

H11861

NOAA FORM 76-35A

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

DESCRIPTIVE REPORT

Type of Survey **Hydrographic / SSS**

Registry No. **H11861**

LOCALITY

State **South Carolina**

General Locality **Charleston**

Sub-locality **Charleston Harbor**

2008

CHIEF OF PARTY
David B. Elliott
Navigation Response Team 2

LIBRARY & ARCHIVES

DATE

NOAA FORM 77-28 U.S. DEPARTMENT OF COMMERCE (11-72) NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION <p style="text-align: center;">HYDROGRAPHIC TITLE SHEET</p>	REGISTRY NUMBER: <p style="text-align: center;">H11861</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.	FIELD NUMBER: Sheet "B"
<p>State/Territory: South Carolina</p> <p>General Locality: Charleston</p> <p>Sub-Locality: Charleston Harbor</p> <p>Scale: 1:10,000 Date of Survey: 21 Jul, 2008 to 13 Nov, 2008</p> <p>Instructions Dated: 09 Apr, 2008 Project Number: OPR-G347-NRT2-08</p> <p>Vessel: NOAA Launch 1210</p> <p>Chief of Party: David B. Elliott - Team Leader</p> <p>Surveyed by: David Elliott, Robert Ramsey, (NRT2)</p> <p>Soundings by: ODOM ECHOTRAC CV</p> <p>Graphic record scaled by: DE, RR, Graphic record checked by: DE, RR</p> <p>Protracted by: N/A Automated Plot: N/A</p> <p>Verification by: Atlantic Hydrographic Branch</p> <p>Soundings in: Meters at MLLW</p> <p>Remarks:</p> <p><i>1) All Times are UTC.</i></p> <p><i>2) This is a basic Hydrographic Survey under the Navigable Area Concept.</i></p> <p><i>3) Projection is UTM Zone 17.</i></p> <p><i>Notes in Red, Bold, and Italic were made during office processing.</i></p>	

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DESCRIPTIVE REPORT

to accompany

OPR-G347-NRT2-08

**HYDROGRAPHIC SURVEY
H11861**

Scale of Survey: 1:10,000

Year of Survey: 2008

Navigation Response Team 2 - Launch 1210

David B. Elliott- Team Leader

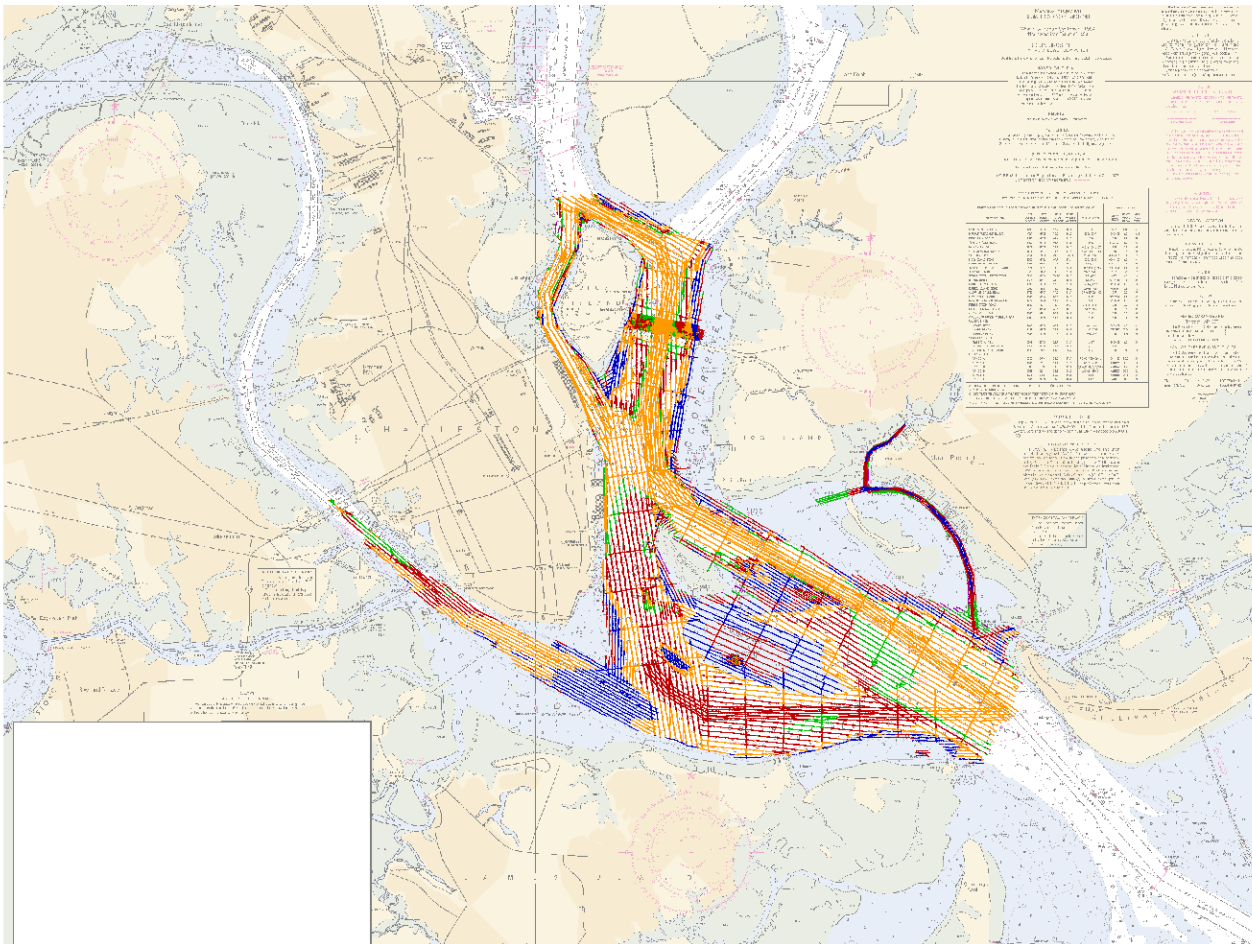
A. AREA SURVEYED

This hydrographic survey was conducted in accordance with Port Letter Instructions for project OPR-G347-NRT2-08, Charleston, South Carolina. The instructions are dated April 9, 2008.

Charleston is the largest city and port in South Carolina and is a rich agricultural area with numerous manufacturing plants surrounding the city. Since Charleston is a busy port, new bathymetry data will be used to update the nautical charts. In addition, the port of Charleston is listed as one of the MTS 175 ports, this area is in need of ENC verification. The Remote Sensing Division, from National Geodetic Survey, has released a Chart Evaluation File (CEF) of the area for Charleston, SC; this CEF will be addressed in survey F-00551. The hydrographic data from this project will help ensure navigational safety through updated critical nautical charts and provide new information for emergency response organizations to use in the event of a marine casualty or coastal storm. *Concur*

Survey Dates: July 21, 2008 (DN: 203) to Nov 13, 2008, 2007 (DN: 318)

Survey limits are displayed graphically in the chartlet on the following page.



