOS.COOPS.HPT@noaa.gov>

The error estimation for S-D947-TJ-2009, D00151 is 0.17 m in case you need it for your tide processing.

Lijuan

Gerald.Hovis wrote:

Kyle

Sorry for the delay on this data but I think we have addressed all of the associated issues. Please call me if there are more issues that need to be addressed.

240-997-2651

Jerry

S-C944-TJ-09 .zdf file sent

No error value

Final Note sent

S-D946-TJ-09 Zoning files sent

No error value

Final Note sent

S-D947-TJ-09 Chesapeake Bay and Approaches, VA (Nor Easter Response)

Zoning files sent

Final note sent

Jeffrey Ferguson wrote:

Gerry,

I'm in Seattle at the moment, do you have any update on these final water levels for TJ?

Many thanks,  
Jeff

----- Original Message -----

Subject: [Fwd: [Fwd: [Fwd: Re: Project Tides]]]

Date: Tue, 08 Dec 2009 10:00:50 -0500

From: co.thomas.jefferson <[CO.Thomas.Jefferson@noaa.gov](mailto:CO.Thomas.Jefferson@noaa.gov)>

<<mailto:CO.Thomas.Jefferson@noaa.gov>>

To: Jeffrey Ferguson <[Jeffrey.Ferguson@noaa.gov](mailto:Jeffrey.Ferguson@noaa.gov)>

<<mailto:Jeffrey.Ferguson@noaa.gov>>, LCDR Rick Brennan NOAA

<[Richard.T.Brennan@noaa.gov](mailto:Richard.T.Brennan@noaa.gov)> <<mailto:Richard.T.Brennan@noaa.gov>>

Jeff,

These three surveys are turning into a crisis for us. We really need to get all our surveys off by the end of next week while we still have our survey lab and our people, and we have more complicated surveys that need to occupy our attention at the last minute. It has been three weeks since the smooth tides request, and for

one of the surveys, several days past the promise date. I asked for them all by COB yesterday but have not heard anything one way or the other from Ops or HPT. Please see the attached email for additional information on the impact of the late tides.

If we don't get the tides by COB Wednesday 12/9, I plan to request permission from you to submit the surveys without tides applied. I know the mess this creates downstream, so I would really prefer not to.

V/R,

Shep

----- Original Message -----

Subject: [Fwd: [Fwd: Re: Project Tides]]  
Date: Mon, 07 Dec 2009 09:34:07 -0500  
From: mark.blankenship <[mark.blankenship@noaa.gov](mailto:mark.blankenship@noaa.gov)>  
<<mailto:mark.blankenship@noaa.gov>>  
To: [kyle.ward@noaa.gov](mailto:kyle.ward@noaa.gov) <<mailto:kyle.ward@noaa.gov>>  
CC: co.thomas.jefferson <[co.thomas.jefferson@noaa.gov](mailto:co.thomas.jefferson@noaa.gov)>  
<<mailto:co.thomas.jefferson@noaa.gov>>, [foo.thomas.jefferson@noaa.gov](mailto:foo.thomas.jefferson@noaa.gov)  
<<mailto:foo.thomas.jefferson@noaa.gov>>

Kyle,

Any word on these surveys yet, I know we just put this out Thursday but our operating window is shrinking and this is one of our sticking points for three projects. Thanks.

Mark

--

CDR Shepard Smith, NOAA  
Commanding Officer  
NOAA Ship Thomas Jefferson  
439 West York St  
Norfolk, VA 23510  
757-647-0187

-----  
Subject:  
[Fwd: Re: Project Tides]  
From:  
"co.thomas.jefferson" <[co.thomas.jefferson@noaa.gov](mailto:co.thomas.jefferson@noaa.gov)>  
Date:  
Thu, 03 Dec 2009 14:09:03 -0500  
To:  
"Kyle.Ward" <[Kyle.Ward@noaa.gov](mailto:Kyle.Ward@noaa.gov)>  
To:  
"Kyle.Ward" <[Kyle.Ward@noaa.gov](mailto:Kyle.Ward@noaa.gov)>  
CC:  
[foo.thomas.jefferson@noaa.gov](mailto:foo.thomas.jefferson@noaa.gov), James M Crocker <[James.M.Crocker@noaa.gov](mailto:James.M.Crocker@noaa.gov)>, daniel  
wright <[daniel.wright@noaa.gov](mailto:daniel.wright@noaa.gov)>

