

**F00553**

NOAA FORM 76-35A  U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SURVEY  <b>DESCRIPTIVE REPORT</b>	
<i>Type of Survey:</i>	<b>Field Examination</b>
<i>Registry Number:</i>	<b>F00553</b>
<b>LOCALITY</b>	
<i>State:</i>	<b>New Hampshire</b>
<i>General Locality:</i>	<b>Portsmouth</b>
<i>Sub-locality:</i>	<b>Portsmouth Harbor and Piscataqua River</b>
<b>2008</b>	
CHIEF OF PARTY <b>LT(jg) Matthew Jaskoski, NOAA</b>	
DATE	LIBRARY & ARCHIVES

NOAA FORM 77-28 (11-72)	U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION	REGISTRY NUMBER:  <p style="text-align: center; font-size: 1.2em;"><b>F00553</b></p>																																																												
<p style="font-size: 1.5em; font-weight: bold;">HYDROGRAPHIC TITLE SHEET</p>																																																														
INSTRUCTIONS:    The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.																																																														
<table style="width: 100%; border: none;"> <tr> <td style="width: 20%;">State:</td> <td colspan="3"><b>New Hampshire</b></td> </tr> <tr> <td>General Locality:</td> <td colspan="3"><b>Portsmouth</b></td> </tr> <tr> <td>Sub-Locality:</td> <td colspan="3"><b>Portsmouth Harbor and Piscataqua River</b></td> </tr> <tr> <td>Scale:</td> <td><b>1:10,000</b></td> <td>Date of Survey:</td> <td><b>05/21/08 to 05/29/08</b></td> </tr> <tr> <td>Instructions Dated:</td> <td><b>N/A</b></td> <td>Project Number:</td> <td><b>OPR-A321-NRT5-08</b></td> </tr> <tr> <td>Change No.1 Dated:</td> <td colspan="3"><b>N/A</b></td> </tr> <tr> <td>Change No.2 Dated:</td> <td colspan="3"><b>N/A</b></td> </tr> <tr> <td>Vessel:</td> <td colspan="3"><b>NOAA NRT-5, S3002</b></td> </tr> <tr> <td>Chief of Party:</td> <td colspan="3"><b>LT(jg) Matthew Jaskoski, NOAA</b></td> </tr> <tr> <td>Surveyed by:</td> <td colspan="3"><b>NOAA Navigation Response Team 5 Personnel</b></td> </tr> <tr> <td>Soundings by:</td> <td colspan="3"><b>Odom Echotrac CV/200 Kongsberg Simrad EM3002/3000</b></td> </tr> <tr> <td>Graphic record checked by:</td> <td colspan="3"><b>N/A</b></td> </tr> <tr> <td>Protracted by:</td> <td><b>N/A</b></td> <td>Automated Plot:</td> <td><b>N/A</b></td> </tr> <tr> <td>Verification by:</td> <td colspan="3"><b>Atlantic Hydrographic Branch Personnel</b></td> </tr> <tr> <td>Soundings in:</td> <td colspan="3"><b>Meters <i>F</i>et at MLLW</b></td> </tr> </table>			State:	<b>New Hampshire</b>			General Locality:	<b>Portsmouth</b>			Sub-Locality:	<b>Portsmouth Harbor and Piscataqua River</b>			Scale:	<b>1:10,000</b>	Date of Survey:	<b>05/21/08 to 05/29/08</b>	Instructions Dated:	<b>N/A</b>	Project Number:	<b>OPR-A321-NRT5-08</b>	Change No.1 Dated:	<b>N/A</b>			Change No.2 Dated:	<b>N/A</b>			Vessel:	<b>NOAA NRT-5, S3002</b>			Chief of Party:	<b>LT(jg) Matthew Jaskoski, NOAA</b>			Surveyed by:	<b>NOAA Navigation Response Team 5 Personnel</b>			Soundings by:	<b>Odom Echotrac CV/200 Kongsberg Simrad EM3002/3000</b>			Graphic record checked by:	<b>N/A</b>			Protracted by:	<b>N/A</b>	Automated Plot:	<b>N/A</b>	Verification by:	<b>Atlantic Hydrographic Branch Personnel</b>			Soundings in:	<b>Meters <i>F</i>et at MLLW</b>		
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Remarks: 1) <i>All Times are UTC.</i> 2) <i>This is a Basic Navigable Area Hydrographic Survey.</i> 3) <i>Projection is UTM Zone 19.</i> <i>Red, bold, italic comments were made during office verification.</i>																																																														

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**DESCRIPTIVE REPORT**  
to accompany  
HYDROGRAPHIC SURVEY F00553

Scale of Survey: 1:10,000  
Year of Survey: 2008  
NOAA Navigation Response Team 5  
LT(jg) Matthew Jaskoski, OIC

**A. AREA SURVEYED**

This hydrographic survey was conducted in accordance with Hydrographic Survey Project Instructions for project OPR-A321-NRT5-08\*, F00553, Portsmouth Harbor, NH. The original instructions are dated May 14, 2008.

This Descriptive Report pertains to areas within Portsmouth Harbor and on the Piscatiqua River. The assigned registry number for this field examination is F00553, as prescribed in the Project Instructions\*.

The purpose of the CY 2008 operations to update National Ocean Service (NOS) nautical charts in the area was twofold; 1) to conduct ENC verification and 2) provide contemporary hydrographic survey data in areas of interest to the local and U.S. Navy harbor pilots.

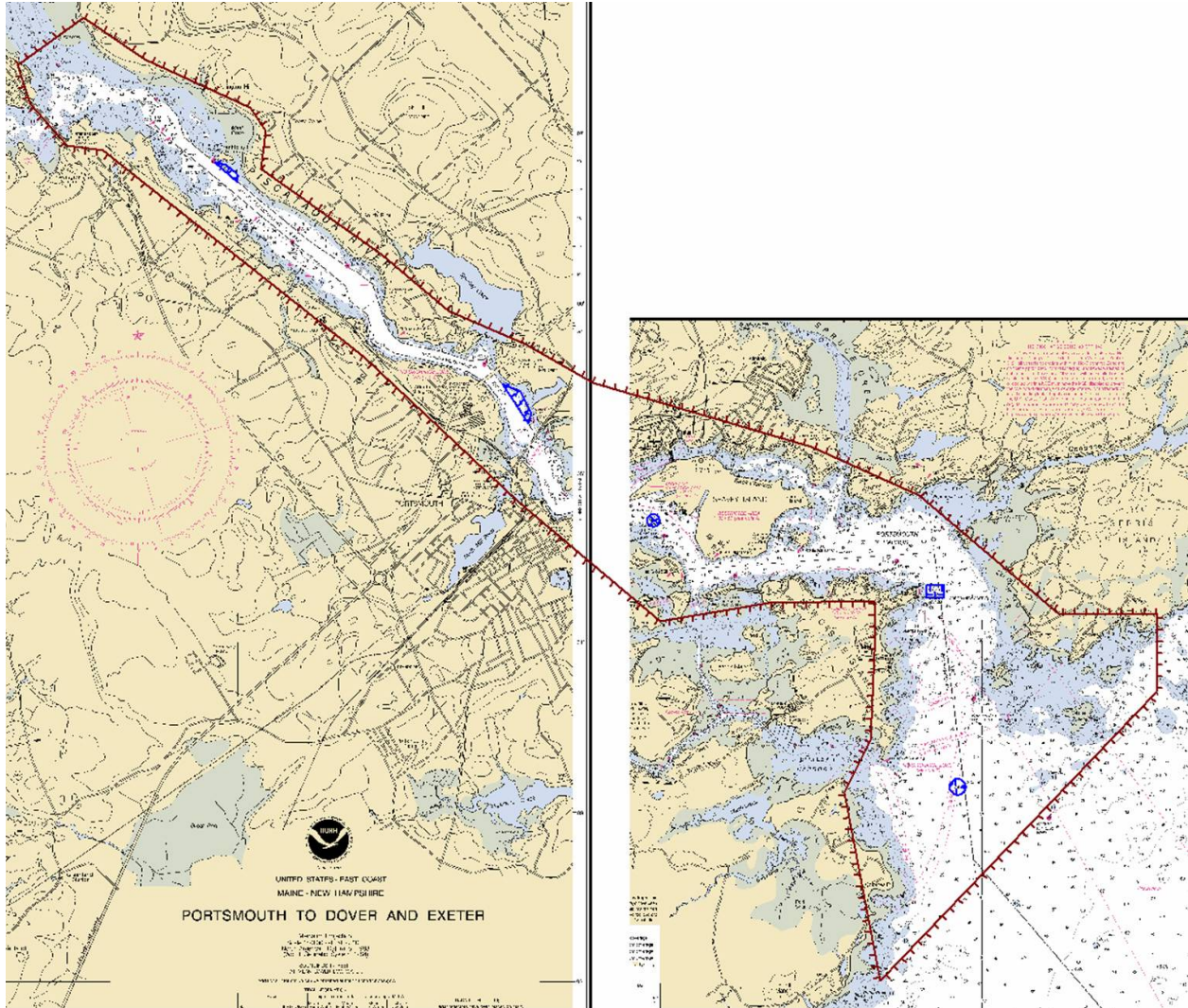
For complete survey limits, see figure A-1 on the following page.

Linear nautical miles of single beam only sounding lines - mainscheme only	1.5
Linear nautical miles of multibeam only sounding lines - mainscheme only	8.0
Linear nautical miles of side scan sonar only lines - mainscheme only	13.0
Linear nautical miles of any combination of the above techniques	13.0
Linear nautical miles of crosslines from single beam and multibeam combined	2.5
Linear nautical miles of developments other than mainscheme lines	3.2
Linear nautical miles of shoreline/nearshore investigation	0.0
Number of bottom samples collected	0
Number of items investigated that required additional time/effort in the field beyond the above survey operations	0.0
 Total square nautical miles	 0.33

Dates of acquisition: May 21, 2008 to May 29, 2008

***\*Filed with original field records.***

Figure A-1: Outline of survey area



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

### **B.1 EQUIPMENT**

Data were acquired by NOAA NRT-5, S3002. NOAA Survey Vessel S3002 is a 9.12-meter aluminum SeaArk outboard driven vessel with an average multibeam transducer draft of 1.3 meters.

NOAA S3002 acquired both bathymetry and imagery data. Side scan sonar data were acquired with a towed Klein 3000 side scan sonar system (SSS). Bathymetry data were acquired with an Odom Echotrac C/V 200 single beam echosounder (VBES) and a Kongsberg Simrad EM 3000 multibeam echosounder (MBES) using a Kongsberg Simrad EM3002 processing unit (PU). Positioning and attitude were determined with an Applanix POS/MV 320, version 4 GPS aided inertial navigation system (POS).

Where practicable areas of interest were covered with 200% SSS and 100% MBES. Multibeam data are submitted as primary mainscheme bathymetry. Singlebeam data is submitted as primary mainscheme bathymetry only for the area IVO Pier 2 Seavey Island where MBES data could not be gathered due to enforcement of a security perimeter at the time of MBES data acquisition (DN 150).

A new Caris HIPS vessel file (HVF), namely "NRT5\_S3002\_EM3002\_MBES," was created to process the EM3002 data. As there was no change to the sonar head, patch test values collected on DN 109 were used in this HVF. Similarly all offsets, dynamic draft values, waterline height, and TPE values are those used for the EM3000 HVF. Other than the above, no unusual vessel configurations or problems were encountered. Refer to the 2008 Data Acquisition and Processing Report (DAPR) \* for detailed equipment and vessel configuration information.

*\*Filed with original field records.*

### **B.2 QUALITY CONTROL**

#### **B.2.1 Side Scan Sonar Quality Control**

Daily confidence checks were made by observing the outer ranges of the side scan sonar images. A good check consisted of distinguishing linear contacts across the entire range of the side scan trace. No unusual problems were encountered.

200% SSS bottom coverage was collected for this survey at 75 m range scale.

#### **B.2.2 Multibeam Echosounder Quality Control**

Portions of MBES lines showed considerable data dropout. It is believed that this data dropout is due to a network bottleneck. The MBES system ping rate is too high for the capabilities of the current computer hardware and network peripherals to deal with the large amount of data

throughput. This network buffer overflow bottleneck subsequently leads to packet loss which manifests as gaps in data. Other than the above, there were no faults with the MBES system which affected data integrity. For detailed discussion of MBES system calibrations, data acquisition, and data processing refer to this project’s DAPR\*.

*\* Filed with original field records*

**B.2.3 Total Propagated Error**

Total Propagated Error (TPE) parameters as applied for sound speed and tide data for F00553 are shown in table B-1. The estimated tidal error contribution to the total survey error budget in the vicinity of Portsmouth Harbor, NH is 0.11 meters at the 95% confidence level (0.055 at 1σ), and includes the estimated gauge measurement error, tidal datum computation error, and tidal zoning error. Sound speed TPE values were used in accordance with HSTP guidelines regarding frequency of surface and water column sound speed measurements.

Table B-1. Total Propagated Error parameters.

<b>Total Propagated Error Values</b>			
Tide Values		Sound Speed Values	
Measured	Zoning	Measured	Surface
0.00	0.055	4.0	0.2

**B.2.4 Fieldsheets and Navigation Surfaces**

Caris HIPS uncertainty weighted BASE surfaces were created for this project. For MBES data surfaces were created and submitted at 0.50m resolution. An uncertainty weighted BASE surface was created for VBES data at 2.00m resolution. The MBES BASE surface finalized weighted grid is included in the digital PSS. Table B-2 lists all surfaces submitted with this survey.

Table B-2: F00553 bathymetry surfaces, and Side Scan mosaic resolutions.

<b>F00553 Bathymetry surfaces and SSS mosaic</b>			
Fieldsheet	Surface/Mosaic Name	Grid Type	Resolution
F00553	F00553_MBES_BASE_50cm	Uncertainty Weighted	0.50m
F00553	F00553_MBES_BASE_50cm_Final	Uncertainty Weighted	0.50m
F00553	F00553_VBES_BASE_2m	Uncertainty Weighted	2.00m
F00553	F00553_VBES_BASE_2m_Final	Uncertainty Weighted	2.00m
F00553	F00553_1m	SSS Mosaic	1.00m



### **B.2.5 Single Beam Quality Control**

Single beam data showed a timing error of between 1 to 3 seconds. Errors varied from day to day but were consistent within a single day's data acquisition. It is believed that the error was the result of a poorly functioning data acquisition computer's ability to sync the system clock to that of that of the POS/MV. The error was noted to be not present after the installation of a new acquisition computer. Timing corrector values were applied to the data via the HVF for days: 2008-142 (-3 seconds), 2008-144 (-2.75 seconds), and 2008-148 (1 second), VBES data collected after DN149 had no corrector value applied to them. Other than the above, there were no unusual events associated with the collection of the VBES data for this project. Refer to the DAPR\* for detailed discussion of VBES system calibrations, data acquisition, and data processing.

*\*Filed with original field records.*

### **B.2.6 Crosslines**

Approximately 2.5 linear NM of crosslines were acquired, this is 15% of the combined MBES and VBES mainscheme bathymetry linear NM. A total of 1.38 linear NM of MBES crosslines were run; this was approximately 13% of the total linear NM of MBES lines run. A visual examination of approximately 10% of crossline-mainsheme common areas showed general agreement between crosslines and mainscheme lines to within 1-2 feet. All beams met 95% order oneness, please refer to the separates section of this report for Caris generated QC tables. No VBES Crosslines were acquired within the limits of the federal channels. For a list of all crosslines acquired for this project, tabulated by DN and line file name, please refer to the processing logs\* located in the separates section of this report.

*\*Filed with original field records*

### **B.2.7 Junctions**

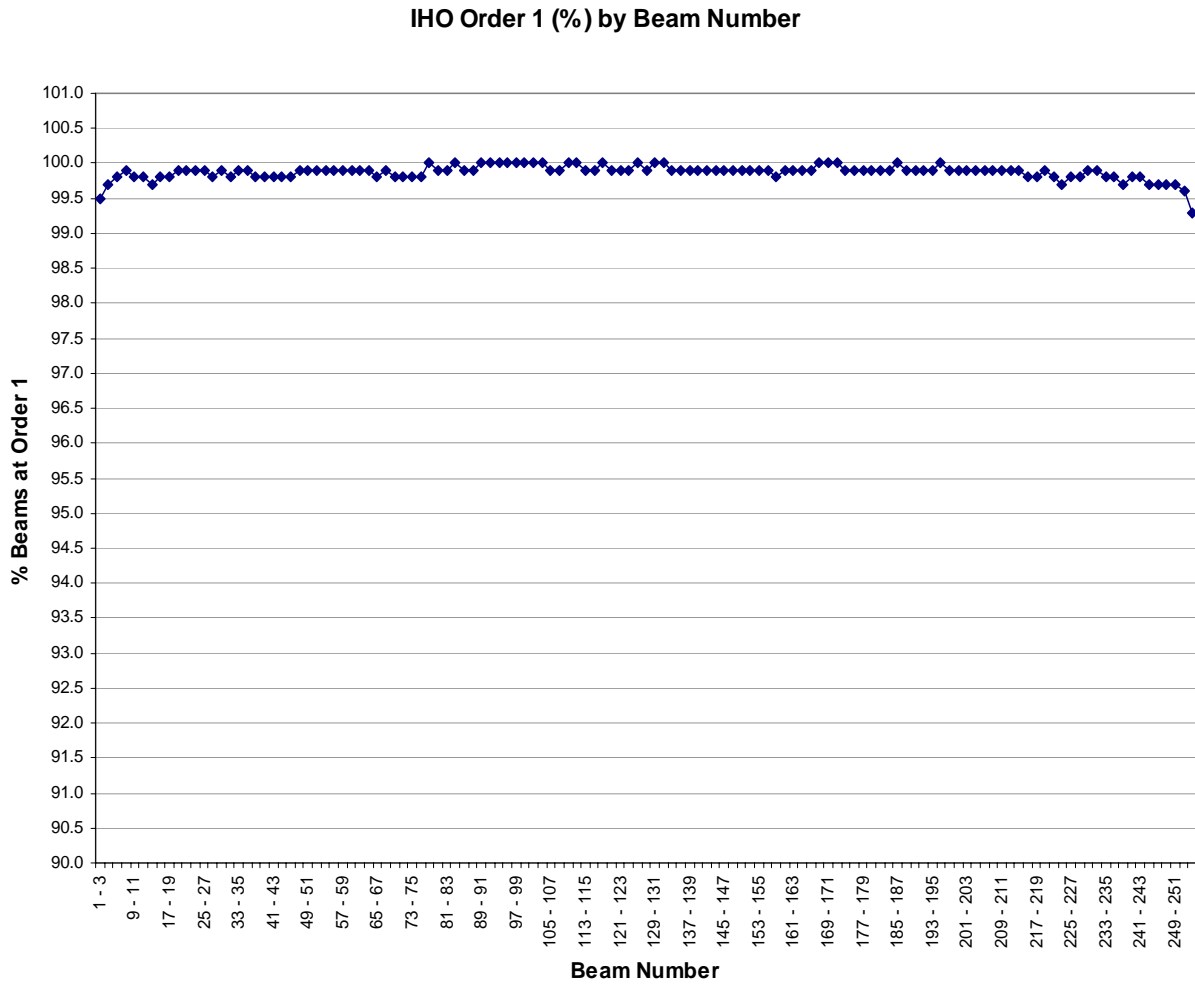
Survey F00553 junctions with two prior surveys H10763 (1997), and H11014 (2001). Overall contemporary data agreed with prior survey data to within 1-2 ft; specific differences from prior/charted items are discussed in Appendix II of this report. There were no contemporary surveys that junction with F00553. *Concur.*

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

Sound velocity profiles were applied to EM3002 data during data acquisition and could not be correctly reapplied in post-processing. Beam-steering surface sound speed values were also applied to the data at the time of acquisition. There were no noticeable sound velocity artifacts in the data. All other methods or instruments used were as described in the project DAPR\*. Raw and Processed sound speed data are included in the data submission package.

*\*Filed with original field records.*

Figure B-1: Caris QC Report, IHO order Oneness v. Beam Number.



## **C. VERTICAL AND HORIZONTAL CONTROL**

### **C.1 VERTICAL CONTROL**

The tidal datum for this project is Mean Lower Low Water (MLLW). The operating National Water Level Observation Network (NWLON) station at Fort Point (842-3898) served as datum control for the survey area.