OPR-G347-NRT2-08 / H11861 / Sheet "B"

Total of SB & SSS = 283.0 LNM; DEV= 23.0 LNM; Crosslines = 18.0 LNM;
Features = 440; Bottom Samples = 6, Total Sq NM = 5.0

B. DATA ACQUISITION AND PROCESSING *(See also the Evaluation Report)*

B.1. EQUIPMENT

Data was acquired by Navigation Response Team 2 and survey Launch 1210. The vessel was configured as described in the *Data Acquisition and Processing Report (DAPR) for this project. Major data acquisition systems are summarized below.

NOAA launch 1210, a 30-foot SeaArk with a draft of 0.5 meters, was used to collect all survey data. There were no unusual vessel configurations or problems encountered with the vessel.

An ODOM EchotracerCV2, Fathometer, was used to collect all echo soundings on this survey. This echo sounder is a dual frequency instrument but is only used in high frequency with a single transducer.

A Klein 3000 side scan sonar was used throughout this survey. The side scan sonar equipment was used to investigate AWOIS items.

An Applanix POS MV 320 Ver3 (S/N 2546) was used as the primary navigation station and motion sensor on launch 1210 for all hydrographic data acquisition.

A Trimble DGPS Beacon Receiver was used provide RTCM broadcast correctors to the Applanix POS MV system on launch 1210.

The Instrument used for determining corrections for the speed of sound through the water column was an ODOM Digibar Ser # 98295-020606. A Seabird-Seacat Velocity Profiler, model 19-03, Ser# 198671-1477, used for quality control checks. CTD casts are processed in the Velociwin program supplied by the Hydrographic Systems and Technology Program (HSTP).

B.2. QUALITY CONTROL

Following the Field Procedures Manual and the NOS Hydrographic Surveys Specifications and Deliverables Manual, May 2008 has insured the integrity of the survey data for H11861. *Concur*

Differential GPS (DGPS) was used for all hydrographic data acquired on this survey. DGPS performance checks were conducted in accordance with FPM 3.4.4 by comparing the DGPS position of the vessel to a high accuracy calibration point monthly.

Echo Sounder Control

Lead line comparisons were conducted and compared to the digital depth and draft. The leadline log comparisons are in **Appendix V. *Concur*

**Submitted with the H-Cell deliverables*

***Date filed with the original field reports*

H11861 / NRT2

Side Scan Sonar Quality Control

Daily confidence checks were conducted by observing side scan imagery in the vicinity of known contacts, such as buoys or sand waves. Side scan data were considered satisfactory if these contacts could be distinguished throughout the entire range of the side scan trace. The confidence checks were performed daily at 100/500 kHz.

A coverage of 200% was obtained wherever possible in the required survey areas and where water depth and/or hazards permitted. Side scan sonar coverage was conducted to the 12-foot depth curve and single beam reduced line spacing was performed in other areas where warranted. The towfish was deployed off the starboard quarter of the vessel, which proved very stable. Distorted images caused by strong tidal currents, or sea state, were seen periodically. Significant contacts and shadows were processed with Caris HIPS/SIPS to determine the height off the bottom. The significant contacts were then compared by position, as well as common depth and relationship to channels to determine if further investigations were needed. Mosaics were generated for 100% and 200% to insure complete coverage.

The system frequencies used were 100 kHz and 500 kHz. The recorder was set on one of either 25/50/75 meter range scales. There were no water depths greater than 35 meters.

When operating in shoaler waters (e.g. less than 3 meters deep), a short tow was required for the Klein system. When cable-out was approximately 4 meters or less, minor degradation of the side scan imagery occasionally occurred. Day numbers 218, 219, 220 and 301 required some low 100 kHz data usage, due to weak bottom return signals, in the SSW area of South Channel.

The ESAR from H11860 noted special attention to check side scan roll bias to port. There is no apparent misalignment of side scan gear; it is likely that this roll bias was induced by tidal current opposed to line direction. Therefore no adjustments to equipment were made to the towing configuration.

Junctions

This survey junctions with H-11860 (2008) to the southeast, to the northeast H-11862 (2009) and to the northwest H-11863 (2009). The survey from 2008, H-11860 compared favorably to the current survey within one meter. **Concur**

OCS considers a standard junction comparison acceptable if sounding variance is 1 meter or less between the present and junctioning surveys.

B.3. CORRECTIONS TO ECHO SOUNDING

Velocwin SV and cast GP's have been inserted into the final Pydro PSS as suggested in the Field Procedures Manual.

The leadline log comparisons are in Separates II.

There are no deviations to be discussed in this section.

C. VERTICAL AND HORIZONTAL CONTROL

The Instruments used for determining corrections for the speed of sound through the water column were an ODOM Digibar and a Seabird-Seacat Velocity Profiler. SVP casts are downloaded and processed in the Velociwin program supplied by the Hydrographic Systems and Technology Program (HSTP). Corrections were applied to the sounding plot using the Caris HIPS.

Field soundings are corrected by verified tides data from NOAA/CO-OPS, as per

WATER LEVEL INSTRUCTIONS

OPR-G347-NRT2-2008 Charleston, SC

(2/04/2008 MC)

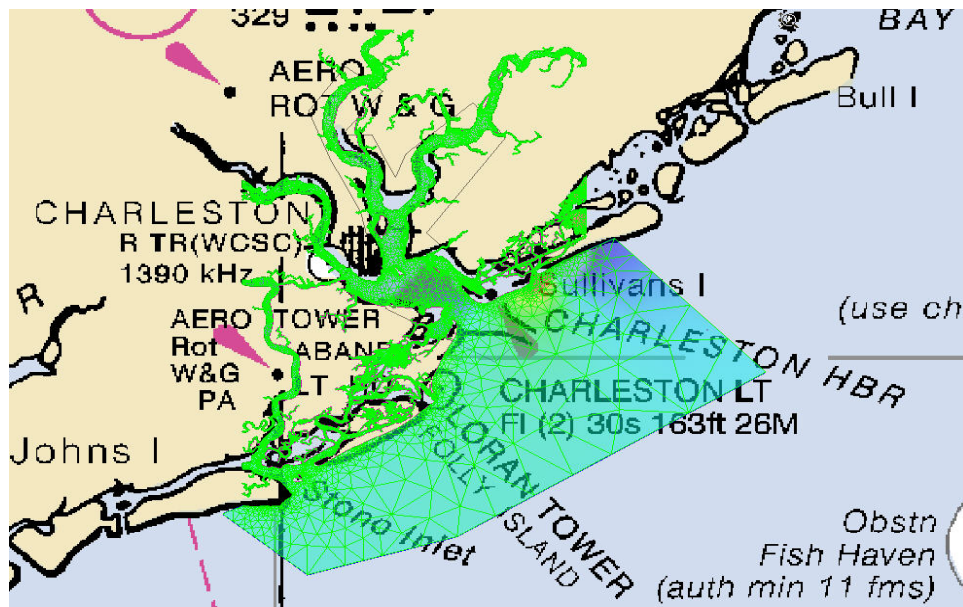
This is a TCARI controlled project.

Pertinent water level data were provided via email data transmissions through TIDEBOT, to the Field unit. Water level data requested and used were both 6 min Preliminary; and Verified for final data submission. Observed tides were used until Verified tide were received, then all data had “Verified” tides applied prior to submission.

The operating water level station at Charleston, SC (8665530) provided water level reducers for this project, during all periods of hydrography.