Hi Kyle,

We are tearing apart our whole IT system for the whole month of January. We need to have ALL our surveys off by December 18 when people go on leave. We need a week for final processing, documentation and review. We already have two difficult surveys that will be the last ones we get off. We can't do all our remaining surveys at the last minute. We had really hoped to get these three easy ones off by the end of next week. Currently we have the content reviews for these scheduled for Mon and Tues of next week in order to make this deadline. We really need tides for them all by Monday 12/7.

Tide requests sent:

F00584 11/17/09  
F00585 11/17/09  
D00151 11/18/09

Here is our current plan for our 8 remaining surveys (20 are already submitted to AHB). You can see how the tides delay can have huge downstream impacts. Red means that phase is taking longer than expected. If tides are expected to take longer than 14 days from request, we really need to know, with an estimated delivery date, as soon as possible.

Best,

Shep

----- Original Message -----

Subject: Re: Project Tides

Date: Thu, 03 Dec 2009 12:49:36 -0500

From: Gerald.Hovis <[Gerald.Hovis@noaa.gov](mailto:Gerald.Hovis@noaa.gov)> <<mailto:Gerald.Hovis@noaa.gov>>

To: Kyle.Ward <[Kyle.Ward@noaa.gov](mailto:Kyle.Ward@noaa.gov)> <<mailto:Kyle.Ward@noaa.gov>>

CC: mark.blankenship <[Mark.Blankenship@noaa.gov](mailto:Mark.Blankenship@noaa.gov)>

<<mailto:Mark.Blankenship@noaa.gov>>, Jeremy McHugh <[Jeremy.McHugh@noaa.gov](mailto:Jeremy.McHugh@noaa.gov)>

<<mailto:Jeremy.McHugh@noaa.gov>>, james.m.crocker <[James.M.Crocker@noaa.gov](mailto:James.M.Crocker@noaa.gov)>

<<mailto:James.M.Crocker@noaa.gov>>, co.thomas.jefferson

<[CO.Thomas.Jefferson@noaa.gov](mailto:CO.Thomas.Jefferson@noaa.gov)> <<mailto:CO.Thomas.Jefferson@noaa.gov>>,

FOO.Thomas.Jefferson@noaa.gov <<mailto:FOO.Thomas.Jefferson@noaa.gov>>, hpt

<[NOS.COOPS.HPT@noaa.gov](mailto:NOS.COOPS.HPT@noaa.gov)> <<mailto:NOS.COOPS.HPT@noaa.gov>>, James Lewis

<[James.Lewis@noaa.gov](mailto:James.Lewis@noaa.gov)> <<mailto:James.Lewis@noaa.gov>>, Minilek.Hailegeberel

<[Minilek.Hailegeberel@noaa.gov](mailto:Minilek.Hailegeberel@noaa.gov)> <<mailto:Minilek.Hailegeberel@noaa.gov>>

References: <[4B17C651.7040001@noaa.gov](mailto:4B17C651.7040001@noaa.gov)> <<mailto:4B17C651.7040001@noaa.gov>>

<[4B17D605.8050804@noaa.gov](mailto:4B17D605.8050804@noaa.gov)> <<mailto:4B17D605.8050804@noaa.gov>>

Kyle,

S-C944-TJ-09 COIMBRA wreck investigation...Will be sent out by COB tomorrow.

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Jerry

.Ward wrote:

> Jerry,

> Have you received smooth tides request for the following projects? If > so, how soon can TJ expect them?