A Request for Approved Tides was sent to N/OPS1 on June 23, 2008 (Appendix III\*). Verified tides from the N/OPS1 CO-OPS website were downloaded and applied to all sounding data. *See Evaluation Report*

*\*appended to this report*

### **C.2 HORIZONTAL CONTROL**

The horizontal datum used for this survey is the North American Datum of 1983 (NAD 83), projected using UTM zone 19.

Sounding positional control was determined using the Global Positioning System (GPS) corrected by U.S. Coast Guard differential GPS (DGPS) beacon stations. The DGPS beacon used for this survey was Brunswick, ME. No horizontal control stations were established for this survey.

Horizontal dilution of precision (HDOP) was monitored during acquisition, and did not exceed 4.00. Adequate satellite coverage was maintained throughout the survey period.

## D. RESULTS AND RECOMMENDATIONS

### D.1 CHART COMPARISON *See Evaluation Report*

According to the Project instructions, the charts affected by this survey are:

<i>Chart Number</i>	<i>Edition</i>	<i>Edition Date</i>	<i>Scale</i>
13283	20th	<del>08</del> 10/01/2007	1:20,000
13285	11 <sup>th</sup>	07/01/2005	1:20,000
13286	30th	03/01/2004	1:80,000

<i>ENC Cell Name</i>
US5NH01M
US5NH02M

#### D.1.1 General Agreement with Charted soundings

The nature of the substrate in the area, i.e. hard sandy/rocky bottom showed little evidence of significant change from charted soundings and prior survey data. Sounding data generally agreed with charted depths to within 1-2 feet, navigationally significant features that exhibit differences from charted depths are addressed in Appendices II\* of this report.

*\*appended to this report*

### D.1.2 AWOIS Items and Significant Contacts

Fourteen (14) AWOIS items were assigned within the survey limits of F00553, seven of which were full investigation. Of these 14, four charted wrecks (AWOIS 11068, 10755, 10754 and 10753) were inshore of the Navigable Area Limit Line (NALL) and could not be fully investigated with sonar, 2 of the these 4 items (AWOIS 10754 & 10753) are believed by the hydrographer to denote the same object. A wooden wreck was visually confirmed and noted in the SSS trace in the area of AWOIS items 10754/10753. The hydrographer recommends these two items be grouped as one item and retained as charted. AWOIS item 11068 is located in an area that could not allow for safely acquiring sonar data, but was visually confirmed to be correctly charted and is recommended to be retained as charted. AWOIS item 10755 is located in an area that could not allow for safely acquiring sonar data, and was not visually confirmed as an exposed wreck, the hydrographer recommends the object be changed to a OBSTN. Three AWOIS items (10763, 11070 and 11069) were recommended by the hydrographer to be updated with current bathymetry data. All other full investigation AWOIS items were investigated to the NALL. For full description and hydrographer recommendations of all assigned AWOIS items see appendix II\*, Sec 3. *\*appended to this report*

### D.1.3 Dangers to Navigation

Three (3) items were submitted as DTONs within the limits of survey F00553. The 3 DTONs were obstructions located within the navigable channel with least depth shallower than the charted channel depth, and were submitted to MCD on 30 June 2008. See Appendix II *I\**, sec. 4 for full description and hydrographer recommendations *\*appended to this report*

### D.1.4 Charted Features

The charted "Defense Fuel Pier" lighted pier was noted to be in a ruinous state, and is recommended to be charted as a ruin. A charted exposed wreck (GP "Danger 109") was not noted visually or in the SSS trace, a floating dock is now located at the position of the charted exposed wreck. The hydrographer recommends the exposed wreck be removed from the chart and the floating dock added. Similarly 4 other objects charted as GP "OBSTN/crib" were noted to be floating dock structures, the hydrographer recommends the objects be charted as floating dock/pier structures. One private floating aid was found to be charted with inaccurate markings and is recommended to be updated with current data. For full description and hydrographer recommendations for changes to charted features are addressed in Appendix II\* sec. 1 of this report, as well as in the digital PSS. *\*appended to this report*  
*See Evaluation Report*

### D.1.5 Charting Recommendations

Survey F00553 is complete and adequate to supersede charted soundings in their common areas.  
*Concur.*

## **D.2 ADDITIONAL RESULTS**

### **D.2.1 Aids to Navigation**

As noted above, one private floating aid was found to be charted with inaccurate markings and is recommended to be updated with contemporary data. No other AToN's were noted to be incorrectly positioned or charted. See Appendix V\*, section V.3 of this report. **Concur.**  
***\*appended to this report.***

### **D.2.2 Bridges and Overhead Cables**

There are three (3) bridges (the US1 Bluestar Memorial Hwy, the US1 Bypass, and the I-95) and one overhead cable within the survey limits of F00553. Positioning data was not adversely effected by overhead objects, and the hydrographer has no charting recommendations regarding the overhead objects. **Concur.**

### **D.2.3 Submarine Cables and Pipelines**

There are five charted submarine cable areas within the survey limits of F00553, no bathymetric data were gathered over any submerged cables and no such items were noted in the SSS imagery. **Concur.**

**E. APPROVAL SHEET****OPR-A321  
Portsmouth  
New Hampshire****Portsmouth Harbor and Piscatiqua River  
Survey Registry No. F00553**

Field operations for this survey were conducted under my daily supervision with frequent checks of progress and adequacy. All field sheets, bathymetry models, this Descriptive Report, and all accompanying records and data are approved.

Submitted in association with this descriptive report has been a series of reports and data:

2008 Data Acquisition and Processing Report (submitted with this report)  
2008 HSRR Memo (submitted with this report)

This survey is adequate to supersede all prior surveys in common areas, and for application to the relevant NOS nautical charts.

Respectfully,



Matthew Jaskoski  
2008.10.27 14:29:08  
-04'00'

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LT(jg) Matthew Jaskoski, NOAA  
OIC NRT-5

**APPENDIX I**  
**DANGERS TO NAVIGATION REPORT**



# F00553 DTON Report

**Registry Number:** F00553  
**State:** New Hampshire  
**Locality:** Portsmouth  
**Sub-locality:** Portsmouth harbor and Piscataqua River  
**Project Number:** OPR-A321-NRT5-08  
**Survey Date:** 05/29/2008

## Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
13285	11th	07/01/2005	1:20,000 (13285_1)	USCG LNM: 10/23/2007 (04/15/2008) NGA NTM: None (04/26/2008)
13283	20th	10/01/2007	1:20,000 (13283_1)	USCG LNM: 03/18/2008 (04/15/2008) NGA NTM: None (04/26/2008)
13286	30th	03/01/2004	1:80,000 (13286_1)	[L]NTM: ?
13278	26th	06/01/2005	1:80,000 (13278_1)	[L]NTM: ?
13260	39th	06/01/2003	1:378,838 (13260_1)	[L]NTM: ?
13009	32nd	07/01/2006	1:500,000 (13009_1)	[L]NTM: ?
13006	33rd	04/01/2006	1:675,000 (13006_1)	[L]NTM: ?
13003	48th	10/01/2004	1:1,200,000 (13003_1)	[L]NTM: ?

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

## Features

No.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	34ft OBSTN 727/55	Obstruction	10.46 m	43° 05' 13.8" N	070° 45' 44.2" W	---
1.2	36ft Rock 206/63	Shoal	11.01 m	43° 06' 55.6" N	070° 48' 28.6" W	---
1.3	35ft OBSTN 307/126 Sunken Buoy	Obstruction	10.86 m	43° 07' 05.3" N	070° 48' 38.3" W	---

**1 - DR\_DToN**

**1.1) 34ft OBSTN 727/55****DANGER TO NAVIGATION****Survey Summary**

**Survey Position:** 43° 05' 13.8" N, 070° 45' 44.2" W  
**Least Depth:** 10.46 m (= 34.31 ft = 5.719 fm = 5 fm 4.31 ft)  
**TPU ( $\pm 1.96\sigma$ ):** **THU (TPEh)**  $\pm 1.971$  m ; **TVU (TPEv)**  $\pm 0.230$  m  
**Timestamp:** 2008-150.21:02:04.483 (05/29/2008)  
**Survey Line:** f00553 / nrt5\_s3002\_em3002\_mbes / 2008-150 / 091\_2101  
**Profile/Beam:** 727/55  
**Charts Affected:** 13283\_1, 13285\_1, 13278\_1, 13286\_1, 13260\_1, 13009\_1, 13006\_1, 13003\_1

**Remarks:**

The area was covered with 200% Klein 3000 SSS, developed with Simrad EM3002 MBES, verified tides applied. The contact appears to be debris or possibly wreckage, LD shallower than charted depths in the area.

**Feature Correlation**

Address	Feature	Range	Azimuth	Status
f00553/nrt5_s3002_em3002_mbes/2008-150/091_2101	727/55	0.00	000.0	Primary
f00553/nrt5_s3002_klein3000_sss/2008-142/sonar_data080521135100	0001	0.88	152.3	Secondary
f00553/nrt5_s3002_klein3000_sss/2008-142/sonar_data080521135900	0001	11.52	246.2	Secondary

**Hydrographer Recommendations**

The hydrographer recommends the object be charted as a OBSTN, LD and position as surveyed.

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

34ft (13283\_1, 13285\_1, 13278\_1, 13286\_1)  
 5  $\frac{3}{4}$ fm (13260\_1, 13009\_1, 13006\_1, 13003\_1)

**S-57 Data**

**Geo object 1:** Obstruction (OBSTRN)  
**Attributes:** OBJNAM - 33ft OBSTN  
 QUASOU - 6:least depth known

SORDAT - 20080529

SORIND - US,US,NSURF,F00553

TECSOU - 2,3:found by side scan sonar,found by multi-beam

VALSOU - 10.459 m

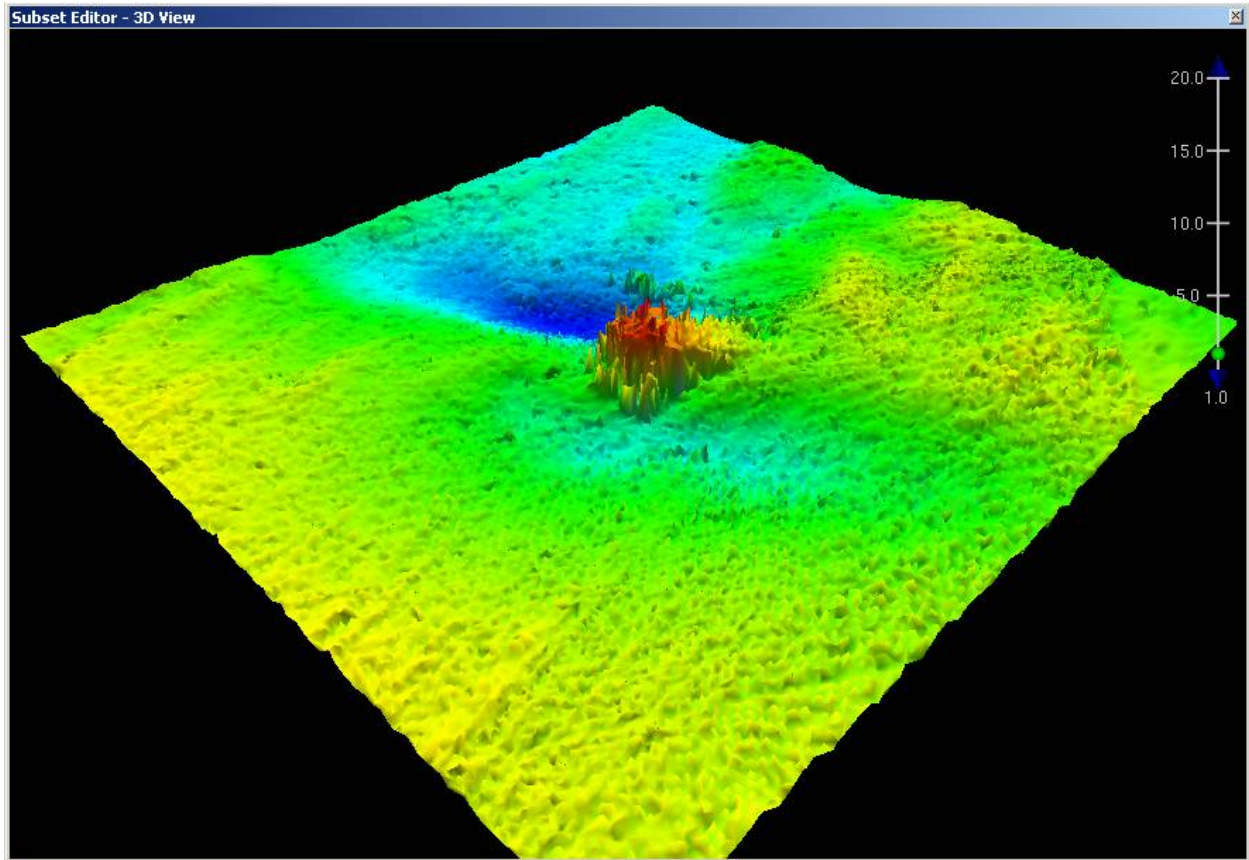
VERDAT - 16:Mean high water

WATLEV - 3:always under water/submerged

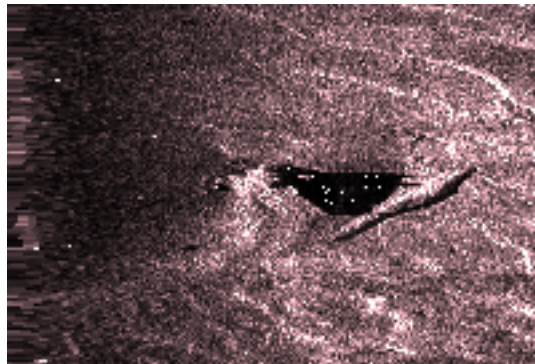
## Office Notes

Concur with clarification. Final least depth verified is 34-ft, 10.459m. Recommend to delete 33-ft obstruction at the charted location. Recommend to add 34-ft obstruction at the surveyed location (43°05'13.785"N , 070°45'44.151"W).

### Feature Images



*Figure 1.1.1*



*Figure 1.1.2*

**1.2) 36ft Rock 206/63**

**DANGER TO NAVIGATION**

**Survey Summary**

**Survey Position:** 43° 06' 55.6" N, 070° 48' 28.6" W  
**Least Depth:** 11.01 m (= 36.11 ft = 6.018 fm = 6 fm 0.11 ft)  
**TPU ( $\pm 1.96\sigma$ ):** **THU (TPEh)**  $\pm 1.969$  m ; **TVU (TPEv)**  $\pm 0.220$  m  
**Timestamp:** 2008-150.19:23:08.382 (05/29/2008)  
**Survey Line:** f00553 / nrt5\_s3002\_em3002\_mbes / 2008-150 / 126\_1922  
**Profile/Beam:** 206/63  
**Charts Affected:** 13285\_1, 13260\_1, 13009\_1, 13006\_1, 13003\_1

**Remarks:**

The area was covered with 100% Klein 3000 SSS developed with Simrad EM3002 MBES, verified tides applied. The object is shallower than charted controlling channel depths.

**Feature Correlation**

Address	Feature	Range	Azimuth	Status
f00553/nrt5_s3002_em3002_mbes/2008-150/126_1922	206/63	0.00	000.0	Primary
f00553/nrt5_s3002_klein3000_sss/2008-142/sonar_data080521151000	0009	0.10	000.0	Secondary

**Hydrographer Recommendations**

The hydrographer recommends the object be charted as an OBSTN, LD and position as surveyed.

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

36ft (13285\_1)  
 6fm (13260\_1, 13009\_1, 13006\_1, 13003\_1)

**S-57 Data**

**Geo object 1:** Cartographic symbol (\$CSYMB)

## Office Notes

Concur with clarification. Submitted data indicates least depth of feature is 36'. Recommend to delete 33' charted OBSTN. Bearing in mind the controlling depth of the USACE maintained channel (35-ft), recommend not to append the chart with 36' Rock.

### Feature Images

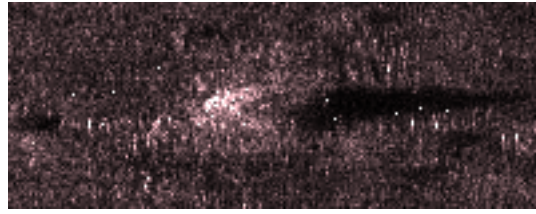


Figure 1.2.1

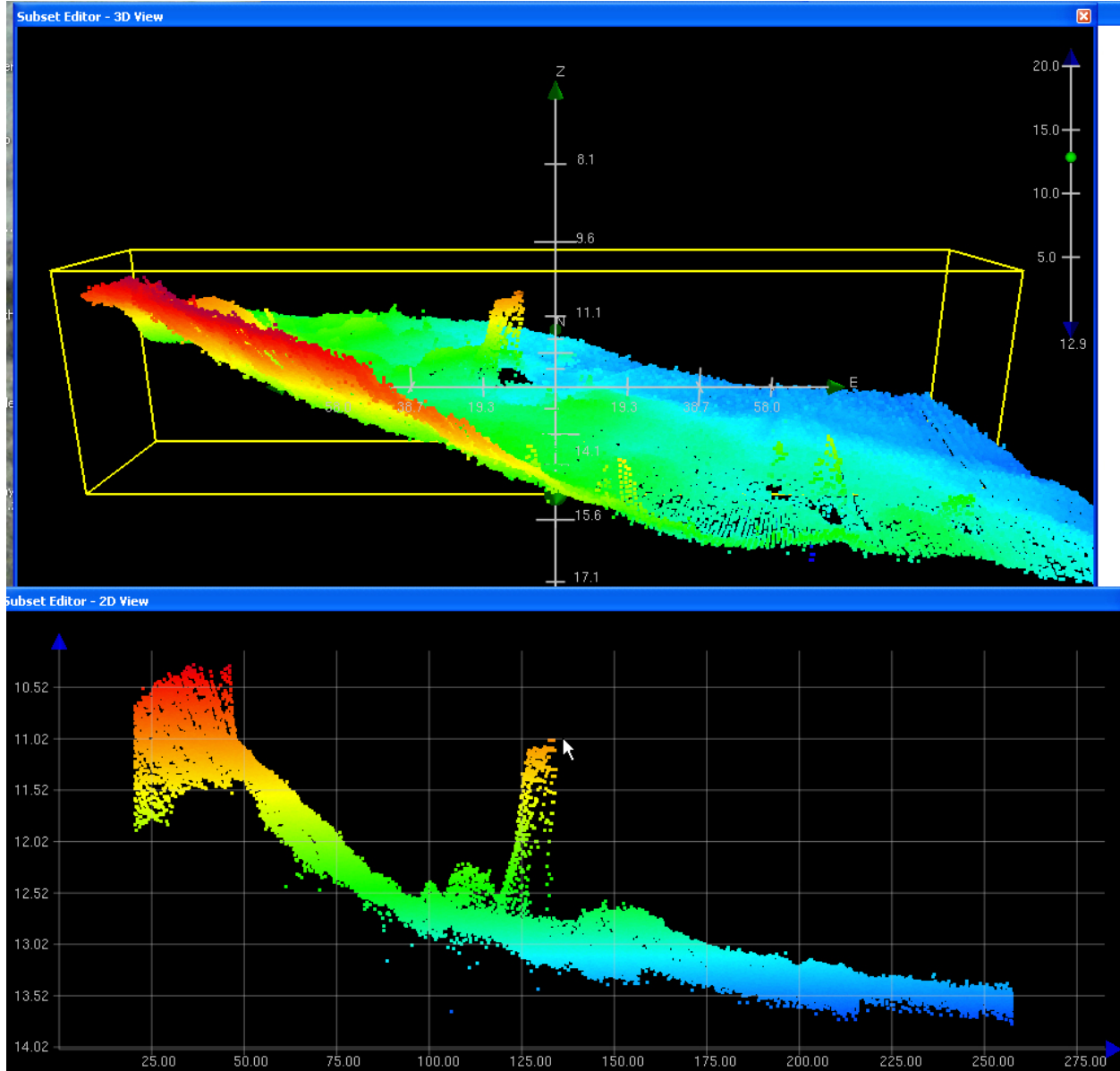


Figure 1.2.2



### 1.3) 35ft OBSTN 307/126 Sunken Buoy

## DANGER TO NAVIGATION

### Survey Summary

**Survey Position:** 43° 07' 05.3" N, 070° 48' 38.3" W  
**Least Depth:** 10.86 m (= 35.62 ft = 5.937 fm = 5 fm 5.62 ft)  
**TPU ( $\pm 1.96\sigma$ ):** **THU (TPEh)**  $\pm 1.965$  m ; **TVU (TPEv)**  $\pm 0.213$  m  
**Timestamp:** 2008-150.19:17:03.526 (05/29/2008)  
**Survey Line:** f00553 / nrt5\_s3002\_em3002\_mbes / 2008-150 / 129\_1916  
**Profile/Beam:** 307/126  
**Charts Affected:** 13285\_1, 13260\_1, 13009\_1, 13006\_1, 13003\_1

#### Remarks:

The area was covered with 100% Klein 3000 SSS developed with Simrad EM3002 MBES, verified tides applied. The object is shallower than charted controlling channel depths.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
f00553/nrt5_s3002_em3002_mbes/2008-150/129_1916	307/126	0.00	000.0	Primary
f00553/nrt5_s3002_klein3000_sss/2008-142/sonar_data080521151000	0008	1.66	236.8	Secondary

### Hydrographer Recommendations

The hydrographer recommends the object be charted as an OBSTN, LD and position as surveyed.