Tidal Constituent and Residual Interpolation (TCARI) method uses harmonic constituents and residuals from historical and operating water level stations to provide precise water level correction for bathymetric surveys.

For hydrography in the area of Charleston, SC the TCARI grid “G347NRT22008-TCARI.tc” supplied in conjunction with the water level data from Section 1.3.4 to produce a seamless tide correction, was used as the source file. Refer to the TCARI Field SOP for detailed TCARI instructions. A copy of the *.tc file and all *.dat water level files is included with each survey, and can be found in the appropriate survey folder (O:\H11861_Support_Data\OPR-G347-NRT2-08\H11861\Descriptive Report\Appendices\IV. Tide_&_Water_Levels\Request_For_Tides\H11861_Verified.tc). **Concur**



H11861 / NRT2

All elevations and soundings on survey H11861 are based on MLLW unless otherwise specified.

Concur

A Request for Approved Tides letter was sent to <smooth.tides@noaa.gov> on Nov. 19, 2008. This request was generated by PYDRO and can be found in *Appendix IV. The smooth tides were approved on December 2, 2008, and all data for H11861 have had smooth tides applied to the PSS, then final merge was applied. *Concur*

Horizontal Control

The horizontal datum used for this survey is the North American Datum of 1983 (NAD 83), projected using UTM zone 17. The control reference station used for this survey was the USCG DGPS Beacon.

Concur

Horizontal dilution of precision (HDOP) was monitored on Hypack daily on the survey platform. The value never exceeded 2.5 HDOP, and adequate satellite coverage was maintained throughout the survey period. All positioning equipment was operated in a manner consistent with the manufacturers requirements and as described in the **DAPR. There were no equipment malfunctions, which affected the positional quality of the data. *Concur*

D. RESULTS AND RECOMMENDATIONS (see also the Evaluation Report)

D.1 Chart Comparison

There were no shoreline investigations or positions acquired during H11861. Any and all shoreline investigations will be addressed during the CEF survey F00551. *Concur*

There are exceptionally strong tidal currents over three knots noted in the vicinity of the survey region, predominately on the ebb tide. *Concur*

The port of Charleston is a high vessel traffic area. There are areas of wide spread shoaling and they are addressed below in detail. *Concur*

There were five charts listed in the Project Instructions for this survey. However, 11518, and 11524 were used for comparison on this survey due to the proximity of their region related to acquisition. Chart 11521 was not compared due to the scale size in relation to H11861 being surveyed at 1:10,000. *Concur*

**Date filed with the original field reports*

***Submitted with the H-Cell deliverables*

H11861 / NRT2

<u>Chart Number</u>	<u>Edition Date</u>	<u>Scale</u>
11518	35thMay 01, 2006	1:40,000
11521	29thApril 2006	1:80,000
11522	20thFebruary 2008	1:40,000
11523	23rdDecember 2005	1:20,000
11524	51stFebruary 2008	1:20,000
11527	17thMarch 2006	1:20,000

There were five ENC Cells provided however only two were used for comparison on this survey. The remaining cells are not pertinent to the acquired sheet boundaries. **Concur**

The ENC verification will be addressed during the CEF survey F00551 and submitted at a later date. **Concur**

<u>ENC Cell</u>	<u>Edition</u>	<u>Update Application</u>	<u>Issue Date</u>	<u>Corresponding Chart</u>
US5SC13M	10 th	2007-05-15	2008-02-19	11523
US5SC14M	17 th	2008-02-05	2008-02-05	11524

General Agreement with Charted soundings

In general survey soundings compared reasonably well within two to three feet of the charted soundings. All charted soundings should be superseded by this survey. **Concur**

The following is a list of comparisons between the survey data and charted shoals or potentially hazardous features as well as notable sounding discrepancies on the chart:

Detailed point feature information can be found “H11861 Pydro Report” located in *Appendices V.

- 1.) The charted towers centered at 32° 45' 17.8" N, 079° 52' 42.9" W, were disproved by 200% side scan. These features should be removed from the chart. **Concur with clarification. Towers no longer exist on charts.**
- 2.) The 12 foot contour at 32° 45' 47.7" N, 079° 55' 20.0" W, has receded to the northwest approximately 100 meters. **Concur**
- 3.) The currently charted Degaussing Ranges Navy platforms do not exist. These features were investigated with 200% side scan. There are some submerged remains of the eastern two platforms and one has a least depth of thirteen feet at MLLW. The Charleston Pilots Association was consulted on the charting recommendation for these features. The Hydrographer recommends removing the charted Degaussing Ranges Navy & Restricted Area

***Data filed with the original field reports**

notation and platforms D, E, & F. There should be a 13 foot obstruction charted at 32° 46' 28.60"N, 079° 54' 58.41"W. This feature has been submitted as a DTON in advance to MCD. **Concur**

- 4.) The Navy lights associated with the Degaussing Range at: 32° 46' 27.92" N, 079° 55' 21.56" W, and 32° 46' 30.08" N, 079° 55' 02.26" W, and the submerged pile at 32° 46' 30.01" N, 079° 55' 02.80"W do not exist and should also be removed from the chart. **Concur**
- 5.) There is a submerged uncharted rock groin at 32° 45' 47.6" N, 079° 51' 57.5" W, this feature should be added to the chart. The least depth at the off shore end is 26 feet at MLLW. **Concur**
- 6.) The eighteen and twelve foot contours at 32° 46' 58.6" N, 079° 54' 56.9" W, have receded to the south southwest approximately fifty meters. **Concur**
- 7.) The charted bearing region around Shutes Folly Island on the north and eastern side needs to be completely revised to concur with current survey soundings. **Concur**
- 8.) A large area of submerged piles centered at 32° 46' 56.8" N, 079° 54' 29.4" W, should have a more defined obstruction limit associated with their proximity. The currently charted 16 foot obstruction does not adequately delineate this region where numerous submerged piles exist. These features were submitted as DTON's to MCD as advanced information. **Concur with clarification. Additional subm piles were pulled in to supersede the 16-ft Obstrn and better delineate the region.**
- 9.) The six and twelve foot contours at 32° 48' 55.2" N, 079° 55' 46.5" W, need to be adjusted to current survey soundings. **Concur**

The following is a list of comparisons with controlling depths, tabulated depths and reported depths of maintained channels:

Maintained Channel Seaward Least Depths:

Rebellion Reach:	48ft	32°45'36.91" N 079°52'05.87" W
Shutes-Folly Reach:	48ft	32°46'25.75" N 079°53'30.88" W
Horse Reach:	50ft	32°47'00.31" N 079°54'44.88" W
Customhouse Reach:	38ft	32°47'16.17" N 079°55'21.44" W
Hog Island Reach:	41ft	32°47'40.3" N 079°54'58.75" W
Drum Island Reach:	44ft	32°49'05.99" N 079°55'36.32" W
Town Crk Upper Reach:	40ft	32°48'44.4" N 079°55'45.96" W
Town Crk Lower Reach:	42ft	32°48'12.93" N 079°55'48.5" W
South Channel:	25ft	32°45'30.03" N 079°54'33.44" W
Shem Creek	9 ft	32°46'10.93"N 079°52'17.78"W

Charted Depth and Turning Basins:

Town Creek Lower Turning Basin shoal depth was found to be 36 FT
 At 32°47'55.21" N 079°55'33.75" W. *Do not concur. Shoalest depth was found to be 37 FT.*

Charted 41 FT note at 32°47'33.68" N 079°55'15.63" W, was found
 To have depths deeper than 45 FT. *Concur*

Charted “14.5 FT DEC-2001 FEB-2004” at the Ashley River entrance
 Was found to be controlled at 13 FT 32°45'40.27" N 079°55'16.7" W. *Concur*

Charted “23 FT DEC-2001 MAR-2004” at 32°46'36.27" N 079°57'07.82" W
 Was found to be controlled at 24 FT 32°46'27.88" N 079°56'55.74" W. *Concur*

AWOIS Item Investigations

There were 17 AWOIS items within the confines of H11861. Detailed point feature information can be found “H11861 Pydro Report” located in *Appendices V.