>

> S-C944-TJ-09 COIMBRA wreck investigation

> S-D947-TJ-09 Chesapeake Bay and Approaches, VA (Nor Easter Response)

> S-D946-TJ-09 Bow Mariner Wreck Investigation

>

> Kyle

>

> mark.blankenship wrote:

>> Jeremy,

>> Congrats on the new job, enjoy Reston.

>>

>> We have not yet received the smooth tides for the three additional >> projects we picked up at the end of the season, F00584 (Coimbra), >> F00585 (Bow Mariner), and D00151 (Norfolk Nor'easter). If you could >> check with COOPS to see if they have had a a chance to generate >> anything we'd appreciate it, thanks.

>>

>> Mark

--

CDR Shepard Smith, NOAA  
Commanding Officer  
NOAA Ship Thomas Jefferson  
439 West York St  
Norfolk, VA 23510  
757-647-0187

--

Name: Lijuan Huang  
Title: IMSG Contractor  
Organization: NOAA/NOS/CO-OPS  
Address: 1305 East-West Highway  
N/OPS3, Sta. 7342, SSMC4  
Silver Spring, MD 20910-3218  
Email: [lijuan.huang@noaa.gov](mailto:lijuan.huang@noaa.gov)  
Phone: 1-301-713-2890 x192

**Subject:** RE: Lynnhaven Inlet

**From:** "Williams, Raymond J NAO" <Raymond.J.Williams@usace.army.mil>

**Date:** Sun, 15 Nov 2009 13:13:15 -0500

**To:** "co.thomas.jefferson" <CO.Thomas.Jefferson@noaa.gov>, "mark.blankenship" <Mark.Blankenship@noaa.gov>

**CC:** "Legaspi, Eric C NAO" <Eric.C.Legaspi@usace.army.mil>, "Sweitzer, Robert W NAO"

<Robert.W.Sweitzer@usace.army.mil>, "Williams, Michael A NAO" <Michael.A.Williams@usace.army.mil>

Shep,

Excellent info.

Mark - I have xyz data for Atlantic Ocean Channel (2007 survey) and Cape Henry Channel (2008 survey). The AOC survey is 5' X 5' multibeam data and the CHC survey data is 200' cross-sectional cut from 5' X 5' multibeam data. I could email the CHC data, but the AOC data files are too big. How would be the best way to get this data to you?

Ray

---

**From:** co.thomas.jefferson [mailto:CO.Thomas.Jefferson@noaa.gov]

**Sent:** Sunday, November 15, 2009 12:41 PM

**To:**

Sarah Mrozek; tiffany.a.duffy@uscg.mil; john.r.walters@uscg.mil; Howard Danley; Jeffrey Ferguson; James M Crocker; Williams, Raymond J NAO; Legaspi, Eric C NAO; Richard.T.Brennan@noaa.gov

**Subject:** Lynnhaven Inlet

All,

The TJ Launches ran side scan sonar in the channel from sea to the bridge in Lynnhaven Inlet. There was no indication of a dredge pipe. However, *inside* the bridge, there is a dredge pipe that appears to be in the process of being recovered. It runs from the east end of the bridge south and appears to be submerged as it crosses the channel.

Red nun number "4" is about 500 yards off station to the west, and appears to be moored there. There are two small (less than a meter high) objects in the channel that the launch is currently investigating, but they do not appear to be a hazard to navigation. The launch observed some shoaling on the west side of the channel, but not enough to be of concern to the pilot boats.

The Thomas Jefferson herself is working in the Thimble Shoal Channel and will be doing the southeast approach buoy run in daylight. The launches are heading up to the Cape Henry Channel next.