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

35ft (13285\_1)

5 ¾fm (13260\_1, 13009\_1, 13006\_1, 13003\_1)

### S-57 Data

**Geo object 1:** Cartographic symbol (\$CSYMB)

## Office Notes

Concur with clarification. Submitted data indicates least depth of feature is 35'. Recommend to delete 33' charted OBSTN. Bearing in mind the controlling depth of the USACE maintained channel (35-ft), recommend not to append the chart with 35' OBSTN.

### Feature Images

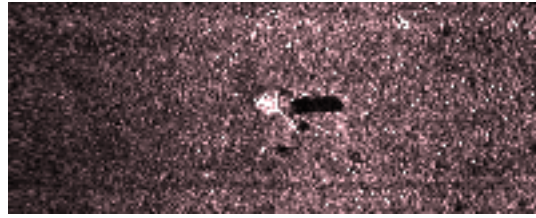


Figure 1.3.1

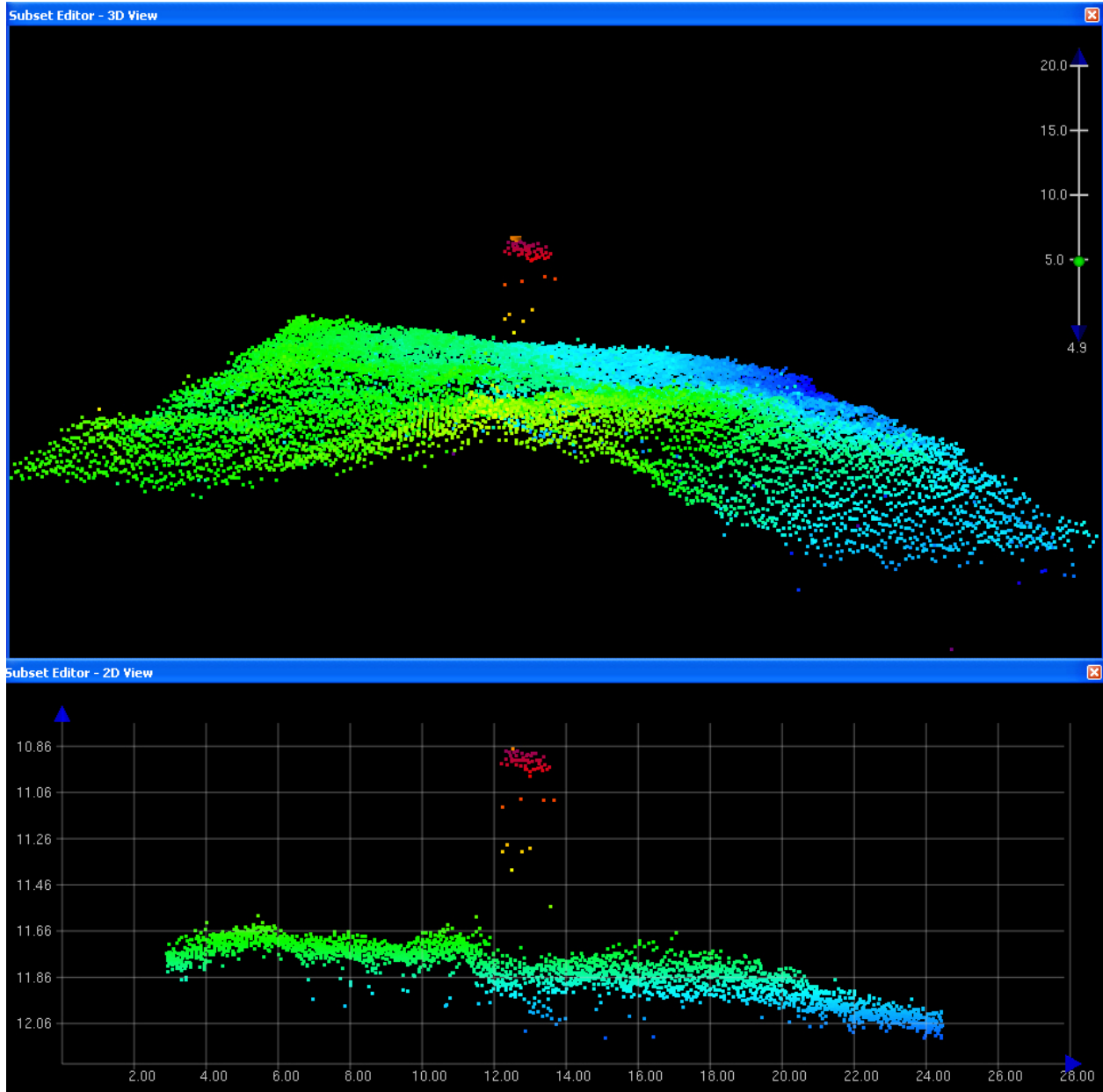


Figure 1.3.2

## **APPENDIX II**

### **SURVEY FEATURES REPORT**

# F00553 AWOIS Feature Report

**Registry Number:** F00553  
**State:** New Hampshire  
**Locality:** Portsmouth  
**Sub-locality:** Portsmouth harbor and Piscataqua River  
**Project Number:** OPR-A321-NRT5-08  
**Survey Date:** 05/29/2008

## Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
13283	20th	10/01/2007	1:20,000 (13283_1) 1:10,000 (13283_2)	USCG LNM: 03/18/2008 (04/15/2008) NGA NTM: None (04/26/2008)
13285	11th	07/01/2005	1:20,000 (13285_1)	USCG LNM: 10/23/2007 (04/15/2008) NGA NTM: None (04/26/2008)
13274	26th	04/01/2005	1:40,000 (13274_2)	[L]NTM: ?
13286	30th	03/01/2004	1:80,000 (13286_1)	[L]NTM: ?
13278	26th	06/01/2005	1:80,000 (13278_1)	[L]NTM: ?
13260	39th	06/01/2003	1:378,838 (13260_1)	[L]NTM: ?
13009	32nd	07/01/2006	1:500,000 (13009_1)	[L]NTM: ?
13006	33rd	04/01/2006	1:675,000 (13006_1)	[L]NTM: ?
13003	48th	10/01/2004	1:1,200,000 (13003_1)	[L]NTM: ?

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

## Features

No.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	Exposed Wreck AWOIS #11068	AWOIS	[no data]	[no data]	[no data]	---
1.2	27ft Sounding AWOIS #10752	AWOIS	[no data]	[no data]	[no data]	---
1.3	Wreck AWOIS #10753	AWOIS	[no data]	[no data]	[no data]	---
1.4	Sunken Wreck AWOIS #10755	AWOIS	[no data]	[no data]	[no data]	---
1.5	18ft Sounding AWOIS #10756	AWOIS	[no data]	[no data]	[no data]	---
1.6	12ft Sounding AWOIS #10757	AWOIS	[no data]	[no data]	[no data]	---
1.7	17ft Sounding AWOIS #10758	AWOIS	[no data]	[no data]	[no data]	---

1.8	9ft OBSTN AWOIS #10762	AWOIS	[no data]	[no data]	[no data]	---
1.9	33ft Wreck AWOIS #10763 - ANNE EL	Wreck	10.02 m	43° 05' 09.7" N	070° 45' 44.7" W	10763
1.10	10ft OBSTN AWOIS #11070	Obstruction	3.21 m	43° 07' 13.9" N	070° 49' 32.1" W	11070
1.11	26ft Wreck AWOIS #11069	Wreck	7.91 m	43° 07' 16.5" N	070° 49' 25.4" W	11069
1.12	10ft Sub-Piling AWOIS #11073	Obstruction	3.26 m	43° 07' 31.1" N	070° 49' 27.5" W	11073

**1 - DR\_AWOIS**

## 1.1) AWOIS #11068 - Exposed Wreck AWOIS #11068

### No Primary Survey Feature for this AWOIS Item

**Search Position:** 43° 05' 46.0" N, 070° 45' 58.0" W  
**Historical Depth:** [None]  
**Search Radius:** 100  
**Search Technique:** VS, SD  
**Technique Notes:** confirm existence of visible wreck and obtain detached position

#### History Notes:

HISTORY ■ Charted visible wreck. ■ CL99/88-- Dept. of the Army, New England Corps of Engineers, Report of field investigation; Item #3: 100 x 25 foot wooden barge at Lat. 43-05-46N, Lon. 70-45-58W which has been sitting on the bottom for about 2 years. (Ent. DAS 9/7/2001) ■ H11014/00-01-- S-A910-WH; NEITHER ADDRESSED NOR DISCUSSED BY HYDROGRAPHER OR EVALUATOR. FIELD UNIT COMPLETED SURVEY WORK ON 9/28/01. SINCE ITEM WAS ASSIGNED ON 9/7/01, ASSUME TIME CONSTRAINTS PREVENTED ADDRESSING THIS ITEM. (UP 12/19/03, SJV)

### Survey Summary

**Charts Affected:** 13285\_1, 13286\_1, 13260\_1, 13009\_1, 13006\_1, 13003\_1

#### Remarks:

The object is exposed in entirety and visually conspicuous at low tide. The majority of the wreck is submerged at high tide with some exposed structure.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
AWOIS	AWOIS # 11068	0.00	000.0	Primary
ChartGPs - ENC US5NH01M	Danger 62	41.96	261.0	Secondary (grouped)

### Hydrographer Recommendations

The hydrographer recommends the object be retained as charted.

### S-57 Data

**Geo object 1:** Wreck (WRECKS)  
**Attributes:** CONVIS - 1:visual conspicuous  
 VERDAT - 12:Mean lower low water



WATLEV - 1;partly submerged at high water

## **Office Notes**

Concur. Retain wreck as charted, no cartographic action necessary.

## Feature Images



*Figure 1.1.1*



Figure 1.1.2

## 1.2) AWOIS #10752 - 27ft Sounding AWOIS #10752

### No Primary Survey Feature for this AWOIS Item

**Search Position:** 43° 05' 09.7" N, 070° 45' 40.0" W  
**Historical Depth:** 8.23 m  
**Search Radius:** 0  
**Search Technique:** [None]  
**Technique Notes:** [None]

#### History Notes:

HISTORY ■ H08092/54-- CS-355 (1953); SURVEY ACCOMPLISHED TO SUPPORT NEW CHART NO. 212 (NEW NO. 13285). 28-FOOT DEPTH ON SMOOTH SHEET. EVALUATOR NOTES THAT "DEPTHS ALONG THE AXIS OF THE NATURAL CHANNEL OF THE PISCATAQUA RIVER RANGE FROM 28 TO 68 FEET". ■ CL1372/65-- COE, NEW ENGLAND; DATED 10/7/65; ADVANCE NOTICE TO BIDDERS RE. REMOVAL OF OBSTRUCTION (SEE CL-1436/65,BELOW). REMOVAL OF MATERIAL 37 FEET BELOW MLW (VICE 40 FEET IN CL 1436). USE OF EXPLOSIVES WILL NOT BE PERMITTED. ■ BP66856/64-- NOTED ON BP THAT THE WOOD COACH IS LEVEL WITH THE BOTTOM. ■ BP68922/65-- ECHO SOUNDERDEPTHOF 25.3 FEET OBTAINED ON GRANITE BLOCK. ■ CL1436/65-- COE, NEW ENGLAND; DATED 10/20/65; "SPECIFICATIONS FOR REMOVAL OF OBSTRUCTION IN PORTSMOUTH HARBOR AND PISCATAQUA RIVER MAINE AND NEW HAMPSHIRE". INVITATION FOR BIDS FOR REMOVAL AND DISPOSAL OF A LOCOMOTIVE AND TENDER, BOULDERS, TIMBER PILING, AND EARTH LYING ABOVE THE PLANE OF 40 FEET BELOW MLW IN THE AREA OF THE SHIP CHANNEL DIRECTLY UPSTREAM OF THE MAINE-NEW HAMPSHIRE HIGHWAY AND RAILROAD BRIDGE. SITE IS THE AREA WHERE A RAILROAD TRESTLE COLLAPSED IN 1939 , AT WHICH TIME AN ENGINE (BOSTON MAINE #3666), TENDER, AND COACH FELL INTO THE RIVER POSSIBLY TOGETHER WITH OTHER WOOD OR METAL DEBRIS. DIVE OPS WERE CONDUCTED IN MARCH 1964 AND JUNE 1965. DIVERS IN 1964 OBTAINED A LL DEPTH ON THE HIGHEST POINT OF A LARGE GRANITE BLOCK OF 25.3 FEET AT MLW. DIVERS ALSO DESCRIBED A TANGLED MASS OF STEEL, BOULDERS, AND MUD. BELIEVED TO BE THE SAID ENGINE. 1965 DIVE OPS DESCRIBED THE LARGE GRANITE BLOCK AS RESTING ON A MOUND OF RIPRAP. MOUND IS APPROX. 15-20 FEET HIGH AND 25 FEET WIDE ACROSS THE TOP. DIVERS DESCRIBED THE ENGINE AS RESTING ON ITS SIDE TOP OF ENGINE FACING DOWN STREAM. ENGINE AND TENDER APPEAR TO BE COUPLED. WRECKAGE OF THE OLD TRESTLE THROUGHOUT THE AREA. DIVERS DESCRIBED THE COACH AS FLATTENED OUT AND 2-4 FEET ABOVE THE BOTTOM. SAMPLES OF WRECKAGE WERE OBTAINED FOR THE ENGINEERS OFFICE. SEE AWOIS NO.10764). ■ BP70057/66-- CHANNEL AREA SWEEP CLEAR TO 40 FEET MLW AFTER REMOVAL (FROM CHANNEL) OF ENGINE AND TENDER. ■ BP70058/66-- AFTER DREDGE; ECHO SOUNDER DEPTH OF 28.1 FEET OBTAINED ON BLOCK. ■ BP170605/00-- ECHO SOUNDER DEPTH OF 27.1 FEET OBTAINED ON BLOCK. CHARTED 26RK INADVERTENTLY DELETED AND A 47-FOOT DEPTH WAS CHARTED. ■ H11014/00-01-- S-A910-WH; SWMB SOUNDING OF 27 FEET (8.35 METERS) OBTAINED IN LAT. 43-05-09.70N, LONG. 70-45-40.02W. BEARS APPROX. 30 DEG., 30 METERS FROM THE AWOIS (CHARTED) POSITION. HYDROGRAPHER STATES THAT, BASED ON A REVIEW OF THE DATA, THE ITEM IS A RISE IN THE BOTTOM BUT NOT A DISCRETE ROCK OR OBSTRUCTION. EVALUATOR RECOMMENDS CHARTING A 27RK AS SURVEYED. THE DTON RECOMMENDED BY THE HYDROGRAPHER WAS CANCELLED BY AHB SINCE ITEM WAS LOCATED JUST OUTSIDE CHANNEL. FURTHER REVIEW BY HSD AND MCD RESULTED IN A NOTICE TO MARINER BEING WRITTEN. (UP 12/18/03, SJV)

## Survey Summary

**Charts Affected:** 13283\_1, 13285\_1, 13278\_1, 13286\_1, 13260\_1, 13009\_1, 13006\_1, 13003\_1

**Remarks:**

The area was covered with 200% Klein 3000 SSS. The contact appears to be debris of insignificant height located on a natural rise in the bottom.

## Feature Correlation

Address	Feature	Range	Azimuth	Status
AWOIS	AWOIS # 10752	0.00	000.0	Primary
ChartGPs - ENC US5NH01M	Danger 33	21.88	076.2	Secondary (grouped)
f00553/nrt5_s3002_klein3000_sss/2008-142/sonar_data080521134700	0002	37.02	034.7	Secondary

## Hydrographer Recommendations

The hydrographer recommends the object be retained as charted.

### S-57 Data

**Geo object 1:** Obstruction (OBSTRN)

**Attributes:** SORDAT - 20080623

VALSOU - 8.2296 m

WATLEV - 3:always under water/submerged

## Office Notes

Concur. Retain object as charted. No cartographic action necessary.

## Feature Images



*Figure 1.2.1*

### 1.3) AWOIS #10753 - Wreck AWOIS #10753

#### No Primary Survey Feature for this AWOIS Item

**Search Position:** 43° 04' 54.3" N, 070° 43' 07.2" W  
**Historical Depth:** [None]  
**Search Radius:** 0  
**Search Technique:** [None]  
**Technique Notes:** [None]

#### History Notes:

HISTORY ■ H8090/1955-- In latitude 43-4.90N and longitude 70-43.15W there is a wreck (charted) in ruins. This is located and described in sounding volume 15 page 18. Entered 10/12/2000 DAS. ■ H11014/00-01-- S-A904-WH; NIETHER ADDRESSED NOR DISCUSSED BY THE HYDROGRAPHER OR EVALUATOR. (UP 12/24/03, SJV)

#### Survey Summary

**Charts Affected:** 13283\_2, 13283\_1, 13278\_1, 13286\_1, 13260\_1, 13009\_1, 13006\_1, 13003\_1

#### Remarks:

The area was covered with 200% Klein 3000 SSS, the object was confirmed by visual scan and in the SSS trace. The object is partially exposed at low tide, partially submerged at high tide.

#### Feature Correlation

Address	Feature	Range	Azimuth	Status
AWOIS	AWOIS # 10753	0.00	000.0	Primary
ChartGPs - ENC US5NH02M	Danger 108	6.36	003.7	Secondary (grouped)
f00553/nrt5_s3002_klein3000_sss/2008-142/sonar_data080521131100	0002	10.61	307.5	Secondary
f00553/nrt5_s3002_klein3000_sss/2008-142/sonar_data080521131100	0001	14.90	191.7	Secondary
AWOIS	AWOIS # 10754	37.18	000.0	Secondary (grouped)

#### Hydrographer Recommendations

The hydrographer recommends the object be retained as charted.

## S-57 Data

**Geo object 1:** Wreck (WRECKS)  
**Attributes:** CATWRK - 2:dangerous wreck  
CONVIS - 1:visual conspicuous  
TECSOU - 2:found by side scan sonar  
VERDAT - 12:Mean lower low water  
WATLEV - 1:partly submerged at high water

## Office Notes

Concur. Retain object as charted. No cartographic action necessary.