<u>AWOIS#</u>	<u>Search</u>	<u>Recommendation</u>
519	Visible	Does not exist, Remove <i>32-47-35.63N, 079-54-32.21W Concur</i>
520	Visible	Exists, Retain as charted <i>32-47-55.73N, 079-54-25.50W Concur</i>
7592	200% SSS	Exists, Retain as charted <i>32-45-59.77N, 079-52-18.15W Concur</i>
7594	200% SSS	Exists, Retain as charted <i>32-45-53.61N, 079-54-18.97W Concur</i>
7602	200% SSS	Exists, Retain as charted <i>32-46-43.86N, 079-55-02.81W Concur</i>
7826	200% SSS	Does not exist, Pier at this location, Remove <i>32-46-54.00N, 079-52-32.70W Concur</i>
10420	200% SSS	Exists, Retain as charted <i>32-45-20.06N, 079-52-29.88W Concur</i>
10421	200% SSS	Exists, Revise to non dangerous wreck <i>32-45-22.2N, 079-53-09.00W Concur with clarification. Modify position.</i>
11058	200% SSS	Exists, Retain as charted <i>32-48-19.60N, 079-55-58.40W Concur</i>
11455	Visible	Remove, New Bridge Abutment at this location <i>32-48-12.60N, 079-55-03.40W Concur</i>

**Data filed with the original field report*

11457	200% SSS	Does not exist, Remove <i>32-46-51.10N, 079-54-13.46W Concur</i>
13791	200% SSS	Does not exist, Remove <i>Concur</i>
13820	200% SSS	Does not exist, Remove <i>Concur</i>
13821	200% SSS	Does not exist, Remove <i>Concur</i>
13822	200% SSS	Exists, Revise position <i>Concur</i>
14195	200% SSS	Exists, Retain as charted with revised depth <i>Concur</i>
14196	200% SSS	Exists, Retain as charted with revised depth <i>Concur with clarification. Survey sounding at 34-ft is insignificant when compared to the surrounding depths. Remove charted Obstrn.</i>

The following is a list of charted features that were investigated on H11861 that contain the label PA, ED, PD or Rep that were not assigned as AWOIS:

- 1.) The eighteen foot Rep 2006 at 32° 46' 11.7" N, 079° 55' 17.3" W, verified existing. *Concur*
- 2.) The thirty foot Rep 2006 at 32° 46' 15.6" N, 079° 55' 04.9" W, verified existing. *Concur*
- 3.) The eighteen foot Rep 2006 at 32° 46' 17.8" N, 079° 55' 21.3" W, verified existing. *Concur*
- 4.) The twenty-eight foot Rep 2006 at 32° 46' 21.2" N, 079° 55' 09.5" W, verified existing. *Concur*
- 5.) The twenty-eight foot Rep 2006 at 32° 46' 31.9" N, 079° 55' 20.6" W, verified existing. *Concur*
- 6.) The Obstruction PA at 32° 47' 13.38" N, 079° 53' 13.5" W, was investigated with 200% side scan sonar and found to be a natural feature, i.e. shoal. The obstruction should be removed and survey soundings should supersede this area. *Concur*
- 7.) The charted marker at 32° 46' 45.6" N, 079° 52' 24.4" W, does not exist. There are multiple piers at this location. *Concur*
- 8.) The seven foot Rep 2007 at ~~32° 46' 14.1" N, 079° 55' 17.5" W~~ *32° 46' 14.050" N, 079° 52' 17.654" W*, verified existing.

Dangers to Navigation

There were 14 DTONS within the confines of H11861. These features were sent in advance to MCD in a zip file via e-mail transmission on Nov. 20, 2008, and Dec. 2, 2008 to mcd.dton@noaa.gov as per FPM 4.4.4.6. Detailed point feature information can be found in the DTON Reports located in *Appendices I, as well as the e-mail receipt of these DTON's, and LNM actions issued. There were no other additional DTON's identified or submitted. *Concur*

D. 2. ADDITIONAL RESULTS

Aids to Navigation and Other Detached Positions

Navigation Aids serve their intended purpose.

There was no ATON Report generated for survey H11861. The assigned ATON Report will be submitted with the CEF survey # F00551. *Concur*

There is a new buoy location for FI R "38" this feature was submitted to MCD and subsequent LNM 48/08 was created by MCD. A copy of this letter is in *Appendices V. *Concur*

The Navy lights associated with the Degaussing Range at: 32° 46' 27.92" N, 079° 55' 21.56" W, and 32° 46' 30.08" N, 079° 55' 02.26" W, should be removed from the chart as discussed in previous section under Chart Comparison. *Concur*

Range "C" approach to ICW, Sullivans Island was noted to not define the deepest water for approach.

NRT2 was advised by the USACE and USCG that "Shutes Folly Reach" inside Charleston Harbor is being renamed to "Bennis Reach". *Concur*

Ferry Routes

There are no Ferry routes within the confines of H11861. *Concur*

Submarine Cables and Pipelines

There are three submerged cable/ pipeline areas on H11861. *Concur*

Bridges

There are four bridges within the confines of H11861. The vertical and horizontal clearances are adequately charted. *Concur*

**Data filed with the original field reports*

Bottom Samples

There were 6 bottom samples taken on H11861. The random samples were in agreement with the chart therefore extensive sampling was not warranted. *Concur*
The Survey feature report can be found in Appendices II.

Historic Wrecks

There were no historic wrecks confirmed by State Archaeologists on H11861. There was one wreck identified by NRT2 and later reviewed by the SHPO and they confirmed it had no historic significance. *Concur*

Special Notes

The PSS contained on the drive with the survey data has had the “Caris line directory” and “images not in line file” redirected to this portable drive. This PSS will open in its entirety with all images directly from the drive. The PSS can be located at:

O:\H11861_Support_Data\OPR-G347-NRT2-08\H11861\PSS

The final PSS submitted on the data drive has been verified free of all outdated and stale data.

The directory tree was changed to isolate raw data as per conversation with Chief of AHB in line with the AHB submission structure.