V/R,

Shep

--

CDR Shepard Smith, NOAA  
Commanding Officer  
NOAA Ship Thomas Jefferson  
439 West York St  
Norfolk, VA 23510  
757-647-0187



**Subject:** Re: Crossline comparison

**From:** Chris van Westendorp <Christiaan.VanWestendorp@noaa.gov>

**Date:** Thu, 10 Sep 2009 13:00:35 -0400

**To:** "mark.blankenship" <Mark.Blankenship@noaa.gov>

**CC:** LCDR Rick Brennan <Richard.T.Brennan@noaa.gov>, Castle Parker <Castle.E.Parker@noaa.gov>, Edward Owens <Edward.Owens@noaa.gov>, LT Jasper Schaer <jasper.schaer@noaa.gov>, CDR Shep Smith <Shep.Smith@noaa.gov>, Daniel Wright <Daniel.Wright@noaa.gov>

Mark,

Per 5.1.4.3 of the HSSD, AHB authorizes TJ to use the Standard Deviation layer to conduct surface difference comparison and analysis on future survey submissions of multibeam data. This meets the crossline comparison requirement laid out in HSSD.

Please let me know if you have any questions or need for further clarification.

R/

LCDR Chris van Westendorp, NOAA

mark.blankenship wrote:

Chris,

You mentioned in the meeting today that AHB was not going to require the multiple CUBE surface comparison, instead allowing us to use a single surface standard deviation layer to do our checks with. Is there any memo coming out for that?

Mark

LCDR Chris van Westendorp <[christiaan.vanwestendorp@noaa.gov](mailto:christiaan.vanwestendorp@noaa.gov)>

Atlantic Hydrographic Branch

NOAA OCS

**Subject:** 1600 Meeting, change of priorities

**From:** "co.thomas.jefferson" <co.thomas.jefferson@noaa.gov>

**Date:** Sat, 14 Nov 2009 17:18:56 -0500

**To:** Jeffrey Ferguson <Jeffrey.Ferguson@noaa.gov>, Mike Devany <Mike.Devany@noaa.gov>, co.moc.atlantic@noaa.gov, foo.thomas.jefferson@noaa.gov, James M Crocker <James.M.Crocker@noaa.gov>, Howard Danley <Howard.Danley@noaa.gov>, "LCDR Rick Brennan NOAA" <Richard.T.Brennan@noaa.gov>

**CC:** xo.thomas.jefferson@noaa.gov

All,

TJ launches surveyed in the Elizabeth River, Norfolk from PMT to the Hampton Roads Bridge Tunnel with 100% SSS. They found no uncharted dangerous obstructions. Based on this information, and the lack of reports of other major debris, the focus of TJ's work was shifted from Sidescan for obstructions to multibeam for bathymetry.

Our tasking for tomorrow:

Thimble Shoal Channel and Cape Henry Channel-multibeam line at the toe on each side of the channel, just inside the buoy line. Develop any areas of shoaling.  
Southeast approach-line at each edge of the lanes, one in each lane centerline, and one at the toe on each side of the deep water route.  
Eastern approach-line at each edge of the lanes and one in each centerline.  
Precautionary area-log data as we cross it, but no particular requirement.  
Lynnhaven Inlet-Locate the dredge pipes and any other construction debris, locate and get least depth over the buoy block of the missing nun buoy.  
Chesapeake Channel over the tunnel of the CBBT-the tunnel was recently armored with dumped rock and a new least depth is needed.

The scope of work has diminished enough that we waved off the BHII. I expect TJ will work until late tomorrow night, anchor up and return to MOC on Monday after we are sure no more developments are necessary.

Shep

--

CDR Shepard Smith, NOAA  
Commanding Officer  
NOAA Ship Thomas Jefferson  
439 West York St  
Norfolk, VA 23510  
757-647-0187

**Subject:** [Fwd: NorEaster AHB support and D00151 survey number]  
**From:** "co.thomas.jefferson" <co.thomas.jefferson@noaa.gov>  
**Date:** Sat, 14 Nov 2009 15:42:44 -0500  
**To:** foo.thomas.jefferson@noaa.gov, daniel.wright@noaa.gov>

Registry Number.