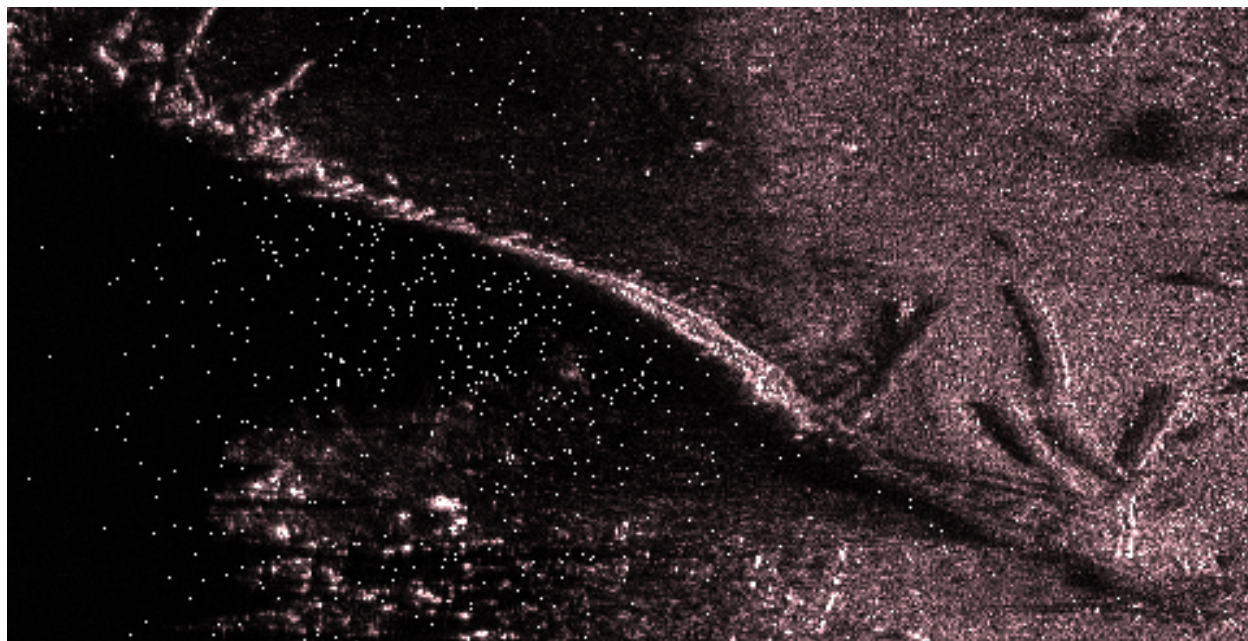
## Feature Images



*Figure 1.3.1*



Figure 1.3.2



*Figure 1.3.3*

## 1.4) AWOIS #10755 - Sunken Wreck AWOIS #10755

### No Primary Survey Feature for this AWOIS Item

**Search Position:** 43° 04' 44.0" N, 070° 43' 37.0" W  
**Historical Depth:** [None]  
**Search Radius:** 50  
**Search Technique:** VI, ES, DI, SD  
**Technique Notes:** [None]

#### History Notes:

HISTORY ■ Charted visible wreck. ■ H8090/1954-- Visible wreck sketched on smooth sheet at the eastern side of Seavey Island, south of Jamaica Island. No other information noted in the DR. Approx. position scaled in MapInfo from kap chart 13283: 43-04-44N, 070-43-37. ■ Entered 10/12/2000 DAS.

### Survey Summary

**Charts Affected:** 13283\_2, 13283\_1, 13278\_1, 13286\_1, 13260\_1, 13009\_1, 13006\_1, 13003\_1

#### Remarks:

There was no visually conspicuous object noted during visual scan at low tide. Sonar data could not be obtained to adequately cover the AWOIS search radius due to the presence of a dense mooring field to the south and a shoal to the north. The object is located inshore of the NALL.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
AWOIS	AWOIS # 10755	0.00	000.0	Primary
ChartGPs - ENC US5NH02M	Danger 107	15.79	110.2	Secondary (grouped)

### Hydrographer Recommendations

The hydrographer recommends the object be charted as an OBSTN.

### S-57 Data

**Geo object 1:** Wreck (WRECKS)  
**Attributes:** CATWRK - 2:dangerous wreck  
 QUASOU - 2:depth unknown  
 WATLEV - 3:always under water/submerged

## Office Notes

Do not concur. Retain AWOIS #10755 as charted. No cartographic action necessary.

## Feature Images



*Figure 1.4.1*

## 1.5) AWOIS #10756 - 18ft Sounding AWOIS #10756

### No Primary Survey Feature for this AWOIS Item

**Search Position:** 43° 04' 13.1" N, 070° 41' 59.5" W  
**Historical Depth:** 5.49 m  
**Search Radius:** 0  
**Search Technique:** [None]  
**Technique Notes:** [None]

**History Notes:**

HISTORY ■ H08090/54-- CS-355; 24-FOOT SHOAL (FROM H02360/1898, 1:10,000) CHARTED IN LAT. 43-04.20N, LONG. 70-42.00W FOUND AND DEVELOPED. LL SOUNDING OF 19.2 FEET OBTAINED 35 METERS NW OF THE CHARTED 24-FOOT SOUNDING. YELLOW SAND AND SHELL BOTTOM. 24 DELETED AND 19 CHARTED. SCALED FROM CHART 13283 IN LAT. 40-04-12.0N, LONG. 70-41-59.0W. ■ H11014/00-01-- S-A910-WH; SWMB SOUNDING OF 18 FEET (5.63 METERS) OBTAINED IN LAT. 43-04-13.15N, LONG. 70-41-59.49W. EVALUATOR RECOMMENDS DELETING THE CHARTED 19-FOOT SOUNDING AND CHARTING 18 FEET AS SURVEYED. (UP 12/22/03, SJV)

### Survey Summary

**Charts Affected:** 13283\_2, 13283\_1, 13274\_2, 13278\_1, 13286\_1, 13260\_1, 13009\_1, 13006\_1, 13003\_1

**Remarks:**

Area covered with 200% Klein 3000 SSS contact is a rocky area.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
AWOIS	AWOIS # 10756	0.00	000.0	Primary

### Hydrographer Recommendations

The hydrographer recommends the object be retained as charted

### S-57 Data

**Geo object 1:** Cartographic symbol (\$CSYMB)

## Office Notes

Concur with clarification. Determined to be inadequate MBES coverage to prove or disprove 18' sounding. Retain 18' sounding as charted, no cartographic action necessary.



## 1.6) AWOIS #10757 - 12ft Sounding AWOIS #10757

### No Primary Survey Feature for this AWOIS Item

**Search Position:** 43° 03' 46.6" N, 070° 42' 02.7" W  
**Historical Depth:** 3.66 m  
**Search Radius:** 0  
**Search Technique:** [None]  
**Technique Notes:** [None]

#### History Notes:

HISTORY ■ h08090/54-- CS355; 14-FOOT SOUNDING (FROM H02360/1898,1:10,000) FOUND AND DEVELOPED. HYDROGRAPHER STATES THAT SHOALEST LL DEPTH WAS 15.4 FEET, 25 METERS NW OF CHARTED 14, YELLOW SAND AND PEBBLE BOTTOM. EVALUATOR STATES THAT 11-FOOT SOUNDING OBTAINED IN LAT. 43-03.78N, LONG. 70-42.08W. ■ H11014/00-01-- S-A910-WH; SIDE SCAN SONAR LOCATED A "ROCKY FEATURE" WHICH WAS SUBSEQUENTLY DEVELOPED WITH SWMB. 12-FOOT DEPTH OBTAINED IN LAT. 43-03-46.57N, LONG. 70-42-02.67W. EVALUATOR RECOMMENDS DELETING CHARTED 11-FOOT DEPTH AND CHARTING A 12-FOOT DEPTH AS SURVEYED. (UP 12/23/03, SJV)

### Survey Summary

**Charts Affected:** 13283\_1, 13274\_2, 13278\_1, 13286\_1, 13260\_1, 13009\_1, 13006\_1, 13003\_1

#### Remarks:

Area covered with 200% Klein 3000 SSS contact is a rocky area.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
AWOIS	AWOIS # 10757	0.00	000.0	Primary

### Hydrographer Recommendations

The hydrographer recommends the object be retained as charted

### S-57 Data

**Geo object 1:** Cartographic symbol (\$CSYMB)

## Office Notes

Concur with clarification. Determined to be inadequate MBES coverage to prove or disprove 12' sounding. Retain 12' sounding as charted, no cartographic action necessary.

## 1.7) AWOIS #10758 - 17ft Sounding AWOIS #10758

### No Primary Survey Feature for this AWOIS Item

**Search Position:** 43° 04' 24.3" N, 070° 42' 37.9" W  
**Historical Depth:** 5.18 m  
**Search Radius:** 0  
**Search Technique:** [None]  
**Technique Notes:** [None]

**History Notes:**

HISTORY ■ H08090/54-- CS355; PRESURVEY REVIEW ITEM NO. 13 ("COD ROCK"); 16-FOOT SOUNDING OBTAINED ON H02360/1898. LL DEPTH OF 18.6 FEET OBTAINED ON PRESENT SURVEY. CHARTED AS 18 FEET. ■ H11014/00-01; S-A910-WH; "VERY OBVIOUS OBJECT" DEVELOPED WITH SWMB. LD OF 17 FEET (5.39 METERS) OBTAINED IN LAT. 43-04-24.27N, LONG. 70-42-37.90W. EVALUATOR RECOMMENDS DELETING THE CHARTED 18-FOOT DEPTH AND CHARTING 17 COD ROCK AS SURVEYED. NOTE: USCP STATES THAT THIS ROCK IS MARKED BY A DISTINCT, VIOLENT EDDY JUST BEFORE LOW WATER SLACK. (UP 12/23/03, SJV)

### Survey Summary

**Charts Affected:** 13283\_2, 13283\_1, 13278\_1, 13286\_1, 13260\_1, 13009\_1, 13006\_1, 13003\_1

**Remarks:**

Item not surveyed

### Feature Correlation

Address	Feature	Range	Azimuth	Status
AWOIS	AWOIS # 10758	0.00	000.0	Primary
ChartGPs - ENC US5NH02M	Danger 98	3.09	046.6	Secondary (grouped)

### Hydrographer Recommendations

The hydrographer recommends the object be retained as charted

### S-57 Data

**Geo object 1:** Cartographic symbol (\$CSYMB)

## Office Notes

Concur with clarification. Inadequate coverage to prove or disprove 17' sounding. Retain 17' sounding as charted, no cartographic action necessary.

**1.8) AWOIS #10762 - 9ft OBSTN AWOIS #10762**

**No Primary Survey Feature for this AWOIS Item**

**Search Position:** 43° 04' 54.0" N, 070° 43' 14.0" W  
**Historical Depth:** [None]  
**Search Radius:** 0  
**Search Technique:** [None]  
**Technique Notes:** [None]

**History Notes:**

HISTORY ■ Charted rocks awash and 9 ft. sounding. ■ H8090/1954-- Charted rocks awash and 9 ft. sounding with foul area and ledge drawn on H8090 smooth sheet at the entrance to Spruce Creek and Back Channel, NE of Jamaica Island. Surrounding depths 17-27 ft. Approx. position of 9 ft sounding scaled in MapInfo from kap chart 13283: 43-04-54W, 70-43-14N. Entered 10/12/2000 DAS. ■ H11014/00-01-- S-A910-WH; NIETHER ADDRESSED NOR DISCUSSED BY THE HYROGRAPHER OR EVALUATOR. (UP 12/24/03, SJV)

**Survey Summary**

**Charts Affected:** 13283\_2, 13283\_1, 13278\_1, 13286\_1, 13260\_1, 13009\_1, 13006\_1, 13003\_1

**Remarks:**

Area covered with 200% Klein 3000 SSS contact is a rocky area.

**Feature Correlation**

Address	Feature	Range	Azimuth	Status
AWOIS	AWOIS # 10762	0.00	000.0	Primary

**Hydrographer Recommendations**

The hydrographer recommends the object be retained as charted

**S-57 Data**

**Geo object 1:** Obstruction (OBSTRN)

## Office Notes

Concur with clarification. No cartographic action necessary.

## 1.9) 33ft Wreck AWOIS #10763 - ANNE EL

### Primary Feature for AWOIS Item #10763

**Search Position:** 43° 05' 09.8" N, 070° 45' 44.6" W  
**Historical Depth:** 9.14 m  
**Search Radius:** 100  
**Search Technique:** SWMB, S2, DI, SD  
**Technique Notes:** [None]

#### History Notes:

HISTORY ■ LNM16/84--COE ADVISES THAT THE SUNKEN F/V "ANNE EL" EXISTS IN APPROX. POSITION LAT. 43-05-10N, LONG. 70-45-44W, IN APPROX. 58 FEET OF WATER AT MLW IN THE PISCATAQUA RIVER, PORTSMOUTH, NH. AN APPROX. CLEARANCE OF 53 FEET AT MLW EXISTS OVER THE REMAINS OF THE VESSEL. (ENT 10/12/00 DAS. ■ H11014/00-01-- S-A910-WH; TWO CONTACTS DEPICTING WRECKAGE WERE SELECTED AND DEVELOPED USING SWMB. A 30-FOOT (9.14 METERS) LD WAS OBTAINED IN LAT. 43-05-09.84N, 70-45-44.56W. ACCORDING TO LOCAL PILOTS, TRAIN WRECKAGE (AWOIS NO. 10764) WAS MOVED NEXT TO THIS F/V. DUE TIME CONSTRAINTS AND STRONG CURRENTS NO DIVE OPS CONDUCTED. EVALUATOR RECOMMENDS CHARTING A 30 WK AS SURVEYED. ■ ■ NOTE: CHART SCALE PREVENTS THE DEPICTION OF ALL THREE ITEMS IN THE AREA, NAMELY THE F/V, LOCOMOTIVE, AND TENDER. (UP 12/19/03,SJV)

### Survey Summary

**Survey Position:** 43° 05' 09.7" N, 070° 45' 44.7" W  
**Least Depth:** 10.02 m (= 32.86 ft = 5.477 fm = 5 fm 2.86 ft)  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh)  $\pm 1.968$  m ; TVU (TPEv)  $\pm 0.212$  m  
**Timestamp:** 2008-150.21:04:16.213 (05/29/2008)  
**Survey Line:** f00553 / nrt5\_s3002\_em3002\_mbes / 2008-150 / 088\_2103  
**Profile/Beam:** 310/93  
**Charts Affected:** 13283\_1, 13285\_1, 13278\_1, 13286\_1, 13260\_1, 13009\_1, 13006\_1, 13003\_1

#### Remarks:

The area was covered with 200% Klein 3000 SSS and 100% Simrad EM3002 MBES, final tides applied.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
f00553/nrt5_s3002_em3002_mbes/2008-150/088_2103	310/93	0.00	000.0	Primary
f00553/nrt5_s3002_klein3000_sss/2008-142/sonar_data080521134700	0001	4.43	206.8	Secondary (grouped)
AWOIS	AWOIS # 10763	4.76	224.2	Secondary

AWOIS	AWOIS # 10764	4.76	224.2	Secondary
ChartGPs - ENC US5NH01M	Danger 61	5.18	245.0	Secondary (grouped)
f00553/nrt5_s3002_klein3000_sss/2008-142/sonar_data080521134900	0002	6.40	357.6	Secondary
f00553/nrt5_s3002_klein3000_sss/2008-142/sonar_data080521134900	0001	10.87	221.2	Secondary

## Hydrographer Recommendations

The hydrographer recommends the OBSTN LD be updated to relect current Bathy data.

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

33ft (13283\_1, 13285\_1, 13278\_1, 13286\_1)

5 ½fm (13260\_1, 13009\_1, 13006\_1, 13003\_1)

## S-57 Data

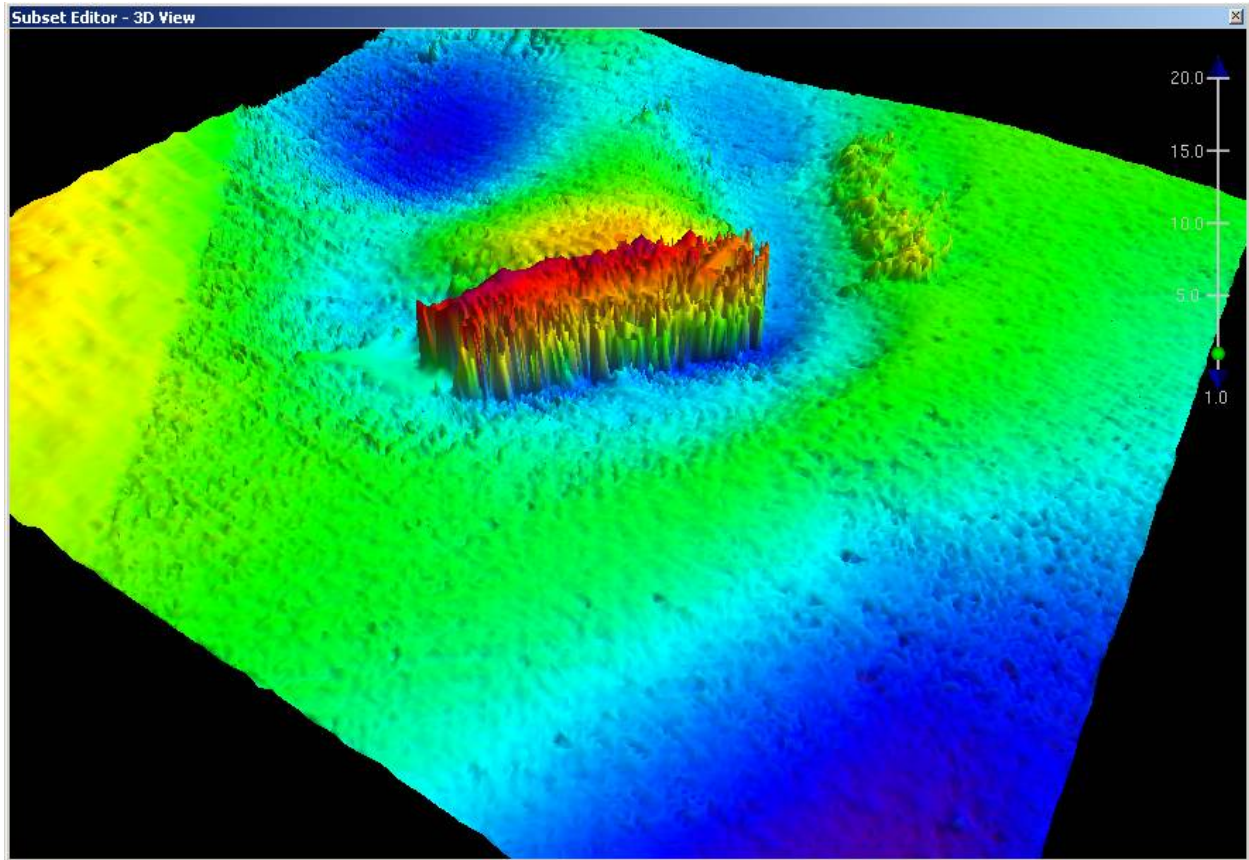
**Geo object 1:** Wreck (WRECKS)  
**Attributes:** CATWRK - 2:dangerous wreck  
 CONVIS - 2:not visual conspicuous  
 TECSOU - 2:found by side scan sonar  
 VALSOU - 10.017 m  
 VERDAT - 12:Mean lower low water  
 WATLEV - 3:always under water/submerged

## Office Notes

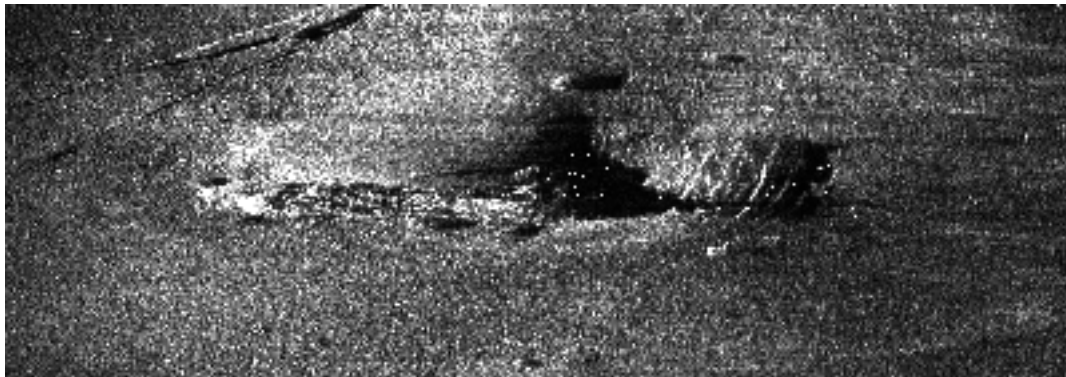
Concur.