The MapInfo 9.5 workspace named “H11861 review.wor” can be found at:

O:\H11861_Support_Data\OPR-G347-NRT2-08\H11861\Public_Relations_&_Constituent_Products\Field Products

The Coast Pilot Report was sent to Coast.Pilot@noaa.gov on Dec. 1, 2008 as per FPM 5.2.3.2.5

The survey outlines were sent to survey.outlines@noaa.gov on Nov. 20, 2008 as per FPM 5.2.3.3.3

The raw data directory size report was sent via e-mail to hydro.info@noaa.gov and copied to the Chief of the Atlantic Hydrographic Branch on Nov. 19, 2008 as per FPM 5.2.3.3.6.

The Letter Transmitting data was sent via e-mail to LTDSUBMISSION.AHB@noaa.gov on Dec. 10, 2008 as per FPM 5.2.5

E. APPROVAL SHEET

OPR-G347-NRT2-08

Charleston, SC

Survey Registry No. H11861

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

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

Submitted by:

**David B. Elliott - Team Leader
Navigation Response Team 2**

H11861_DtoN_Report

Registry Number: H-11861
State: South Carolina
Locality: Charleston Harbor
Sub-locality: Charleston Harbor
Project Number: OPR-G347-NRT2-08
Survey Dates: 10/27/2008 - 11/13/2008

Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
11524	51st	02/01/2008	1:20,000 (11524_1)	USCG LNM: 02/12/2008 (06/03/2008) NGA NTM: 09/18/1999 (06/07/2008)
11523	23rd	12/01/2005	1:20,000 (11523_1)	[L]NTM: ?
11518	35th	05/01/2006	1:40,000 (11518_2)	[L]NTM: ?
11522	20th	04/01/2006	1:40,000 (11522_1)	[L]NTM: ?
11521	28th	02/01/2006	1:80,000 (11521_1)	[L]NTM: ?
11520	42nd	09/01/2005	1:432,720 (11520_1)	[L]NTM: ?
11480	39th	09/01/2005	1:449,659 (11480_1)	[L]NTM: ?
11009	37th	07/01/2004	1:1,200,000 (11009_1)	[L]NTM: ?
411	51st	12/01/2006	1:2,160,000 (411_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	Awois#13822 - subm pile FOUL AREA I	Pile	5.31 m	32° 46' 56.3" N	079° 54' 29.1" W	---
1.2	Awois#13822 - subm pile FOUL AREA II	Pile	5.29 m	32° 46' 56.3" N	079° 54' 28.6" W	---
1.3	Awois#13822 - subm pile FOUL AREA III	Pile	5.19 m	32° 46' 56.4" N	079° 54' 27.7" W	13822
1.4	Awois#13822 - subm pile FOUL AREA IV	Pile	5.22 m	32° 46' 56.4" N	079° 54' 28.0" W	---

1.5	Sign_Subm. Pipeline crossing I	Marker (privately maintained)	-3.92 m	32° 46' 17.3" N	079° 52' 32.7" W	---
1.6	Sign_Subm. Pipeline crossing II	Marker (privately maintained)	-3.91 m	32° 46' 16.8" N	079° 52' 32.0" W	---
1.7	Sign_Subm. Pipeline crossing III	Marker (privately maintained)	-3.88 m	32° 46' 24.8" N	079° 52' 22.8" W	---
1.8	Sign_Subm. Pipeline crossing IV	Marker (privately maintained)	-3.87 m	32° 46' 29.7" N	079° 52' 16.3" W	---
1.9	Obstrn 16-ft - Retain	Obstruction	4.90 m	32° 47' 53.0" N	079° 55' 15.6" W	---
1.10	Obstrn 17-ft - Retain	Obstruction	5.21 m	32° 48' 28.2" N	079° 55' 07.4" W	---
1.11	Shoal 13-ft - Remove	Shoal	4.05 m	32° 45' 40.3" N	079° 55' 16.7" W	---
1.12	Obstrn 12-ft - Retain	Obstruction	3.83 m	32° 47' 56.9" N	079° 55' 19.6" W	---

1 - DR_DToN

1.1) Awois#13822 - subm pile FOUL AREA I

DANGER TO NAVIGATION

Survey Summary

Survey Position: 32° 46' 56.3" N, 079° 54' 29.1" W
Least Depth: 5.31 m (= 17.42 ft = 2.903 fm = 2 fm 5.42 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.965 m ; TVU (TPEv) ± 0.132 m
Timestamp: 2008-301.17:08:23.875 (10/27/2008)
Survey Line: my documents / nrt2_1210_sb / 2008-301 / 010_1707
Profile/Beam: 983/1
Charts Affected: 11524_1, 11518_2, 11521_1, 11520_1, 11009_1, 411_1

Remarks:

Offshore most subm pile associated with Awois#13822.

Feature Correlation

Address	Feature	Range	Azimuth	Status
my documents/nrt2_1210_sb/2008-301/010_1707	983/1	0.00	000.0	Primary
my documents/nrt2_1210_klein3000hf_100sss/2008-211/sss080729170100	0002	2.52	071.8	Secondary
my documents/nrt2_1210_klein3000hf_100sss/2008-211/sss080729170100	0004	17.96	021.6	Secondary

Hydrographer Recommendations

Chart subm pile, and accompany foul limit area depicted.

Cartographically-Rounded Depth (Affected Charts):

17ft (11524_1, 11518_2, 11521_1)

2 $\frac{3}{4}$ fm (11520_1, 11009_1, 411_1)

S-57 Data

Geo object 1: Pile (PILPNT)