----- Original Message -----

**Subject:** NorEaster AHB support and D00151 survey number  
**Date:** Sat, 14 Nov 2009 14:22:28 -0500  
**From:** Castle.E.Parker <Castle.E.Parker@noaa.gov>  
**Organization:** NOAA  
**To:** Shep Smith <Shep.Smith@noaa.gov>, \_NMAO MOA CO Thomas Jefferson <CO.Thomas.Jefferson@noaa.gov>, Jennifer Pralgo <Jennifer.Pralgo@noaa.gov>  
**CC:** Richard T Brennan <Richard.T.Brennan@noaa.gov>, \_NMAO MOA XO Thomas Jefferson <XO.Thomas.Jefferson@noaa.gov>

CO,  
A project has been added and is D00151. Survey Tracker info is as follow in the image below. The name of the project will probably change but for now I called it S-OPR-E\_NorEaster-TJ-09.

As of right now, Sarah Eggleston and Nikki Trenholm will be accompanying the TJ. I've been attempting to get in touch with Wes Kitt but unable to do so. The next person on the list is Vanessa Self, but have not talked with her.

XO, I don't know how three females would impact your berthing situation. I haven't been able to get a third person as of this time but will keep you posted on the developments.

Regards,  
Gene

Add Project	Add Survey	Search/Edit	Customize	SurveyTrackerViews	SharedViews	Read Me
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Success - Survey Added						
Survey Number	D00151					
Project Number	S-OPR-E_NorEaster-TJ-09					
Survey Type	D					
Locality	Approaches to Ches Bay to PMT					
Sub Locality	Cape Henry to PMT					
State	Virginia,					
Scale	10,000					
Sheet						
Max/North Latitude (DDMMSS.S)	365500.0	Min/South Latitude (DDMMSS.S)				
Max/West Longitude (DDMMSS.S)	0762035.0	Min/East Longitude (DDMMSS.S)				
Affected Charts	12200 12205 12206 12207 12208 12221 12222 12245 12253 12254 12255 12256 12280 13003					
ESIM	135.699996948242					
Field Unit	NOAA SHIP THOMAS JEFFERSON					
Processing Center	AHB					
Comments	This survey is in response to the Nor 'Easter Nov. 2009 as requested by USCG, USACE, and VA and MD Pilot. The purpose is to clear the channels and locate any shoalin obstruction that would prohibit marine traffic.					
<a href="#">Add another survey</a>						
<a href="#">Back To Search Results</a>						

--  
CDR Shepard Smith, NOAA  
Commanding Officer  
NOAA Ship Thomas Jefferson  
439 West York St  
Norfolk, VA 23510  
757-647-0187

**Subject:** [Fwd: [Fwd: [Fwd: Re: OCS sitrep 1000 Nov 14, 2009]]]  
**From:** "mark.blankenship" <mark.blankenship@noaa.gov>  
**Date:** Sat, 14 Nov 2009 17:24:52 -0500  
**To:** Peter.stone@noaa.gov  
**CC:** "co.thomas.jefferson" <co.thomas.jefferson@noaa.gov>, foo.thomas.jefferson@noaa.gov

Mr. Stone  
The Thomas Jefferson is currently preparing to transit offshore to perform some survey work post the storm that rolled through. I was checking the tide gauges in the area and noticed the Rudee Inlet gauge was not transmitting data, it might just be the transmitter was damaged. If you could please have someone look into this we would appreciate the help.  
R/  
LT Mark Blankenship  
Field Operations Officer  
NOAA Ship Thomas Jefferson (S222)

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**Subject:** [Fwd: [Fwd: Re: OCS sitrep 1000 Nov 14, 2009]]  
**From:** "co.thomas.jefferson" <co.thomas.jefferson@noaa.gov>  
**Date:** Sat, 14 Nov 2009 17:03:54 -0500  
**To:** foo.thomas.jefferson@noaa.gov