### Feature Images



*Figure 1.9.1*



*Figure 1.9.2*

## 1.10) 10ft OBSTN AWOIS #11070

### Primary Feature for AWOIS Item #11070

**Search Position:** 43° 07' 16.3" N, 070° 49' 32.2" W  
**Historical Depth:** [None]  
**Search Radius:** 100  
**Search Technique:** VS, ES, MB, S2  
**Technique Notes:** [None]

#### History Notes:

HISTORY ■ Charted rock PA covered at MLLW. ■ CL1696/71--Portsmouth power squadron, 8-Nov.-1971; Item #6: A pair of barrel shaped buoys about 100 ft. appart have a nasty rock in between, which has stoven more than one hull during low water. Buoys have been placed for last 5 years. (ENT DAS 09/10/2001)

### Survey Summary

**Survey Position:** 43° 07' 13.9" N, 070° 49' 32.1" W  
**Least Depth:** 3.21 m (= 10.53 ft = 1.755 fm = 1 fm 4.53 ft)  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh)  $\pm 1.963$  m ; TVU (TPEv)  $\pm 0.194$  m  
**Timestamp:** 2008-150.18:54:18.938 (05/29/2008)  
**Survey Line:** f00553 / nrt5\_s3002\_em3002\_mbes / 2008-150 / 142\_1853  
**Profile/Beam:** 363/76  
**Charts Affected:** 13285\_1, 13260\_1, 13009\_1, 13006\_1, 13003\_1

#### Remarks:

The area was covered with 100% Klein 3000 SSS and developed with Simrad EM3002 MBES, final tides applied. The object is a rock located within the AWOIS radius.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
f00553/nrt5_s3002_em3002_mbes/2008-150/142_1853	363/76	0.00	000.0	Primary
f00553/nrt5_s3002_klein3000_sss/2008-142/sonar_data080521145700	0001	4.86	177.4	Secondary
AWOIS	AWOIS # 11070	75.53	177.7	Secondary
ChartGPs - ENC US5NH01M	Danger 40	89.21	178.1	Secondary (grouped)

## Hydrographer Recommendations

The hydrographer recommends the charted OBSTN be moved to surveyed position, LD added as surveyed and "PA" text removed.

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

10ft (13285\_1)

1 ¾fm (13260\_1, 13009\_1, 13006\_1, 13003\_1)

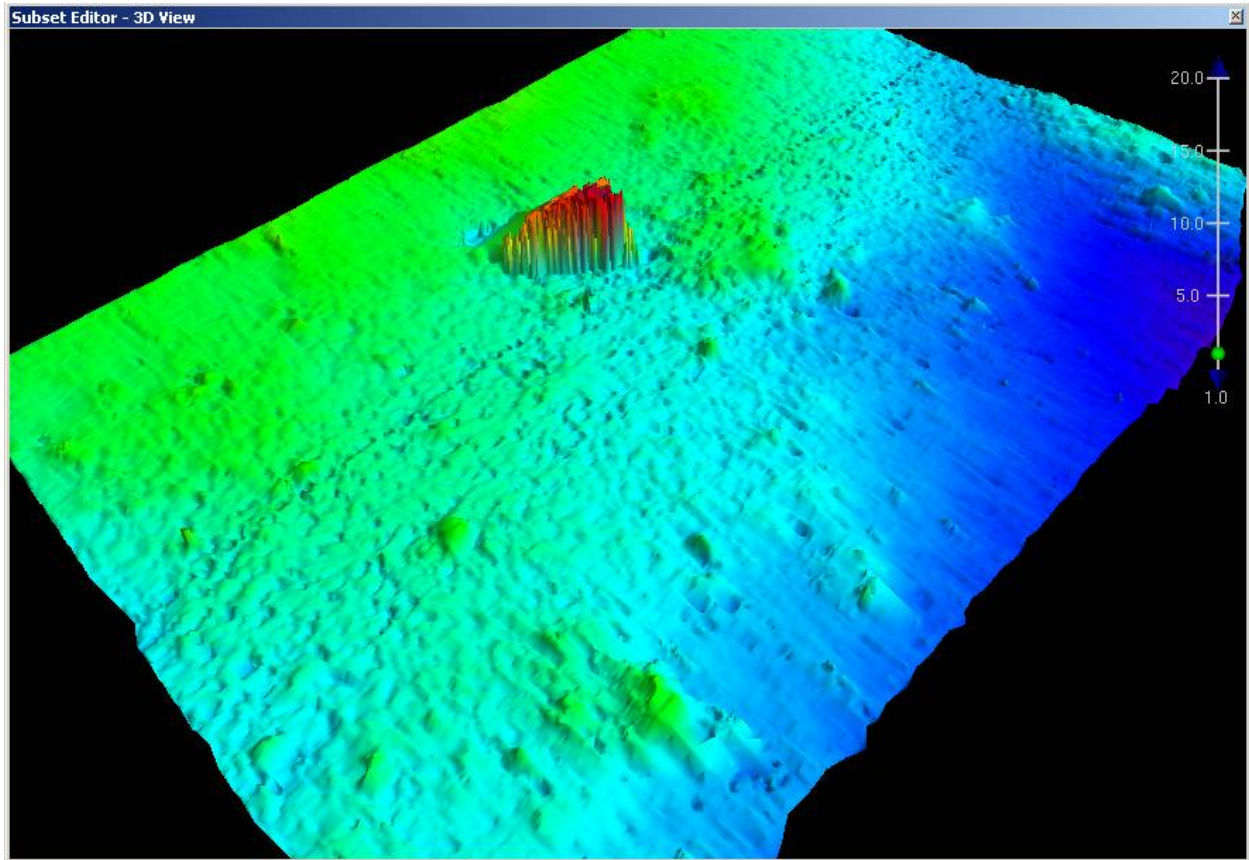
## S-57 Data

**Geo object 1:** Obstruction (OBSTRN)  
**Attributes:** QUASOU - 6:least depth known  
TECSOU - 2:found by side scan sonar  
VALSOU - 3.209 m  
VERDAT - 12:Mean lower low water  
WATLEV - 3:always under water/submerged

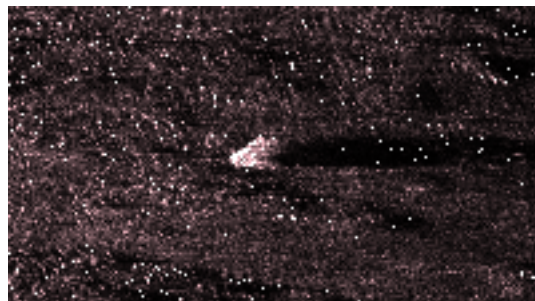
## Office Notes

Concur.

### Feature Images



*Figure 1.10.1*



*Figure 1.10.2*

## 1.11) 26ft Wreck AWOIS #11069

### Primary Feature for AWOIS Item #11069

**Search Position:** 43° 07' 16.5" N, 070° 49' 25.6" W  
**Historical Depth:** 7.01 m  
**Search Radius:** 100  
**Search Technique:** S2, MB, ES, DI  
**Technique Notes:** [None]

#### History Notes:

HISTORY ■ NM 2/70--Sunken barge reported; covered 21 ft at MLW. Position scaled 4140 yards, 274 deg. from Bolt Hill standpipe(corrected pos. of standpipe reported in NM 13/70; 43-07-07N, 70-46-40W). ■ NM 27/70--Wreck buoy discontinued at lat. 43-07-15.5N, lon. 70-49-27W. Wreck remains. (Ent. DAS 9/7/2001) ■ H11014/00-01-- S-A910-WH; WRECK LOCATED BY SIDE SCAN SONAR. SWMB OBTAINED A LD OF 23 FEET (7.26 METERS) IN LAT. 43-07-16.53N, LONG. 70-49-25.56W. EVALUATOR RECOMMENDS DELETING DANGEROUS WRECK AND NOTATION (21 FT REP) AND CHARTING A 23 WK AS SURVEYED. (UP 12/23/03, SJV)

### Survey Summary

**Survey Position:** 43° 07' 16.5" N, 070° 49' 25.4" W  
**Least Depth:** 7.91 m (= 25.94 ft = 4.324 fm = 4 fm 1.94 ft)  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh)  $\pm 1.966$  m ; TVU (TPEv)  $\pm 0.208$  m  
**Timestamp:** 2008-150.18:56:37.921 (05/29/2008)  
**Survey Line:** f00553 / nrt5\_s3002\_em3002\_mbes / 2008-150 / 146\_1856  
**Profile/Beam:** 394/220  
**Charts Affected:** 13285\_1, 13260\_1, 13009\_1, 13006\_1, 13003\_1

#### Remarks:

The area was covered with 200% Klein 3000 SSS and developed with Simrad EM3002 MBES, final tides applied. The object is a charted wreck, observed LD deeper than that charted.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
f00553/nrt5_s3002_em3002_mbes/2008-150/146_1856	394/220	0.00	000.0	Primary
ChartGPs - ENC US5NH01M	Danger 63	1.31	346.1	Secondary (grouped)
AWOIS	AWOIS # 11069	3.37	083.5	Secondary
f00553/nrt5_s3002_klein3000_sss/2008-142/sonar_data080521144600	0001	9.81	113.9	Secondary

f00553/nrt5_s3002_klein3000_sss/2008-142/sonar_data080521144600	0002	14.70	220.6	Secondary
f00553/nrt5_s3002_klein3000_sss/2008-142/sonar_data080521144900	0001	23.53	226.6	Secondary

## Hydrographer Recommendations

The hydrographer recommends the OBSTN LD be updated to reflect current Bathy data.

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

26ft (13285\_1)

4 ¼fm (13260\_1, 13009\_1, 13006\_1, 13003\_1)

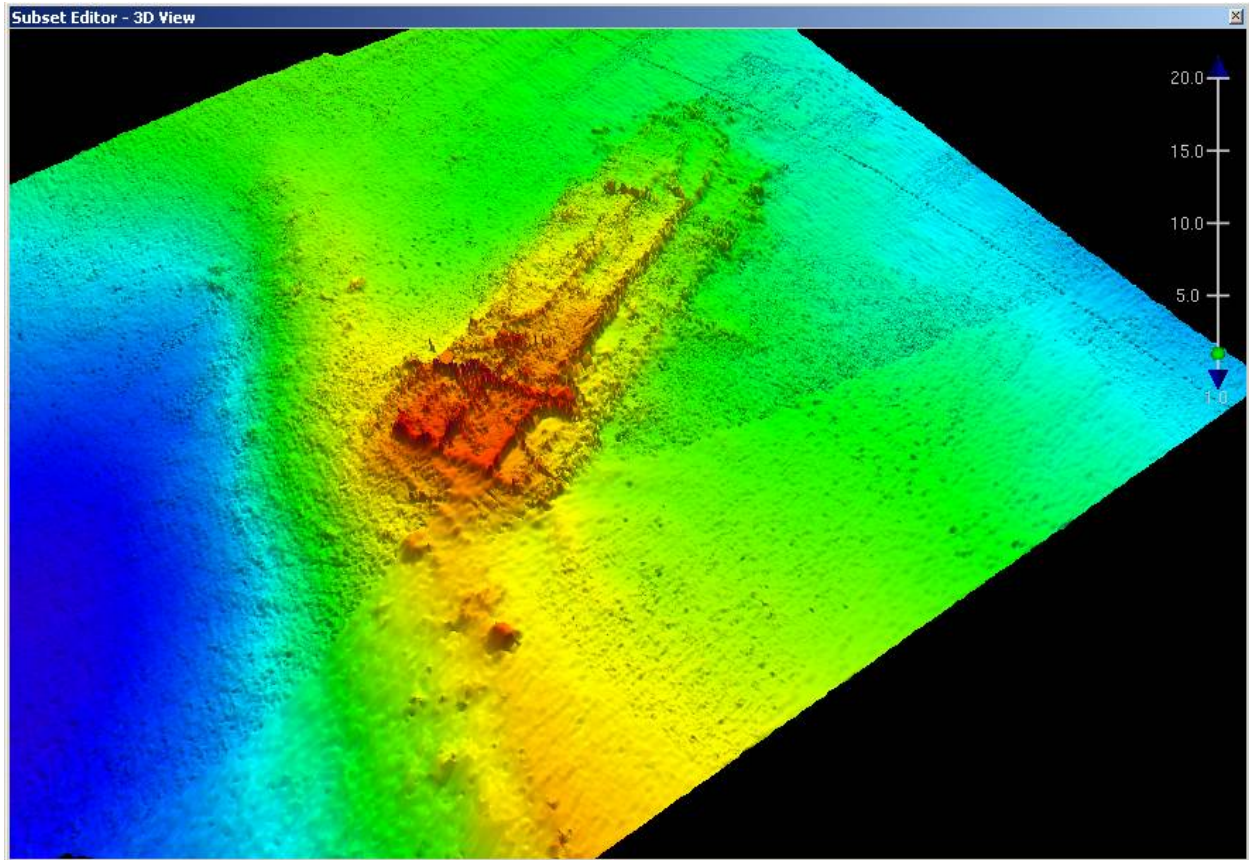
## S-57 Data

**Geo object 1:** Wreck (WRECKS)  
**Attributes:** CATWRK - 1:non-dangerous wreck  
 CONVIS - 2:not visual conspicuous  
 TECSOU - 2:found by side scan sonar  
 VALSOU - 7.908 m  
 VERDAT - 12:Mean lower low water  
 WATLEV - 3:always under water/submerged

## Office Notes

Concur.

### Feature Images



*Figure 1.11.1*

## 1.12) 10ft Sub-Piling AWOIS #11073

### Primary Feature for AWOIS Item #11073

**Search Position:** 43° 07' 31.3" N, 070° 49' 25.2" W  
**Historical Depth:** [None]  
**Search Radius:** 200  
**Search Technique:** VS, ES, S2, MB, DI  
**Technique Notes:** [None]

#### History Notes:

HISTORY ■ Charted submerged piles. ■ H08094/1954-- Uncharted pilings used for icebreakers at positions: ■ 43-07.55N, 70-49.54W ■ 43-07.56N, 70-49.49W ■ 43-07.53N, 70-49.45W ■ CL2188/1975-- USPS District 19, Portsmouth, NH, Item #4 submerged piles at lat. 43-07-31N, lon. 070-49-27W not observed on investigation. (ENT DAS 09/10/2001)

### Survey Summary

**Survey Position:** 43° 07' 31.1" N, 070° 49' 27.5" W  
**Least Depth:** 3.26 m (= 10.71 ft = 1.785 fm = 1 fm 4.71 ft)  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh)  $\pm 1.964$  m ; TVU (TPEv)  $\pm 0.190$  m  
**Timestamp:** 2008-150.19:04:14.043 (05/29/2008)  
**Survey Line:** f00553 / nrt5\_s3002\_em3002\_mbes / 2008-150 / 147\_1903  
**Profile/Beam:** 648/202  
**Charts Affected:** 13285\_1, 13260\_1, 13009\_1, 13006\_1, 13003\_1

#### Remarks:

The navigable area was covered with 100% Klien 3000 SSS and developed with Simrad EM3002 MBES. The charted piles were confirmed with visual scan. A small OBSTN was noted in the SSS trace.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
f00553/nrt5_s3002_em3002_mbes/2008-150/147_1903	648/202	0.00	000.0	Primary
f00553/nrt5_s3002_klein3000_sss/2008-142/sonar_data080521150300	0001	4.77	126.0	Secondary
AWOIS	AWOIS # 11073	53.32	263.1	Secondary



## Hydrographer Recommendations

The hydrographer recommends the object be charted as an OBSTN, LD and position as surveyed.

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

10ft (13285\_1)

1 ¾fm (13260\_1, 13009\_1, 13006\_1, 13003\_1)

## S-57 Data

**Geo object 1:** Obstruction (OBSTRN)  
**Attributes:** QUASOU - 6:least depth known  
TECSOU - 2:found by side scan sonar  
VALSOU - 3.264 m  
VERDAT - 12:Mean lower low water  
WATLEV - 3:always under water/submerged

## Office Notes

Concur.

### Feature Images

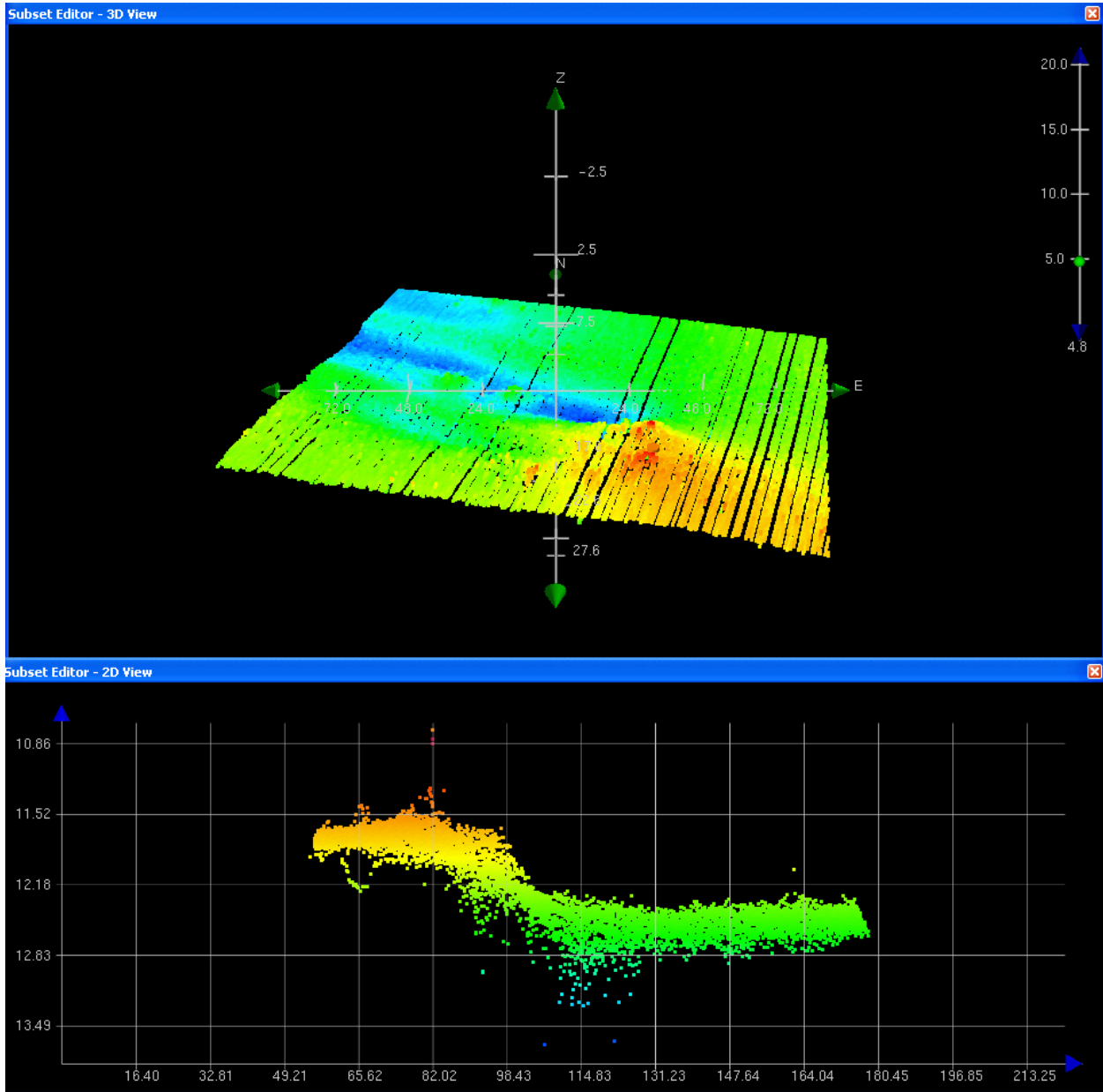
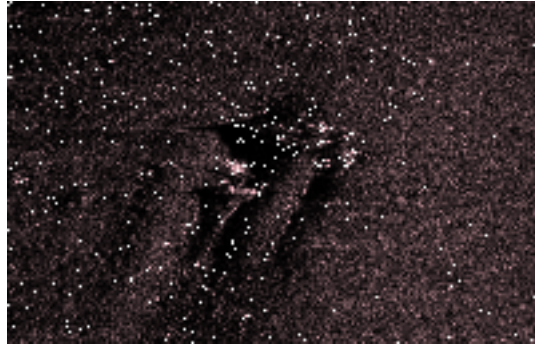


Figure 1.12.1



*Figure 1.12.2*

# F00553 Charted Features Report

**Registry Number:** F00553  
**State:** New Hampshire  
**Locality:** Portsmouth  
**Sub-locality:** Portsmouth harbor and Piscataqua River  
**Project Number:** OPR-A321-NRT5-08  
**Survey Date:** 06/27/2008

## Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
13283	20th	10/01/2007	1:20,000 (13283_1) 1:10,000 (13283_2)	USCG LNM: 03/18/2008 (04/15/2008) NGA NTM: None (04/26/2008)
13285	11th	07/01/2005	1:20,000 (13285_1)	USCG LNM: 10/23/2007 (04/15/2008) NGA NTM: None (04/26/2008)
13286	30th	03/01/2004	1:80,000 (13286_1)	[L]NTM: ?
13278	26th	06/01/2005	1:80,000 (13278_1)	[L]NTM: ?
13260	39th	06/01/2003	1:378,838 (13260_1)	[L]NTM: ?
13009	32nd	07/01/2006	1:500,000 (13009_1)	[L]NTM: ?
13006	33rd	04/01/2006	1:675,000 (13006_1)	[L]NTM: ?
13003	48th	10/01/2004	1:1,200,000 (13003_1)	[L]NTM: ?