Office Notes

Concur

Feature Images

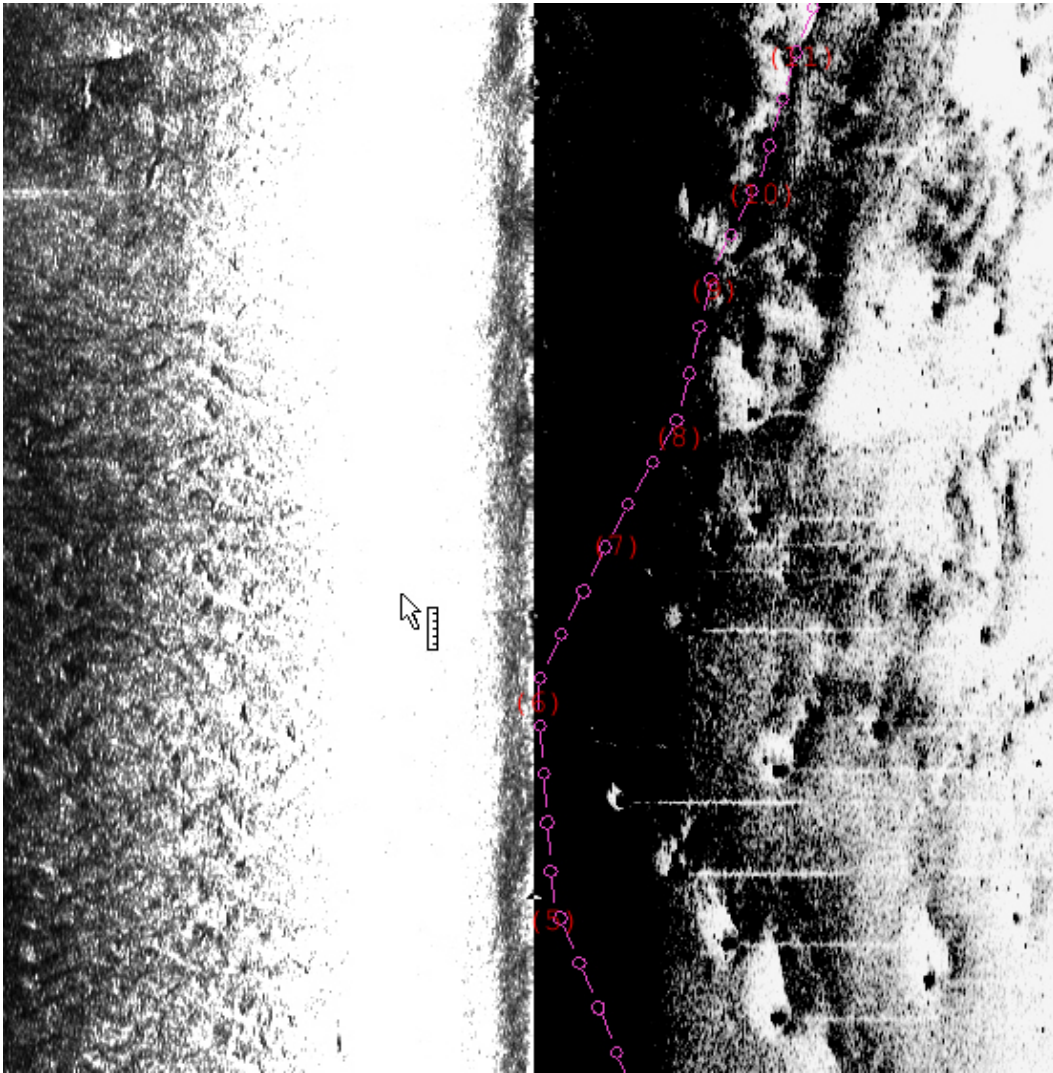


Figure 1.1.1

1.2) Awois#13822 - subm pile FOUL AREA II

DANGER TO NAVIGATION

Survey Summary

Survey Position: 32° 46' 56.3" N, 079° 54' 28.6" W
Least Depth: 5.29 m (= 17.35 ft = 2.892 fm = 2 fm 5.35 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** ± 1.965 m ; **TVU (TPEv)** ± 0.132 m
Timestamp: 2008-301.17:08:18.179 (10/27/2008)
Survey Line: my documents / nrt2_1210_sb / 2008-301 / 010_1707
Profile/Beam: 872/1
Charts Affected: 11524_1, 11518_2, 11521_1, 11520_1, 11009_1, 411_1

Remarks:

[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
my documents/nrt2_1210_sb/2008-301/010_1707	872/1	0.00	000.0	Primary

Hydrographer Recommendations

Chart subm pile, and accompany foul limit area depicted.

Cartographically-Rounded Depth (Affected Charts):

17ft (11524_1, 11518_2, 11521_1)

2 $\frac{3}{4}$ fm (11520_1, 11009_1, 411_1)

S-57 Data

Geo object 1: Pile (PILPNT)

Office Notes

Concur

Feature Images

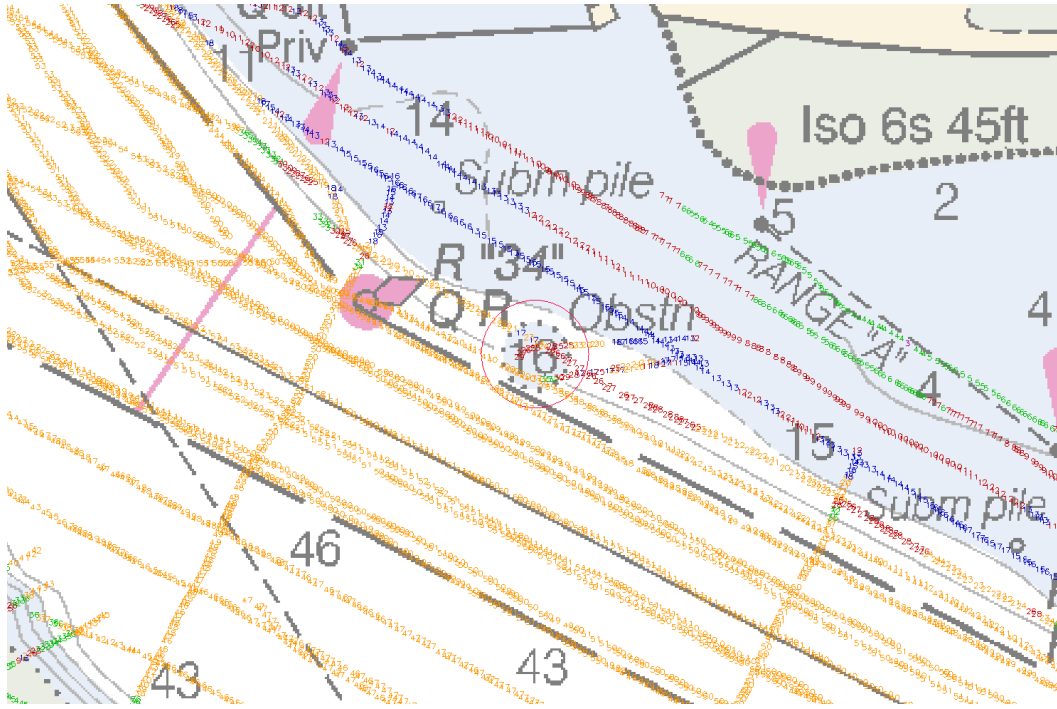


Figure 1.2.1

1.3) Awois#13822 - subm pile FOUL AREA III

DANGER TO NAVIGATION

Primary Feature for AWOIS Item #13822

Search Position: 32° 46' 56.9" N, 079° 54' 30.7" W
Historical Depth: 5.00 m
Search Radius: 50
Search Technique: [None]
Technique Notes: [None]

History Notes:

S00006/02 -- S-G605-WH-02 (HLS); ■Survey Position: 032° 46' 56.876" N, 79° 54' 30.709" W ■Least Depth: 5.00 m ■Timestamp: 2002-316.20:24:55.434 (11/12/2002) ■One of ~12 1- to 2.5-meter high piles; ~160 meters from charted submerged pile; area covered with 200% SSS and partial MB. ■UPDATED 9/27/2006 JCM

Survey Summary

Survey Position: 32° 46' 56.4" N, 079° 54' 27.7" W
Least Depth: 5.19 m (= 17.03 ft = 2.838 fm = 2 fm 5.03 ft)
TPU (±1.96σ): THU (TPEh) ±1.964 m ; TVU (TPEv) ±0.132 m
Timestamp: 2008-301.17:05:08.804 (10/27/2008)
Survey Line: my documents / nrt2_1210_sb / 2008-301 / 014_1704
Profile/Beam: 679/1
Charts Affected: 11524_1, 11518_2, 11521_1, 11520_1, 11009_1, 411_1

Remarks:

[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
my documents/nrt2_1210_sb/2008-301/014_1704	679/1	0.00	000.0	Primary

AWOIS	AWOIS # 13822	80.69	100.7	Secondary (grouped)
-------	---------------	-------	-------	---------------------

Hydrographer Recommendations

Chart subm pile, and accompany foul limit area depicted.