----- Original Message -----

**Subject:**[Fwd: Re: OCS sitrep 1000 Nov 14, 2009]  
**Date:**Sat, 14 Nov 2009 13:00:13 -0500  
**From:**Jeffrey Ferguson <[Jeffrey.Ferguson@noaa.gov](mailto:Jeffrey.Ferguson@noaa.gov)>  
**To:**\_NOS.CO-OPS.HTP <[NOS.COOPS.HPT@noaa.gov](mailto:NOS.COOPS.HPT@noaa.gov)>, Peter Stone <[Peter.Stone@noaa.gov](mailto:Peter.Stone@noaa.gov)>, Gerald Hovis <[Gerald.Hovis@noaa.gov](mailto:Gerald.Hovis@noaa.gov)>, Samant <[Manoj.Samant@noaa.gov](mailto:Manoj.Samant@noaa.gov)>  
**CC:**Jim Crocker <[James.M.Crocker@noaa.gov](mailto:James.M.Crocker@noaa.gov)>, Kyle Ward <[Kyle.Ward@noaa.gov](mailto:Kyle.Ward@noaa.gov)>, CO Thomas Jefferson <[CO.Thomas.Jefferson@noaa.gov](mailto:CO.Thomas.Jefferson@noaa.gov)>, Richard T Brennan <[Richard.T.Brennan@noaa.gov](mailto:Richard.T.Brennan@noaa.gov)>

CO-OPS,

Heads up, due to the storm in Norfolk, the port is closed and we have received requests for emergency surveys to ensure no obstructions or shoaling has occurred in the main navigation channels.

TJ launches are working today (Saturday) and the ship plans to get underway tomorrow (Sunday) to conduct survey operations.

A scan of tides on-line shows that most gages in the area are currently in operation (Sewells Pt, Chesapeake Bay Tunnel, Money Pt, and Keptopeke). The TJ will begin operations using zoning and/or TCARI grids that were provided for their Chesapeake Bay projects from earlier this year and last year.

A graphic of the actual survey areas will be available shortly. If you feel that the preliminary tide info should be changed, please let us know ASAP. Also, a final water level request may be forthcoming once the survey is complete.

On Monday we will complete the required "emergency" tide support request forms and discuss in more detail.

I'll provide more info as it becomes available.

Many thanks,  
Jeff

----- Original Message -----

**Subject:**Re: OCS sitrep 1000 Nov 14, 2009  
**Date:**Sat, 14 Nov 2009 11:05:14 -0500  
**From:**Howard.Danley@noaa.gov  
**To:**Eli.Reinharz@noaa.gov, Jeffrey.Ferguson@noaa.gov  
**CC:**John.Lowell@noaa.gov, Kathryn.Ries@noaa.gov, Lawrence.T.Krepp@noaa.gov, John.Nyberg@noaa.gov, Sarah.Mrozek@noaa.gov, Ed.Martin@noaa.gov  
**References:**<[886d52041fb492c0.4afdda76@noaa.gov](mailto:886d52041fb492c0.4afdda76@noaa.gov)>

Eli,

Conference call with USCG, Corps, and NOAA this morning. Sector Hampton Roads has gone to Condition Yankee with restrictions. Vessel transits will be all CG reported a coffer dam lost from a barge near Surrey power plant. A dredge in Lynnhaven Inlet has lost dredge pipe. Side scan will be needed to search Two launches from NOAA ship Thomas Jefferson are working in the Elizabeth River today conducting side scan and multibeam surveys of the ship channel and t Plan is for Thomas Jefferson to get underway tomorrow to survey offshore. Thimble Shoals Channel, Cape Henry Channel, and the Eastern approach are the pri USACE's large survey vessel's multibeam is not operational. Too rough for smaller boats today.

Sea conditions in Chesapeake Bay may abate enough for NOAA vessel Bay Hydro II to get underway tomorrow.

Next conference call at 4:00 PM today.

Howard

--  
CDR Shepard Smith, NOAA  
Commanding Officer  
NOAA Ship Thomas Jefferson  
439 West York St  
Norfolk, VA 23510  
757-647-0187

<b>[Fwd: [Fwd: Re: OCS sitrep 1000 Nov 14, 2009]].eml</b>	<b>Content-Type:</b> message/rfc822 <b>Content-Encoding:</b> 7bit
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