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

## Features

No.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	Defense Fuel Pier Northwest Light	Obstruction	[None]	43° 06' 29.6" N	070° 47' 57.1" W	---
1.2	Defense Fuel Pier Southeast Light	GP	[None]	43° 06' 28.2" N	070° 47' 53.2" W	---
1.3	Navy Floating Dock	Stationary structure, floating or fixed	[None]	43° 04' 48.7" N	070° 44' 28.3" W	---
1.4	Navy Floating Dock	Stationary structure, floating or fixed	[None]	43° 04' 49.2" N	070° 44' 28.8" W	---
1.5	Floating Dock	Stationary structure, floating or fixed	[None]	43° 04' 56.4" N	070° 43' 23.7" W	---
1.6	Floating Pier & Dock - Danger 109	Stationary structure, floating or fixed	[None]	43° 04' 55.9" N	070° 43' 06.4" W	---
1.7	Floating Dock	Stationary structure, floating or fixed	[None]	43° 04' 57.9" N	070° 43' 06.3" W	---
1.8	Buoy "CG"	GP	[None]	43° 06' 47.9" N	070° 48' 22.5" W	---

**1 - DR\_Charted**

## 1.1) Defense Fuel Pier Northwest Light

### Survey Summary

**Survey Position:** 43° 06' 29.6" N, 070° 47' 57.1" W  
**Least Depth:** [None]  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh) [None] ; TVU (TPEv) [None]  
**Timestamp:** [None]  
**GP Dataset:** ChartGPs - ENC US5NH01M  
**GP No.:** AToN 33  
**Charts Affected:** 13285\_1, 13260\_1, 13009\_1, 13006\_1, 13003\_1

#### Remarks:

Structure is in a ruinous condition.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - ENC US5NH01M	AToN 33	0.00	000.0	Primary

### Hydrographer Recommendations

The hydrographer recommends the the object be charted as ruins.

### S-57 Data

**Geo object 1:** Obstruction (OBSTRN)  
**Attributes:** CONDTN - 2:ruined  
 NATCON - 6,7:wooden,metal  
 WATLEV - 2:always dry

### Office Notes

Concur. No cartographic action necessary. Pier retained from ENC and CONDTN attribute updated to "ruined".

## Feature Images



*Figure 1.1.1*

## 1.2) Defense Fuel Pier Southeast Light

### Survey Summary

**Survey Position:** 43° 06' 28.2" N, 070° 47' 53.2" W  
**Least Depth:** [None]  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh) [None] ; TVU (TPEv) [None]  
**Timestamp:** [None]  
**GP Dataset:** ChartGPs - ENC US5NH01M  
**GP No.:** AToN 34  
**Charts Affected:** 13285\_1, 13260\_1, 13009\_1, 13006\_1, 13003\_1

**Remarks:**

Light structure is damaged. Structure is in a ruinous condition.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - ENC US5NH01M	AToN 34	0.00	000.0	Primary

### Hydrographer Recommendations

The hydrographer recommends the the object be charted as ruins.

### S-57 Data

**Geo object 1:** Light (LIGHTS)

### Office Notes

Concur. No cartographic action necessary. Pier retained from ENC and CONDTN attribute updated to "ruined".



## Feature Images



*Figure 1.2.1*

## 1.3) Navy Floating Dock

### Survey Summary

**Survey Position:** 43° 04' 48.7" N, 070° 44' 28.3" W  
**Least Depth:** [None]  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh) [None] ; TVU (TPEv) [None]  
**Timestamp:** [None]  
**GP Dataset:** ChartGPs - ENC US5NH02M  
**GP No.:** Danger 6  
**Charts Affected:** 13283\_2, 13283\_1, 13278\_1, 13286\_1, 13260\_1, 13009\_1, 13006\_1, 13003\_1

#### Remarks:

The Object is currently attributed as an OBSTN(crib). The object is a floating dock.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - ENC US5NH02M	Danger 6	0.00	000.0	Primary

### Hydrographer Recommendations

The hydrographer recommends the object be retained as charted as a pier structure.

### S-57 Data

**Geo object 1:** Shoreline Construction (SLCONS)  
**Attributes:** CATSLC - 4:pier ( jetty)  
 NATCON - 6,7:wooden,metal  
 SORDAT - 20080529  
 STATUS - 1:permanent  
 WATLEV - 2:always dry

### Office Notes

Concur. Retain charted pier. No cartographic action necessary.

## 1.4) Navy Floating Dock

### Survey Summary

**Survey Position:** 43° 04' 49.2" N, 070° 44' 28.8" W  
**Least Depth:** [None]  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh) [None] ; TVU (TPEv) [None]  
**Timestamp:** [None]  
**GP Dataset:** ChartGPs - ENC US5NH02M  
**GP No.:** Danger 7  
**Charts Affected:** 13283\_2, 13283\_1, 13278\_1, 13286\_1, 13260\_1, 13009\_1, 13006\_1, 13003\_1

**Remarks:**

The Object is currently attributed as an OBSTN(crib). The object is a floating dock.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - ENC US5NH02M	Danger 7	0.00	000.0	Primary

### Hydrographer Recommendations

The hydrographer recommends the object be retained as charted as a pier structure.

### S-57 Data

**Geo object 1:** Shoreline Construction (SLCONS)  
**Attributes:** CATSLC - 4:pier ( jetty)  
 SORDAT - 20080529  
 WATLEV - 2:always dry

### Office Notes

Concur with clarification. No cartographic action necessary. Pier retained from ENC and CONDTN attribute updated from "ruined".

## 1.5) Floating Dock

### Survey Summary

**Survey Position:** 43° 04' 56.4" N, 070° 43' 23.7" W  
**Least Depth:** [None]  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh) [None] ; TVU (TPEv) [None]  
**Timestamp:** [None]  
**GP Dataset:** ChartGPs - ENC US5NH02M  
**GP No.:** Danger 10  
**Charts Affected:** 13283\_2, 13283\_1, 13278\_1, 13286\_1, 13260\_1, 13009\_1, 13006\_1, 13003\_1

**Remarks:**

The object attributed as an OBSTN crib. The object is floating dock.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - ENC US5NH02M	Danger 10	0.00	000.0	Primary

### Hydrographer Recommendations

The hydrographer recommends the object be retained as charted as a pier structure.

### S-57 Data

**Geo object 1:** Shoreline Construction (SLCONS)  
**Attributes:** CATSLC - 4:pier ( jetty)  
 NATCON - 6,7:wooden,metal  
 SORDAT - 20080529  
 STATUS - 1:permanent  
 WATLEV - 2:always dry

### Office Notes

Concur. Retain as charted, no cartographic action necessary.

## 1.6) Floating Pier Dock - Danger 109

### Survey Summary

**Survey Position:** 43° 04' 55.9" N, 070° 43' 06.4" W  
**Least Depth:** [None]  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh) [None] ; TVU (TPEv) [None]  
**Timestamp:** [None]  
**GP Dataset:** ChartGPs - ENC US5NH02M  
**GP No.:** Danger 109  
**Charts Affected:** 13283\_2, 13283\_1, 13278\_1, 13286\_1, 13260\_1, 13009\_1, 13006\_1, 13003\_1

#### Remarks:

The area was covered with 100% Klein 3000 SSS no evidence of this wreck was noted in the SSS trace. There was no visually conspicuous wreckage located at charted position at low tide. Currently a private floating pier is located over the charted wreck. The hydrographer believes that this wreck is mis-charted and is intended to describe the charted wreck immediately to the south of the charted wreck (AWOIS 10753).

### Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - ENC US5NH02M	Danger 109	0.00	000.0	Primary

### Hydrographer Recommendations

The hydrographer recommends the charted wreck be removed from the chart and the pier structure added.

### S-57 Data

**Geo object 1:** Cartographic symbol (\$CSYMB)

### Office Notes

Concur with clarification. Remove charted wreck from chart. The peir is discussed as a seperate feature in the evaluation report.

### Feature Images



Figure 1.6.1

## 1.7) Floating Dock

### Survey Summary

**Survey Position:** 43° 04' 57.9" N, 070° 43' 06.3" W  
**Least Depth:** [None]  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh) [None] ; TVU (TPEv) [None]  
**Timestamp:** [None]  
**GP Dataset:** ChartGPs - ENC US5NH02M  
**GP No.:** AToN 62  
**Charts Affected:** 13283\_2, 13283\_1, 13278\_1, 13286\_1, 13260\_1, 13009\_1, 13006\_1, 13003\_1

#### Remarks:

The Object is currently attributed as an OBSTN(crib).

### Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - ENC US5NH02M	AToN 62	0.00	000.0	Primary

### Hydrographer Recommendations

The hydrographer recommends the object be retained as charted as a pier structure.

### S-57 Data

**Geo object 1:** Shoreline Construction (SLCONS)  
**Attributes:** CATSLC - 4:pier (jetty)  
 NATCON - 6,7:wooden,metal  
 SORDAT - 20080529  
 STATUS - 1:permanent  
 WATLEV - 2:always dry

### Office Notes

Concur. No cartographic action necessary.

### Feature Images



Figure 1.7.1



## 1.8) Buoy "CG"

### Survey Summary

**Survey Position:** 43° 06' 47.9" N, 070° 48' 22.5" W  
**Least Depth:** [None]  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh) [None] ; TVU (TPEv) [None]  
**Timestamp:** 2008-179.07:34:12 (06/27/2008)  
**GP Dataset:** ChartGPs - Digitized  
**GP No.:** 1  
**Charts Affected:** 13285\_1, 13260\_1, 13009\_1, 13006\_1, 13003\_1

#### Remarks:

Buoy is charted as being marked "GC 9." Actual buoy marking is "CG" not "GC" and is not maked with a number "9"

### Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	1	0.00	000.0	Primary

### Hydrographer Recommendations

The hydrographer recommends the object be charted as a buoy marked with "CG"

### S-57 Data

**Geo object 1:** Mooring/warping facility (MORFAC)  
**Attributes:** CATMOR - 7:mooring buoy

### Office Notes

Concur. Modify buoy marking to "CG" and defer to MCD for final charting disposition. Buoy was located at the position charted.

# F00553 Uncharted Feature Report

**Registry Number:** F00553  
**State:** New Hampshire  
**Locality:** Portsmouth  
**Sub-locality:** Portsmouth harbor and Piscataqua River  
**Project Number:** OPR-A321-NRT5-08  
**Survey Dates:** 05/29/2008 - 06/27/2008

## Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
13283	20th	10/01/2007	1:20,000 (13283_1) 1:10,000 (13283_2)	USCG LNM: 03/18/2008 (04/15/2008) NGA NTM: None (04/26/2008)
13285	11th	07/01/2005	1:20,000 (13285_1)	USCG LNM: 10/23/2007 (04/15/2008) NGA NTM: None (04/26/2008)
13274	26th	04/01/2005	1:40,000 (13274_2)	[L]NTM: ?
13286	30th	03/01/2004	1:80,000 (13286_1)	[L]NTM: ?
13278	26th	06/01/2005	1:80,000 (13278_1)	[L]NTM: ?
13260	39th	06/01/2003	1:378,838 (13260_1)	[L]NTM: ?
13009	32nd	07/01/2006	1:500,000 (13009_1)	[L]NTM: ?
13006	33rd	04/01/2006	1:675,000 (13006_1)	[L]NTM: ?
13003	48th	10/01/2004	1:1,200,000 (13003_1)	[L]NTM: ?

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

## Features

No.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	SS 7ft OBSTN 0022 Ruins	Obstruction	[None]	43° 05' 15.8" N	070° 45' 33.6" W	---
1.2	30ft Rock 449/122	Rock	9.10 m	43° 04' 14.9" N	070° 42' 24.1" W	---
1.3	562/79 Rock	Rock	9.06 m	43° 04' 15.4" N	070° 42' 24.5" W	---
1.4	Barge Wreck - awash	Wreck	[None]	43° 06' 16.4" N	070° 47' 48.6" W	---

**1 - DR\_UnCharted**

## 1.1) SS 7ft OBSTN 0022 Ruins

### Survey Summary

**Survey Position:** 43° 05' 15.8" N, 070° 45' 33.6" W  
**Least Depth:** [None]  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh) [None] ; TVU (TPEv) [None]  
**Timestamp:** 2008-175.01:17:08 (06/23/2008)  
**Survey Line:** f00553 / nrt5\_s3002\_klein3000\_sss / 2008-142 / sonar\_data080521153700  
**Contact/Point:** 0022/1  
**Charts Affected:** 13283\_1, 13285\_1, 13278\_1, 13286\_1, 13260\_1, 13009\_1, 13006\_1, 13003\_1

#### Remarks:

The area was covered with 100% Klein 3000 SSS. The contacts are the ruins of two piers. The ruins extend to the northern edge of small boat bridge bypass channel.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
f00553/nrt5_s3002_klein3000_sss/2008-142/sonar_data080521153700	0022	0.00	000.0	Primary
f00553/nrt5_s3002_em3002_mbes/2008-150/089_2106	258/18	4.58	081.4	Secondary
f00553/nrt5_s3002_klein3000_sss/2008-142/sonar_data080521153700	0021	6.99	249.0	Secondary (grouped)
f00553/nrt5_s3002_klein3000_sss/2008-142/sonar_data080521153700	0019	41.59	206.8	Secondary (grouped)

### Hydrographer Recommendations

The hydrographer recommends the object be charted as ruins extending to the SW end of the "exposed at low tide" line.

### S-57 Data

**Geo object 1:** Obstruction (OBSTRN)  
**Attributes:** CONDTN - 2:ruined  
 NATCON - 6:wooden  
 QUASOU - 2:depth unknown  
 TECSOU - 2:found by side scan sonar  
 VERDAT - 12:Mean lower low water  
 WATLEV - 1:partly submerged at high water

## Office Notes

Do not concur. There is no room to chart the obstruction considering the charted features. Obstruction in not navigationally significant. No cartographic action necessary.

## Feature Images



*Figure 1.1.1*



Figure 1.1.2

## 1.2) 30ft Rock 449/122

### Survey Summary

**Survey Position:** 43° 04' 14.9" N, 070° 42' 24.1" W  
**Least Depth:** 9.10 m (= 29.86 ft = 4.977 fm = 4 fm 5.86 ft)  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh)  $\pm 1.963$  m ; TVU (TPEv)  $\pm 0.211$  m  
**Timestamp:** 2008-150.17:52:22.697 (05/29/2008)  
**Survey Line:** f00553 / nrt5\_s3002\_em3002\_mbes / 2008-150 / 038\_1751  
**Profile/Beam:** 449/122  
**Charts Affected:** 13283\_2, 13283\_1, 13274\_2, 13278\_1, 13286\_1, 13260\_1, 13009\_1, 13006\_1, 13003\_1

#### Remarks:

The area was covered with 200% Klein 3000 SSS developed with Simrad EM3002 MBES, final tides applied. The object is a rock, LD shallower than charted depths in the area. The object is outside (seaward of) the 30' contour line.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
f00553/nrt5_s3002_em3002_mbes/2008-150/038_1751	449/122	0.00	000.0	Primary
f00553/nrt5_s3002_klein3000_sss/2008-142/sonar_data080521124900	0003	1.53	255.4	Secondary

### Hydrographer Recommendations

The Hydrographer recommends the 30' contour line be moved seaward to include the contact.

### S-57 Data

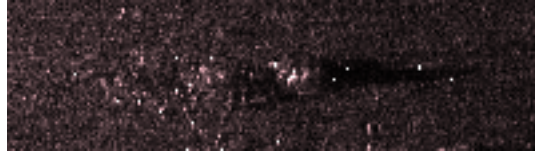
**Geo object 1:** Underwater rock / awash rock (UWTROC)  
**Attributes:** QUASOU - 6:least depth known  
 TECSOU - 2:found by side scan sonar  
 VALSOU - 9.102 m  
 VERDAT - 12:Mean lower low water  
 WATLEV - 3:always under water/submerged



## Office Notes

Concur with clarification. Do not chart 30ft rock as there is a 29ft rock nearby. Recommend to chart 30ft contour based on current survey data.

## Feature Images



*Figure 1.2.1*

### 1.3) 562/79 Rock

#### Survey Summary

**Survey Position:** 43° 04' 15.4" N, 070° 42' 24.5" W  
**Least Depth:** 9.06 m (= 29.72 ft = 4.954 fm = 4 fm 5.72 ft)  
**TPU ( $\pm 1.96\sigma$ ):** **THU (TPEh)**  $\pm 1.966$  m ; **TVU (TPEv)**  $\pm 0.207$  m  
**Timestamp:** 2008-150.17:52:28.371 (05/29/2008)  
**Survey Line:** f00553 / nrt5\_s3002\_em3002\_mbes / 2008-150 / 038\_1751  
**Profile/Beam:** 562/79  
**Charts Affected:** 13283\_2, 13283\_1, 13274\_2, 13278\_1, 13286\_1, 13260\_1, 13009\_1, 13006\_1, 13003\_1

#### Remarks:

The area was covered with 200% Klein 3000 SSS developed with Simrad EM3002 MBES, final tides applied. The object is a rock of insignificant height, LD in agreement with charted soundings.

#### Feature Correlation

Address	Feature	Range	Azimuth	Status
f00553/nrt5_s3002_em3002_mbes/2008-150/038_1751	562/79	0.00	000.0	Primary
f00553/nrt5_s3002_klein3000_sss/2008-142/sonar_data080521124900	0002	2.27	327.5	Secondary

#### Hydrographer Recommendations

The hydrographer recommends not charting action.

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

29ft (13283\_2, 13283\_1, 13274\_2, 13278\_1, 13286\_1)

5fm (13260\_1, 13009\_1, 13006\_1, 13003\_1)

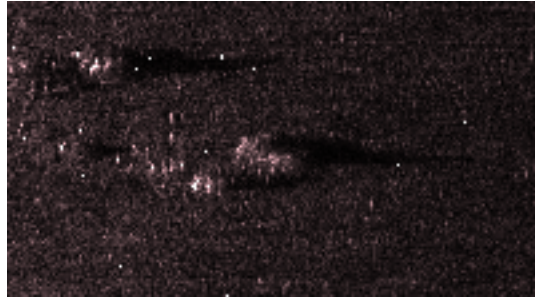
#### S-57 Data

**Geo object 1:** Underwater rock / awash rock (UWTROC)  
**Attributes:** QUASOU - 6:least depth known  
 TECSOU - 2:found by side scan sonar  
 VALSOU - 9.059 m  
 VERDAT - 12:Mean lower low water  
 WATLEV - 3:always under water/submerged

## Office Notes

Do not concur. Chart 29 ft rock.

## Feature Images



*Figure 1.3.1*

## 1.4) Barge Wreck - awash

### Survey Summary

**Survey Position:** 43° 06' 16.4" N, 070° 47' 48.6" W  
**Least Depth:** [None]  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh) [None] ; TVU (TPEv) [None]  
**Timestamp:** 2008-179.07:45:49 (06/27/2008)  
**GP Dataset:** ChartGPs - Digitized  
**GP No.:** 2  
**Charts Affected:** 13285\_1, 13260\_1, 13009\_1, 13006\_1, 13003\_1

#### Remarks:

Visually conspicuous wreck noted during ENC verification. The object is located in a shallow area and a DP could not be safely obtained over the item. GP generated in Pydro.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	2	0.00	000.0	Primary

### Hydrographer Recommendations

The hydrographer recommends the object be charted as an exposed wreck.