Cartographically-Rounded Depth (Affected Charts):

17ft (11524_1, 11518_2, 11521_1)

2 ¾fm (11520_1, 11009_1, 411_1)

S-57 Data

Geo object 1: Pile (PILPNT)

Office Notes

Concur

1.4) Awois#13822 - subm pile FOUL AREA IV

DANGER TO NAVIGATION

Survey Summary

Survey Position: 32° 46' 56.4" N, 079° 54' 28.0" W
Least Depth: 5.22 m (= 17.13 ft = 2.854 fm = 2 fm 5.13 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** ± 1.964 m ; **TVU (TPEv)** ± 0.132 m
Timestamp: 2008-301.17:05:13.550 (10/27/2008)
Survey Line: my documents / nrt2_1210_sb / 2008-301 / 014_1704
Profile/Beam: 772/1
Charts Affected: 11524_1, 11518_2, 11521_1, 11520_1, 11009_1, 411_1

Remarks:

[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
my documents/nrt2_1210_sb/2008-301/014_1704	772/1	0.00	000.0	Primary

Hydrographer Recommendations

Chart subm pile, and accompany foul limit area depicted.

Cartographically-Rounded Depth (Affected Charts):

17ft (11524_1, 11518_2, 11521_1)

2 ¾fm (11520_1, 11009_1, 411_1)

S-57 Data

Geo object 1: Pile (PILPNT)

Office Notes

Concur

1.5) Sign_Subm. Pipeline crossing I

DANGER TO NAVIGATION

Survey Summary

Survey Position: 32° 46' 17.3" N, 079° 52' 32.7" W
Least Depth: -3.92 m (= -12.86 ft = -2.143 fm = -2 fm 0.86 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** ± 1.962 m ; **TVU (TPEv)** ± 0.131 m
Timestamp: 2008-318.17:59:48.000 (11/13/2008)
DP Dataset: my documents / nrt2_1210_dpnonechosounder / 2008-318 / h11861 dp bss
Profile/Beam: 7/1
Charts Affected: 11523_1, 11524_1, 11518_2, 11521_1, 11520_1, 11009_1, 411_1

Remarks:

Uncharted Subm Pipeline Crossing Sign.

Feature Correlation

Address	Feature	Range	Azimuth	Status
my documents/nrt2_1210_dpnonechosounder/2008-318/h11861 dp bss	7/1	0.00	000.0	Primary

Hydrographer Recommendations

Chart cable crossing sign.

Cartographically-Rounded Depth (Affected Charts):

-13ft (11523_1, 11524_1, 11518_2, 11521_1)

-2fm (11520_1, 11009_1, 411_1)

S-57 Data

Geo object 1: Beacon, special purpose/general (BCNSPP)

Attributes: BCNSHP - 5:pile beacon
CATSPM - 39:pipline mark
COLOUR - 1,11:white,orange
COLPAT - 4:squared
CONRAD - 1:radar conspicuous
HEIGHT - 4 m
VERDAT - 12:Mean lower low water

Office Notes

QUA: GPSmode=4, SVs=9, HDOP=2.93

1.6) Sign_Subm. Pipeline crossing II

DANGER TO NAVIGATION

Survey Summary

Survey Position: 32° 46' 16.8" N, 079° 52' 32.0" W
Least Depth: -3.91 m (= -12.82 ft = -2.137 fm = -2 fm 0.82 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** ± 1.962 m ; **TVU (TPEv)** ± 0.131 m
Timestamp: 2008-318.18:01:53.000 (11/13/2008)
DP Dataset: my documents / nrt2_1210_dpnonechosounder / 2008-318 / h11861 dp bss
Profile/Beam: 8/1
Charts Affected: 11523_1, 11524_1, 11518_2, 11521_1, 11520_1, 11009_1, 411_1

Remarks:

Uncharted Subm Pipeline Crossing Sign.

Feature Correlation

Address	Feature	Range	Azimuth	Status
my documents/nrt2_1210_dpnonechosounder/2008-318/h11861 dp bss	8/1	0.00	000.0	Primary

Hydrographer Recommendations

Chart cable crossing sign.

Cartographically-Rounded Depth (Affected Charts):

-13ft (11523_1, 11524_1, 11518_2, 11521_1)

-2fm (11520_1, 11009_1, 411_1)

S-57 Data

Geo object 1: Beacon, special purpose/general (BCNSPP)

Attributes: BCNSHP - 5:pile beacon
CATSPM - 39,40,41:pipline mark,anchorage mark,clearing mark
COLOUR - 1,11:white,orange
COLPAT - 4:squared
CONRAD - 1:radar conspicuous
HEIGHT - 4 m
INFORM - pipeline crossing
VERDAT - 12:Mean lower low water

Office Notes

QUA: GPSmode=4, SVs=8, HDOP=3.09

Feature Images

[Image file h:/compilation/h11861_g347-nrt2/ahb_h11861/pss/my documents/nrt2_1210_dpnonechosounder/2008-318/h11861 dp bss/8_1_sc.png does not exist.]

1.7) Sign_Subm. Pipeline crossing III

DANGER TO NAVIGATION

Survey Summary

Survey Position: 32° 46' 24.8" N, 079° 52' 22.8" W
Least Depth: -3.88 m (= -12.74 ft = -2.124 fm = -2 fm 0.74 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** ± 1.962 m ; **TVU (TPEv)** ± 0.131 m
Timestamp: 2008-318.18:07:00.000 (11/13/2008)
DP Dataset: my documents / nrt2_1210_dpnonechosounder / 2008-318 / h11861 dp bss
Profile/Beam: 9/1
Charts Affected: 11523_1, 11524_1, 11518_2, 11521_1, 11520_1, 11009_1, 411_1

Remarks:

Uncharted Subm Pipeline Crossing Sign.

Feature Correlation

Address	Feature	Range	Azimuth	Status
my documents/nrt2_1210_dpnonechosounder/2008-318/h11861 dp bss	9/1	0.00	000.0	Primary

Hydrographer Recommendations

Chart cable crossing sign.

Cartographically-Rounded Depth (Affected Charts):

-13ft (11523_1, 11524_1, 11518_2, 11521_1)

-2fm (11520_1, 11009_1, 411_1)

S-57 Data

Geo object 1: Beacon, special purpose/general (BCNSPP)

Attributes: BCNSHP - 5:pile beacon
CATSPM - 39:pipeline mark
COLOUR - 1,11:white,orange
COLPAT - 4:squared
CONRAD - 1:radar conspicuous
HEIGHT - 4 m
INFORM - pipeline crossing
VERDAT - 24:Local datum

Office Notes

QUA: GPSmode=4, SVs=7, HDOP=3.17

Feature Images

[Image file h:/compilation/h11861_g347-nrt2/ahb_h11861/pss/my documents/nrt2_1210_dpnonechosounder/2008-318/h11861 dp bss/9_1_sc.png does not exist.]