### S-57 Data

**Geo object 1:** Wreck (WRECKS)  
**Attributes:** CATWRK - 1:non-dangerous wreck  
 CONVIS - 1:visual conspicuous  
 WATLEV - 1:partly submerged at high water

### Office Notes

Concur with clarification. Chart as wreck area based on most up to date orthoimagery available.

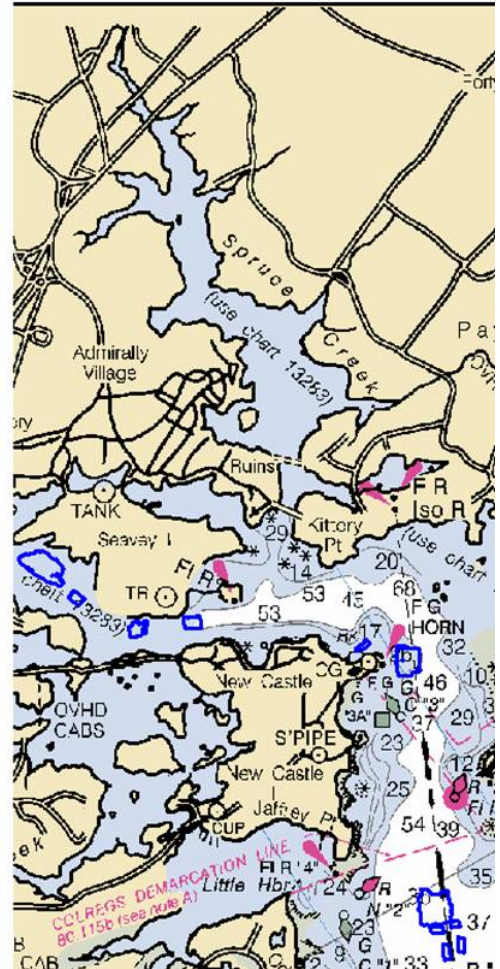
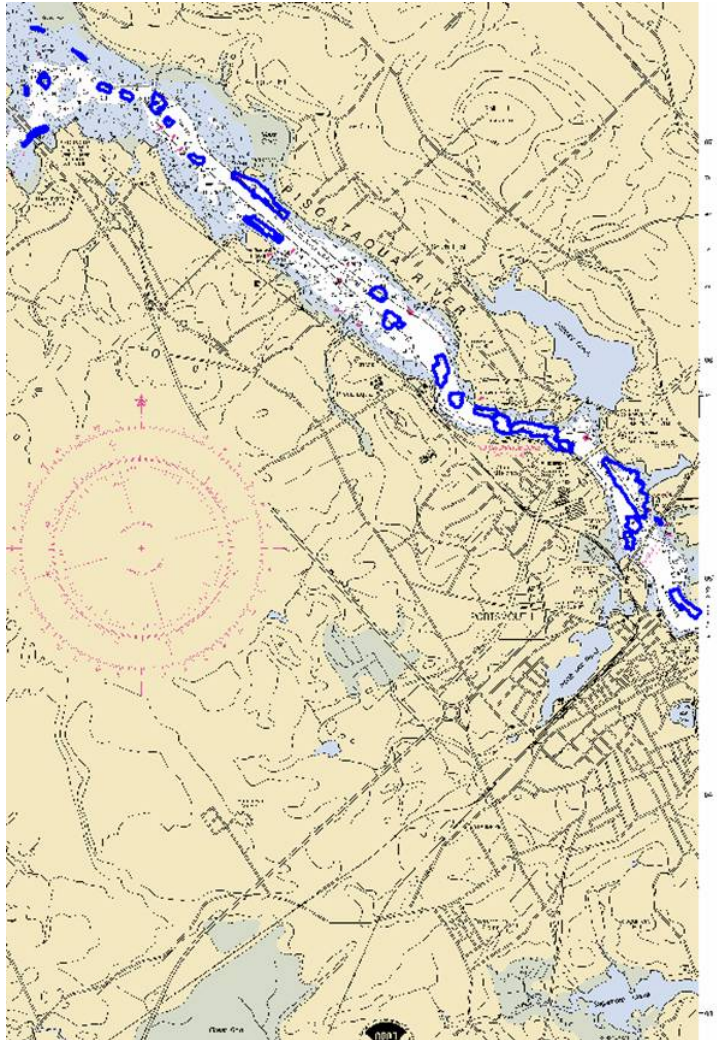
### Feature Images



*Figure 1.4.1*

### APPENDIX III

#### PROGRESS SKETCH





**APPENDIX IV**

**TIDES AND WATER LEVELS**



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

**TIDE NOTE FOR HYDROGRAPHIC SURVEY**

**DATE :** July 7, 2008

**HYDROGRAPHIC BRANCH:** Atlantic  
**HYDROGRAPHIC PROJECT:** OPR-A321-NRT5-2008  
**HYDROGRAPHIC SHEET:** F00553

**LOCALITY:** Portsmouth Harbor and Piscataqua River, NH  
**TIME PERIOD:** May 21 - 29, 2008

**TIDE STATION USED:** 842-3898 Fort Point, NH  
Lat. 43° 4.30'N Long. 070° 42.7' W

**PLANE OF REFERENCE (MEAN LOWER LOW WATER):** 0.000 meters  
**HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE:** 2.744 meters

**REMARKS: RECOMMENDED ZONING**

**Use zone(s) identified as:** PIS1, PIS2, PIS5, PIS7, PIS8, PIS9,  
PIS10, PIS11, PIS13, PIS14, PIS15, PIS17,  
PIS18, PIS19, PIS20, PIS25 & NA169

**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).

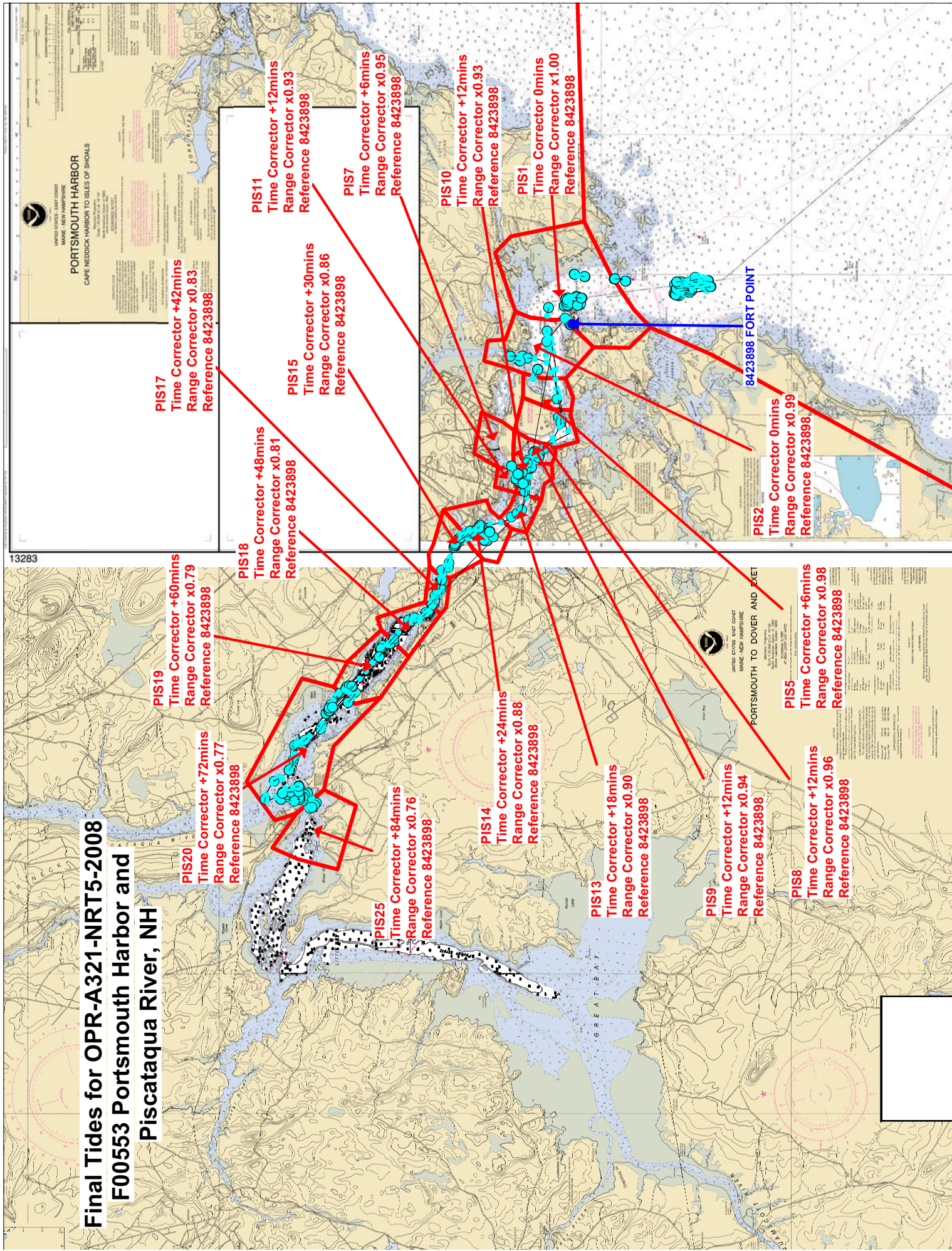
**Stephen K. Gill**

Digitally signed by Stephen K. Gill  
DN: c=US, st=Maryland, l=Silver Spring, ou=Center for  
Operational Oceanographic Products & Serv., o=National  
Oceanic and Atmospheric Administration, cn=Stephen K. Gill,  
email=Stephen.Gill@noaa.gov  
Date: 2008.07.10 18:42:06 -04'00'

CHIEF, PRODUCTS AND SERVICES DIVISION



# Final Tides for OPR-A321-NRT5-2008 F00553 Portsmouth Harbor and Piscataqua River, NH



**APPENDIX V**  
**SUPPLEMENTAL SURVEY RECORDS AND CORRESPONDENCES**

**V.1. COAST PILOT REPORT, NOAA FORM 77-6**

No corrections or additions required.

**V.2. BOTTOM SAMPLE, NOAA FORM 75-44**

No bottom samples were taken.












**V.3. AIDS TO NAVIGATION, NOAA FORM 76-40**

As noted above, one private floating aid was found to be charted with inaccurate markings and is recommended to be updated with current data. No other AToN's were noted to be incorrectly positioned or charted.

Sun Java- System Messenger Express    Welcome Matthew Jaskoski     Help     Log Out


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Matthew.Jaskoski@noaa.gov: Sent

Compose    Reply    Reply All    Forward    Delete    Printable    Add Addresses    Previous    Next    Close

---

From <[Matthew.Jaskoski@noaa.gov](mailto:Matthew.Jaskoski@noaa.gov)> 

Sent Monday, June 30, 2008 12:23 pm

To [MCD DTON <mcd.dton@noaa.gov>](mailto:MCD.DTON@noaa.gov) , [NC Larry Krepp <lawrence.t.krepp@noaa.gov>](mailto:NC.Larry.Krepp@noaa.gov)

Cc [NRB Christopher Hare <Christopher.Hare@noaa.gov>](mailto:Christopher.Hare@noaa.gov)

Subject OPR-A321-NRT5-08, F00553 DTON

Attachments [F00553\\_01.zip](#) 273K

Gentlemen,

Attached is a DTON report pertaining to three uncharted features noted within the channel at Portsmouth, NH. All three items are OBSTN's with LD shallower than the charted channel depth of 35'. All items were found with Klein 3000 SSS developed with Simrad EM3002 MBES and have verified (not final/smooth) tides applied.

regards all,

Matt

Matthew Jaskoski LTjg/NOAA  
OIC NOAA NRT5 Northeast  
718-702-8973

UNH pier correction - Sent for bert.ho@noaa.gov - Netscape 7.2

File Edit View Go Message Tools Window Help

Get Msgs Compose Reply Reply All Forward Next Junk Delete



**Subject:** UNH pier correction

**From:** Bert Ho <bert.ho@noaa.gov>

**Date:** 6/9/2008 8:42 AM

**To:** Christopher Hare <Christopher.Hare@noaa.gov>

**Attachments:**

R051116A.S5F  
Pier.DAT  
Pier.ID

Hi Chris,

I was told to send this correction to you. We walked the new UNH/NOAA pier for the HASSLER while we were up there with our Trimble backpack. The chart is drawn based on the old USCG pier...which is not there anymore (new pier is built in its place). Anyways, not sure if this all goes to you or if you want us to send it elsewhere. I've included the raw Trimble Pathfinder office file, the raw Mapinfo Table, and an image from our data overlayed on Google Earth. Ok, let me know if you have any problems viewing it. Thanks.

-Bert



**Subject:** F00553  
**From:** "katrina.wyllie" <katrina.wyllie@noaa.gov>  
**Date:** Fri, 17 Apr 2009 13:04:28 -0400  
**To:** matt.wingate@noaa.gov

Matt,

I am at the Atlantic Hydrographic Branch working on an NRT-5 survey, F00553. This survey was from May of 2008, Portsmouth. From what our files show, you were not informed of the three DTON submissions. The three DTONs are all rocks within a USACE channel. I have attached a DTON report with our office notes in red for your records. I have also included a separate word document informing you about a fourth sounding shoaler than the controlling depth of the channel that was not addressed by the field. If you need more information from me, please don't hesitate to ask.

Sincerely,

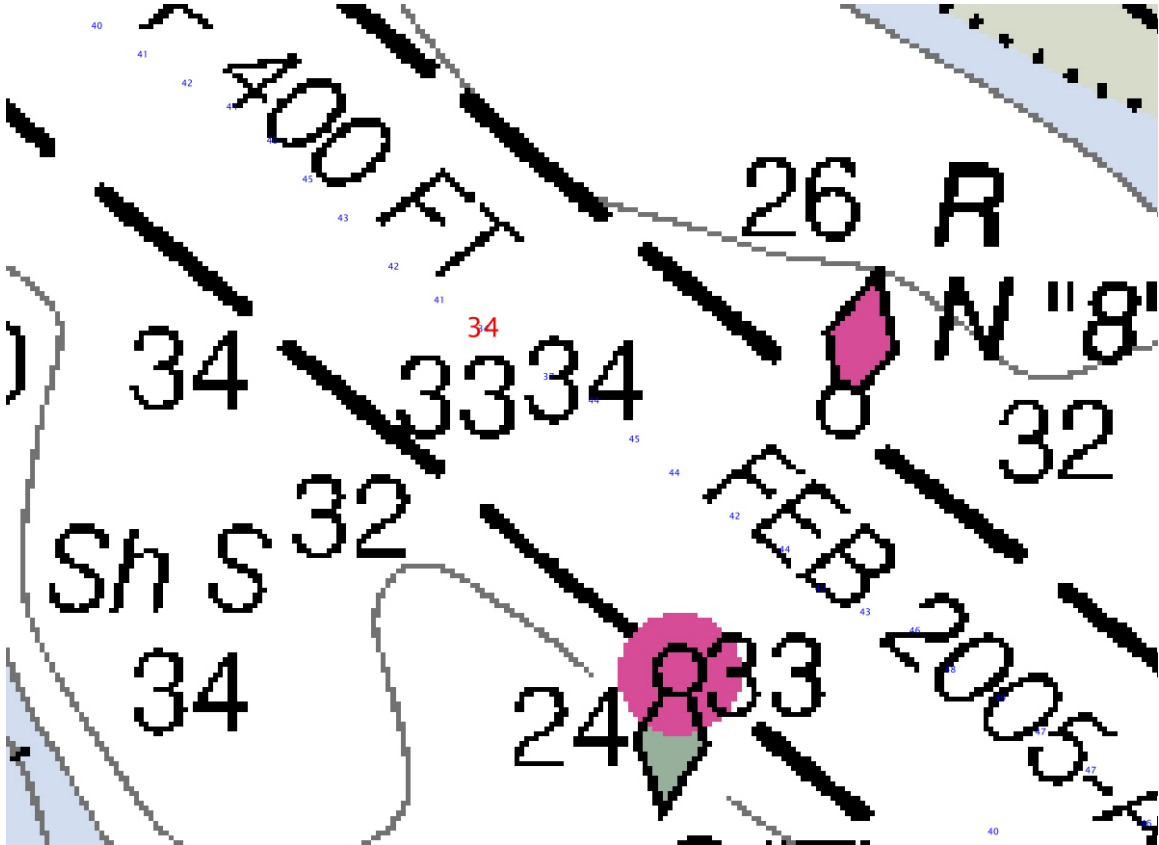
Katrina Wyllie

<b>F00553_DTON_Report.pdf</b>	<b>Content-Type:</b> application/pdf <b>Content-Encoding:</b> base64
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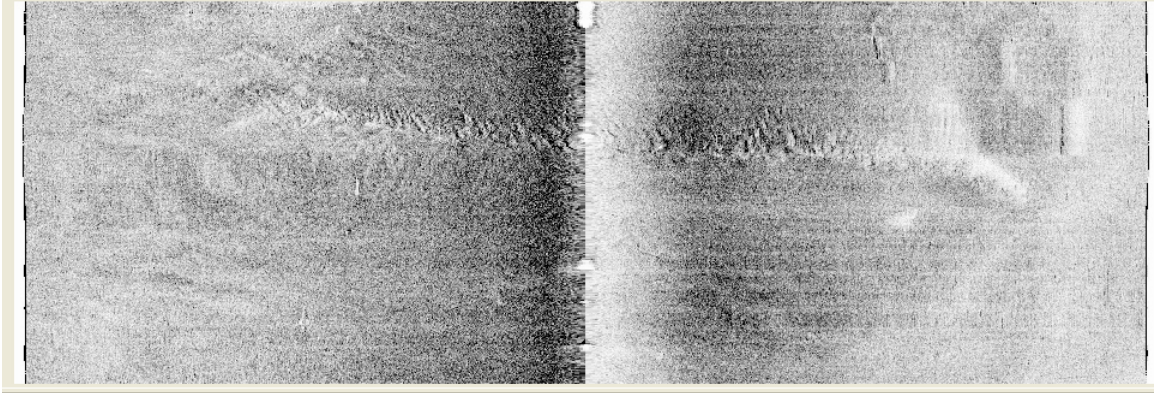
---

<b>F00553.doc</b>	<b>Content-Type:</b> application/msword <b>Content-Encoding:</b> base64
-------------------	--

A 34-ft sounding (43°06'26.0309"N 070°47'37.0259"W) obtained from VBES is within the USACE channel that has a controlling depth of 35-ft. The sounding is located about 50 meters away from charted 33 and 34-ft soundings (also within the channel) and is shown in red in the image. It was not submitted as a DTON due to the location of nearby similar soundings. Side scan sonar showed a natural rise but no noticeable obstruction in the survey position. Recommend informing Army Corps of Engineers of the sounding depth so appropriate action can be taken.







**U.S. ARMY ENGINEER DISTRICT, NEW ENGLAND  
CORPS OF ENGINEERS  
696 Virginia Road  
Concord, Massachusetts 01742-2751**

Jan. 11, 2008

CENAE-EP-DS (11-2-240a)

MEMORANDUM FOR: See Distribution

SUBJECT: Results of Survey

1. In accordance with department regulations there is enclosed a drawing showing results of survey in the following Federal project:

Portsmouth Harbor and Piscataqua, ME and NH

2. Controlling depth information for the above project is shown on the enclosed copy of navigation and chart data.

FOR THE COMMANDER:

STEPHEN A. JOHNSTON  
Chief, Survey Section

2 Enclosures:

1. ENG Form 4020-R
2. Dwg. No. 2644

DISTRIBUTION:

GENERAL

Chief Operations Division, Lyn Preston, Nautical Data Branch/NOAA, N/C26, Station 7350  
1315 East-West Highway, Silver Springs, MD 20910-3282 - 1 copy of drawing, 1 copy of form

USCG Cutter Willow, LT JG Chmielecki - NETC Pier 2 – ATTN: Desiree Atnip, Newport,  
RI 02841 – 1 copy of drawing, 1 copy of form

Capt. E. Howard McVay Jr. - Northeast Marine Pilots Incorporated, 243 Spring Street,  
Newport, RI 02840 – 1 copy of drawing,

  
JOHNSTON  
PROOFREAD

Kevin J. Blount Chief, Waterways Management & Marine Information Section – First Coast  
Guard District 1 (oan) - 408 Atlantic Ave. Boston, MA 02110 – 3350  
1 copy of drawing, 1 copy of form

## MAINE

U.S. Army Corps of Engineers, LeeAnn B. Neal Maine Project Office, 675 Western Ave. # 3  
Manchester, ME 04351

Kevin Rousseau - Federal Consistency/Dredging Coordination – State Planning Office –  
16 State House Station 38 - Augusta. ME 04333-0016

## PORTSMOUTH HARBOR/PISCATAQUA RIVER

Captain Dick Holt, Portsmouth Pilots, P.O. BOX 72, Portsmouth, NH 03802 - 1 copy of  
drawing, 1 copy of form

**REPORT OF CHANNEL CONDITIONS  
400 FEET WIDE OR GREATER  
(ER 1130-2-316)**

PAGE 1 OF 1 PAGES

DATE: January 11, 2008

TO:	FROM: <b>U.S. Army Corps of Engineers New England District 696 Virginia Road Concord, MA. 01742-2751</b>
-----	--

RIVER/HARBOR NAME AND STATE: Portsmouth Hbr. and Piscataqua R., ME. & N.H. Dwg. No. 2644, Sheets 1 of 1, Dated 11, Jan 2008	MINIMUM DEPTHS IN CHANNEL ENTERING FROM SEAWARD
--	--

NAME OF CHANNEL	DATE OF SURVEY	AUTHORIZED PROJECT			LEFT OUTSIDE QUARTER (feet)	MID-CHANNEL		RIGHT OUTSIDE QUARTER (feet)
		WIDTH (feet)	LENGTH Nautical (miles)	MLLW DEPTH (feet)		LEFT INSIDE QUARTER (feet)	RIGHT INSIDE QUARTER (feet)	
<p><b><u>REPORT SURVEY</u></b></p> <p><b><u>35-Foot Main Ship Channel</u></b></p> <p>From about 250' seaward of Buoy RN-8 upstream about 900'</p>	8/07	410 to 400	0.15	35.0	32.8	32.8	34.6	35.0

GENERAL NOTE: The information shown on this sheet(s) represents the results of surveys made on the dates indicated and can only be considered as indicating the general conditions existing at that time.

FOOT NOTES:

**U.S. ARMY ENGINEER DISTRICT, NEW ENGLAND  
CORPS OF ENGINEERS  
696 Virginia Road  
Concord, Massachusetts 01742-2751**

CENAE-EP-DS (11-2-240a)

April 9, 2007

MEMORANDUM FOR: See Distribution

SUBJECT: Results of Survey

1. In accordance with department regulations, there is enclosed a drawing showing results of survey in the following Federal project:

Portsmouth Harbor and Piscataqua River, ME & NH

2. Controlling depth information for the above project is shown on the enclosed copy of navigation and chart data.

FOR THE COMMANDER:

STEPHEN A. JOHNSTON  
Chief, Survey Section

- 2 Enclosures:  
1. ENG Form 4020-R  
2. Dwg. No 2610



JOHNSTON  
PROOFREAD

DISTRIBUTION:

GENERAL

Chief Operations Division, Lyn Preston, Nautical Data Branch/NOAA, N/C26, Station 7350  
1315 East-West Highway, Silver Springs, MD 20910-3282 - 1 copy of drawing, 1 copy of form

USCG District 1(oan), 408 Atlantic Avenue, Boston, MA 02210-3350 - 4 copies of drawing, 4  
copies of form

USCG Cutter Willow, NETC Pier 2 – ATTN: Desiree Atnip, Newport, RI 02841 – 1 copy of  
drawing, 1 copy of form

Kevin J. Blount Chief, Waterways Management & Marine Information Section – First Coast  
Guard District 1 (oan) - 408 Atlantic Ave. Boston, MA 02110 – 3350  
1 copy of drawing, 1 copy of form

## MAINE

U.S. Army Corps of Engineers, LeeAnn B. Neal Maine Project Office, 675 Western Ave. # 3  
Manchester, ME 04351-3526

Mr. Kevin Rousseau - Federal Consistency/Dredging Coordination -16 State Planning Office -  
State House Station 38 - Augusta. ME 04333-0016

## NEW HAMPSHIRE

Director, New Hampshire Port Authority, P.O. BOX 369, Portsmouth, NH 03802  
1 copy of drawing, 1 copy of form

## PORTSMOUTH HARBOR/PISCATAQUA RIVER

Captain Richard Holt Jr, Portsmouth Pilots, P.O. BOX 72, Portsmouth, NH 03802 - 1 copy of  
drawing, 1 copy of form

**REPORT OF CHANNEL CONDITIONS  
400 FEET WIDE OR GREATER  
(ER 1130-2-316)**

PAGE 1 OF 2 PAGES

DATE: April 09, 2007

**TO:** \_\_\_\_\_ **FROM:** U.S. Army Corps of Engineers  
New England District  
696 Virginia Road  
Concord, MA. 01742-2751

**RIVER/HARBOR NAME AND STATE:** Portsmouth Hbr. and Piscataqua R., ME. & N.H.  
**Dwg. No. 2610, Sheet(s) 1-6 of 6, 9 April 2007**

NAME OF CHANNEL	DATE OF SURVEY	AUTHORIZED PROJECT			LEFT OUTSIDE QUARTER (feet)	MID-CHANNEL		RIGHT OUTSIDE QUARTER (feet)
		WIDTH (feet)	LENGTH Nautical (miles)	MLLW DEPTH (feet)		LEFT INSIDE QUARTER (feet)	RIGHT INSIDE QUARTER (feet)	
<b><u>CONDITION SURVEY</u></b>								
<b><u>35-Foot Main Ship Channel</u></b>								
From about 1,400' seaward of FI R-8, upstream 6,940' to Buoy FI GC-11	2/05	400 to 900	1.14	35.0	35.0	35.0	35.0	(1) 34.8
Thence upstream 3,060' to downstream face of Highway U.S. 1 Bridge	2/05	220 to 770	0.50	35.0	26.1	34.3	34.8	35.0
Thence upstream 3,690' to downstream face of Highway U.S. 1 By-Pass Bridge	2/05	250 to 1,000 to 250	0.61	35.0	(2) 35.0	35.0	35.0	(3) 35.0
Thence upstream 7,960' to beginning of 35-foot Turning Basin (about 1,320' upstream of FI R-4)	2/05	220 to 700	1.31	35.0	(4) 33.1	33.7	35.0	(5) 35.0
<b><u>35-Foot Turning Basin</u></b>								
Thence upstream 1,510' to end of 35-foot Turning Basin	2/05	500 to 950 to 650	0.25	35.0	(6) 31.0	35.0	35.0	35.0
<b><u>35-Foot Main Ship Channel</u></b>								
Thence upstream 7,780' to 35-foot Turning Basin (about 270' upstream of Buoy GC-11)	2/05	620 to 400	1.25	35.0	(7) 35.0	35.0	35.0	(8) 35.0

**GENERAL NOTE:** The information shown on this sheet(s) represents the results of surveys made on the dates indicated and can only be considered as indicating the general conditions existing at that time.

**FOOT NOTES:**

- (1). Isolated shoal located about 300' upstream of FI R-10, 35.0' available elsewhere.
- (2). Except for shoaling to 31.9' located within 20' of south channel limit about 20' seaward of Buoy RN-14.
- (3). Isolated shoal of 34.3' is located within a 100' radius of Buoy RN-14 and within 30' of north channel limit; 35.0' available elsewhere.
- (4). Shoaling located from upstream face of U.S. Highway No. 1 bridge to about 600' upstream; 35.0' available elsewhere.
- (5). Except for isolated shoaling to 30.8' from approximately 1,440' to 2,540' seaward of FI R-4.
- (6). Shoaling within 70' of south Turning Basin limit; 35.0' available elsewhere.
- (7). Except for shoaling to 33.2' within 20' of south channel limit.
- (8). Except for shoaling to 31.7' from about 560' to 700' seaward of Buoy FI RN-10.

**REPORT OF CHANNEL CONDITIONS  
400 FEET WIDE OR GREATER  
(ER 1130-2-316)**

DATE: April 09, 2007

TO:	FROM: U.S. Army Corps of Engineers New England District 696 Virginia Road Concord, MA. 01742-2751
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RIVER/HARBOR NAME AND STATE: Portsmouth Hbr. and Piscataqua R., ME. & N.H. Dwg. No. 2610, Sheet(s) 1-6 of 6, 9 April 2007	MINIMUM DEPTHS IN CHANNEL ENTERING FROM SEAWARD
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NAME OF CHANNEL	DATE OF SURVEY	AUTHORIZED PROJECT			LEFT OUTSIDE QUARTER (feet)	MID-CHANNEL		RIGHT OUTSIDE QUARTER (feet)
		WIDTH (feet)	LENGTH Nautical (miles)	MLLW DEPTH (feet)		LEFT INSIDE QUARTER (feet)	RIGHT INSIDE QUARTER (feet)	
<p><b><u>CONDITION SURVEY</u></b></p> <p><b><u>35-Foot Turning Basin</u></b></p> <p>Thence upstream 1,550' to end of Federal Navigation project (about 50' seaward of Buoy RN-12)</p>	2/05	400 to 800	0.26	35.0	34.4	34.9	35.0	35.0

**GENERAL NOTE:** The information shown on this sheet(s) represents the results of surveys made on the dates indicated and can only be considered as indicating the general conditions existing at that time.

**FOOT NOTES:**



This Document is for Office Process use only and is intended to supplement, not supersede or replace, information/recommendations in the Descriptive or Evaluation Reports

## AHB COMPILATION LOG

<b>General Survey Information</b>	
REGISTRY No.	<i>F00553</i>
PROJECT No.	<i>OPR-A321-NRT5-08</i>
FIELD UNIT	<i>NRT 5</i>
DATE OF SURVEY	<i>20080521-20080529</i>
LARGEST SCALE CHART	<i>13283_2, edition 20, 20071001, 1:10,000</i>
ADDITIONAL CHARTS	<i>13283_1, edition 20, 20071001, 1:20,000</i>
	<i>13285, edition 11, 20080701, 1:20,000</i>
SOUNDING UNITS	<i>feet</i>
COMPILER	<i>Katrina Wyllie</i>

<b>Source Grids</b>	<b>File Name</b>
	H:\Compilation\F00553_A321-NRT5\AHB_F00553\E-SAR Final Products\GRIDS
	<i>F00553_MBES_BASE_50cm_Final.hns</i>
	<i>F00553_VBES_BASE_2m_Final.hns</i>
	<i>F00553_2m_VB_extracted.hns</i>
<b>Surfaces</b>	<b>File Name</b>
	H:\Compilation\F00553_A321-NRT5\AHB_F00553\COMPILE\Working
<i>Combined</i>	<i>F00553_2m_Combined.csar</i>
<i>Interpolated TIN</i>	<i>\Interpolated TIN\F00553_2m_InterpTIN.hns</i>
<i>Shifted Interpolated TIN</i>	<i>\Shifted Surface\F00553_2m_InterpTIN_Shifted.hns</i>
<b>Final HOBs</b>	<b>File Name</b>
	H:\Compilation\F00553_A321-NRT5\AHB_F00553\COMPILE\Final_Hobs
<i>Survey Scale Soundings</i>	<i>F00553_SS_Soundings.hob</i>
<i>Chart Scale Soundings</i>	<i>F00553_CS_Soundings.hob</i>
<i>Contour Layer</i>	<i>F00553_Contours.hob</i>
<i>Feature Layer</i>	<i>F00553_Features.hob</i>
<i>Meta-Objects Layer</i>	<i>F00553_MetaObjects.hob</i>
<i>Blue Notes</i>	<i>F00553_BlueNotes.hob</i>

<b>Meta-Objects Attribution</b>	
<b>Acronym</b>	<b>Value</b>
<b>M_COVR</b>	
CATCOV	<i>coverage available</i>
SORDAT	<i>20080529</i>
SORIND	<i>US,US,survy,F00553</i>
<b>M_QUAL</b>	
CATZOC	<i>zone of confidence U (data not assessed)</i>
INFORM	<i>F00553,OPR-A321-NRT5-08</i>
POSACC	<i>10</i>
SORDAT	<i>20080529</i>
SORIND	<i>US,US,survy,F00553</i>
SUREND	<i>20080529</i>
SURSTA	<i>20080521</i>
<b>DEPARE</b>	
DRVALV 1	<i>-0.7087</i>

[Type text]



**ATLANTIC HYDROGRAPHIC BRANCH  
EVALUATION REPORT to ACCOMPANY  
SURVEY F00553 (2008)**

This Evaluation Report has been written to supplement and/or clarify the original Descriptive Report. Sections in this report refer to the corresponding sections of the Descriptive Report.

**B. DATA ACQUISITION AND PROCESSING**

**B.1 DATA PROCESSING**

The following software was used to process data at the Atlantic Hydrographic Branch:

HSTP PYDRO version 9.4 r2680  
CARIS HIPS/SIPS version 6.1 SP2 HF 1-6  
CARIS Bathy Manager version 2.1 SP1 HF 1-7  
DKART INSPECTOR, version 5.0 Build 732 SP1  
CARIS HOM version 3.3 SP 3  
CARIS S57 Composer version 2.0 HF 1-2

**B.2. QUALITY CONTROL**

**B.2.1. H-Cell**

The AHB source depth grid for the survey's nautical chart update product entailed the field's original 2m VBES to extract and extend the shoal layer. The 2m extracted VBES surface and 0.5m MBES surface were combined at 2 meter resolution. The survey scale soundings were created from the 2m combined surface using the parameter of 1mm radius at the scales of 10,000 and 20,000. The chart scale soundings are a subset of the survey scale soundings and were selected manually with reference to the surface to ensure that the selected soundings portrayed the bathymetry. There are survey scale and chart scale soundings that are outside of the metacover layer but they are still valid and are available for charting as needed. The metaobjects were hand digitized around the areas of the raster chart that are recommended to be updated.

A TIN (Triangulated Irregular Network) surface was created from the survey scale soundings from which an interpolated surface was generated for the purpose of generating depth curves. Depth curves were manually edited and are forwarded to MCD for reference only. The curves were utilized during chart scale sounding selection and quality assurance efforts at AHB. The depth curves are incorporated into the SS H-Cell product as per 2009 H-Cell Specifications.

The pre-compilation products or components (Stand Alone HOB files (SAHOB)) are detailed in the Compile Log attached at the end of this document. The SAHOB files included depth areas (DEPARE), depth contours (DEPCNT), sounding selections (SOUNDG), features (OBSTRN, UWTROC, SBDARE, WRECKS, SLCONS, LIGHTS), Meta objects (M\_COVR, M\_QUAL, M\_CSCL), and cartographic Blue Notes (\$CSYMB).

All of the components with the exception of the sounding selection and depth contours were inserted into one feature layer (including the Bluenotes, as dictated by Hydrographic Technical Directive 2008-8 and HSD's H-Cell Specifications 2009). The SAHOB H-Cell layer was exported to S-57 format for H-Cell deliverable. H11821 H-Cell chart scale selected soundings were selected based upon the scale of the applicable chart. The meta object (M\_CSCL layer) contains soundings selected based upon the applicable chart scales of 1:20,000. The H-Cell's SS deliverable includes survey scale sounding selections and depth contours.

Both S-57 files were converted in CARIS HOM for output of H-Cell in chart units (feet). The final deliverables are two S-57 files; one that contains the chart soundings, all the features, Meta objects, and Bluenotes (F00553\_CS.000), and one that contains the sounding selections and depth contours (F00553\_SS.000). Quality assurance checks were made utilizing CARIS S-57 Composer version 2.0 validation checks and DKART INSPECTOR, version 5.0, tests.

Chart compilation was performed by Atlantic Hydrographic Branch personnel in Norfolk, Virginia. Compilation data will be forwarded to Marine Chart Division, Silver Spring, Maryland.

F00553 CARIS H-Cell final deliverables include the following products:

F00553_CS.000	1:10,000 Scale	F00553 H-Cell (Chart Scale)
F00553_SS.000	1:10,000 Scale	F00553 Selected Soundings (Survey Scale)

### **C. VERTICAL AND HORIZONTAL CONTROL**

Final vertical correction processing was completed by the field unit/office personnel with no additional correction required by Atlantic Hydrographic Branch. The field unit/office personnel applied verified water levels in conjunction with the preliminary tidal zoning which was accepted and approved by N/OPSI CO-OPS as the final zoning for F00553. Sounding datum is Mean Lower Low Water (MLLW). Vertical datum is Mean High Water (MHW)

Horizontal control used for this survey during data acquisition is based upon the North American Datum of 1983 (NAD83), UTM projection zone 19.

### **D. RESULTS AND RECOMMENDATIONS**

#### **D.1 CHART COMPARISON**

#### **13283 (20th Edition, OCT./07)**

Corrected through NM 04/04/09  
 Corrected through LNM 03/24/2009  
 Scale 1:20,000, inset 1:10,000

#### **13285 (11<sup>th</sup> Edition, JUL./05)**

Corrected through NM 04/04/09  
 Corrected through LNM 09/23/2008  
 Scale 1:20,000

## ENC Comparison

### US5NH01M

Portsmouth to Dover and Exeter  
Edition 9  
Application Date 2008-08-21  
Issue Date 2008-08-21  
Chart 13285

### US5NH02M

Portsmouth Harbor- Cape Neddick Harbor to Isles of  
Shoals  
Edition 8  
Application Date 2008-10-16  
Issue Date 2008-04-02  
Chart 13283

### D.1.1 Hydrography

The charted hydrography originates with prior surveys and requires no further consideration. The hydrographer makes adequate chart comparisons in section “D” and Appendix 1&2 of the Descriptive Report. The following exceptions are noted:

- a. The field unit was directed to obtain bottom samples in the Letter Instructions but did not. Therefore, charted sea bed characteristic (SBDARE) objects within the M\_COVR were retained as charted. The spatial and feature attributes of the SBDARE point features were carried forward from the ENC (US5NM02M).
- b. The hydrographer recommended that the wreck positioned approximately at 43°06'16.0399"N, 070°47'48.8266"W be charted. The AHB compiler concurs that the wreck be charted but as an area feature rather than a point. It is included in the H-Cell as a WRECKS area feature.



- c. The hydrographer mentioned the location of an uncharted pier (43°04'54.9317"N, 070°43'06.5194"W) and recommended it be added to the chart. Chart the observed pier, included in the H-Cell as a SLCONS feature.



### **D.3. MISCELLANEOUS**

Chart compilation was done by Atlantic Hydrographic Branch personnel, in Norfolk, Virginia. Compilation data will be forwarded to Marine Chart Division, Silver Spring, Maryland. See Section D.1. of this report for a list of the Raster Charts and Electronic Navigation Charts (ENC) used for compiling the present survey:

### **D.4. ADEQUACY OF SURVEY**

The present survey is adequate to supersede the charted bathymetry within the common area. Any features not specifically addressed either in the H-Cell BASE Cell File or the Blue Notes should be retained as charted. Refer to the Descriptive Report for further recommendations by the hydrographer.

**APPROVAL SHEET**  
**F00553**

**Initial Approvals:**

The completed survey has been inspected with regard to survey coverage, delineation of depth curves, representation of critical depths, cartographic symbolization, and verification or disproval of charted data. All revisions and additions made to the H-Cell files during survey processing have been entered in the digital data for this survey. The survey records and digital data comply with National Ocean Service and Office of Coast Survey requirements except where noted in the Descriptive Report and the Evaluation Report.

All final products have undergone a comprehensive reviews per the Hydrographic surveys Division Office Processing Manual and are verified to be accurate and complete except where noted.

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**Katrina Wyllie**  
Hydrographic Intern  
Atlantic Hydrographic Branch

I have reviewed the H-Cell files, accompanying data, and reports. This survey and accompanying Marine Chart Division deliverables meet National Ocean Service requirements and standards for products in support of nautical charting except where noted.

Approved: \_\_\_\_\_  
**Shepard Smith**  
Commander, NOAA  
Chief, Atlantic Hydrographic Branch