1.8) Sign_Subm. Pipeline crossing IV

DANGER TO NAVIGATION

Survey Summary

Survey Position: 32° 46' 29.7" N, 079° 52' 16.3" W
Least Depth: -3.87 m (= -12.70 ft = -2.117 fm = -2 fm 0.70 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** ± 1.962 m ; **TVU (TPEv)** ± 0.131 m
Timestamp: 2008-318.18:11:05.000 (11/13/2008)
DP Dataset: my documents / nrt2_1210_dpnonechosounder / 2008-318 / h11861 dp bss
Profile/Beam: 10/1
Charts Affected: 11523_1, 11524_1, 11518_2, 11521_1, 11520_1, 11009_1, 411_1

Remarks:

Uncharted Subm Pipeline Crossing Sign.

Feature Correlation

Address	Feature	Range	Azimuth	Status
my documents/nrt2_1210_dpnonechosounder/2008-318/h11861 dp bss	10/1	0.00	000.0	Primary

Hydrographer Recommendations

Chart cable crossing sign.

Cartographically-Rounded Depth (Affected Charts):

-13ft (11523_1, 11524_1, 11518_2, 11521_1)

-2fm (11520_1, 11009_1, 411_1)

S-57 Data

Geo object 1: Beacon, special purpose/general (BCNSPP)

Attributes: BCNSHP - 5:pile beacon
CATSPM - 39:pipeline mark
COLOUR - 1,11:white,orange
COLPAT - 4:squared
CONRAD - 2:not radar conspicuous
HEIGHT - 4 m
INFORM - pipeline crossing
VERDAT - 12:Mean lower low water

Office Notes

QUA: GPSmode=4, SVs=7, HDOP=3.01

Feature Images

[Image file h:/compilation/h11861_g347-nrt2/ahb_h11861/pss/my documents/nrt2_1210_dpnonechosounder/2008-318/h11861 dp bss/10_1_sc.png does not exist.]

1.9) Obstrn 16-ft - Retain

DANGER TO NAVIGATION

Survey Summary

Survey Position: 32° 47' 53.0" N, 079° 55' 15.6" W
Least Depth: 4.90 m (= 16.07 ft = 2.678 fm = 2 fm 4.07 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** ± 1.965 m ; **TVU (TPEv)** ± 0.132 m
Timestamp: 2008-318.16:07:32.721 (11/13/2008)
Survey Line: my documents / nrt2_1210_sb / 2008-318 / 017_1607
Profile/Beam: 478/1
Charts Affected: 11524_1, 11518_2, 11521_1, 11520_1, 11009_1, 411_1

Remarks:

remains of plat structure.

Feature Correlation

Address	Feature	Range	Azimuth	Status
my documents/nrt2_1210_sb/2008-318/017_1607	478/1	0.00	000.0	Primary
my documents/nrt2_1210_klein3000hf_100sss/2008-259/sss080915145400	0002	1.56	262.8	Secondary
my documents/nrt2_1210_klein3000hf_100sss/2008-302/sss081028144900	0001	4.88	187.2	Secondary

Hydrographer Recommendations

chart subm obstn 16ft LD.

Cartographically-Rounded Depth (Affected Charts):

16ft (11524_1, 11518_2, 11521_1)

2 ½fm (11520_1, 11009_1, 411_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)
Attributes: CATOBS - 7:foul ground
QUASOU - 1:depth known
TECSOU - 1,2:found by echo-sounder,found by side scan sonar
VALSOU - 4.898 m
VERDAT - 12:Mean lower low water
WATLEV - 3:always under water/submerged

Office Notes

Concur

Feature Images

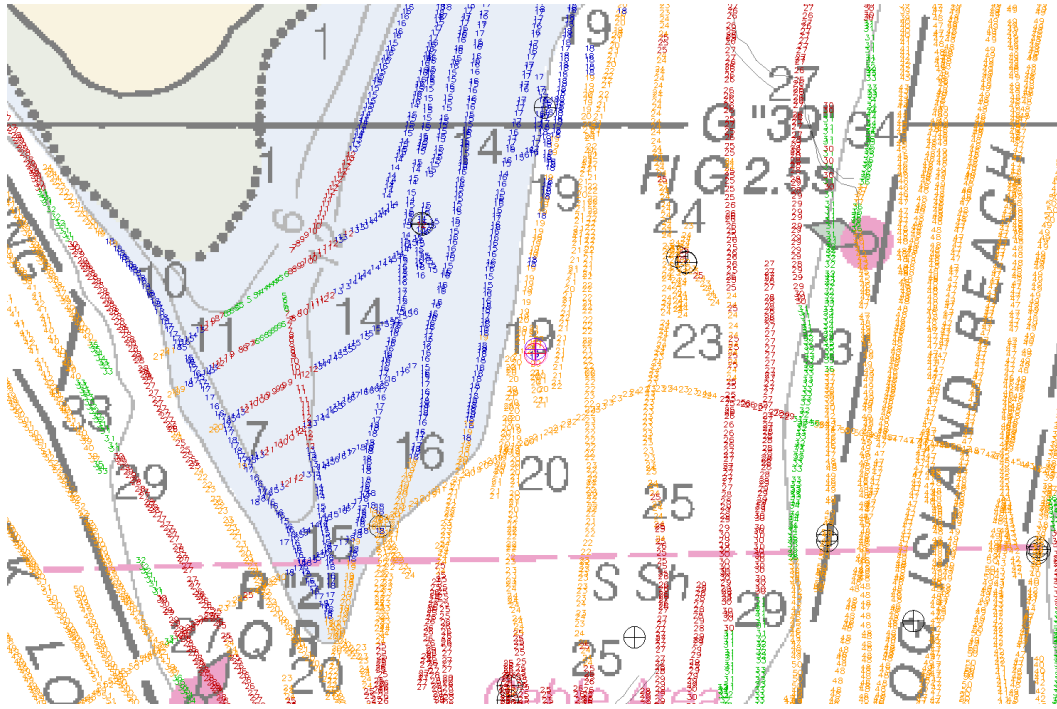


Figure 1.9.1

1.10) Obstrn 17-ft - Retain

DANGER TO NAVIGATION

Survey Summary

Survey Position: 32° 48' 28.2" N, 079° 55' 07.4" W
Least Depth: 5.21 m (= 17.10 ft = 2.849 fm = 2 fm 5.10 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** ± 1.964 m ; **TVU (TPEv)** ± 0.132 m
Timestamp: 2008-318.17:27:47.518 (11/13/2008)
Survey Line: my documents / nrt2_1210_sb / 2008-318 / 010_1727
Profile/Beam: 511/1
Charts Affected: 11524_1, 11521_1, 11520_1, 11009_1, 411_1

Remarks:

remains of old front ranger tower platform.

Feature Correlation

Address	Feature	Range	Azimuth	Status
my documents/nrt2_1210_sb/2008-318/010_1727	511/1	0.00	000.0	Primary
my documents/nrt2_1210_klein3000hf_200sss/2008-259/sss080915172800	0003	1.52	006.0	Secondary

Hydrographer Recommendations

chart 17ft obstn.

Cartographically-Rounded Depth (Affected Charts):

17ft (11524_1, 11521_1)
 2 ¾fm (11520_1, 11009_1, 411_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)
Attributes: CATOBS - 7:foul ground
QUASOU - 1:depth known
TECSOU - 1,2:found by echo-sounder,found by side scan sonar
VALSOU - 5.211 m
VERDAT - 12:Mean lower low water
WATLEV - 3:always under water/submerged

Office Notes

Concur

Feature Images

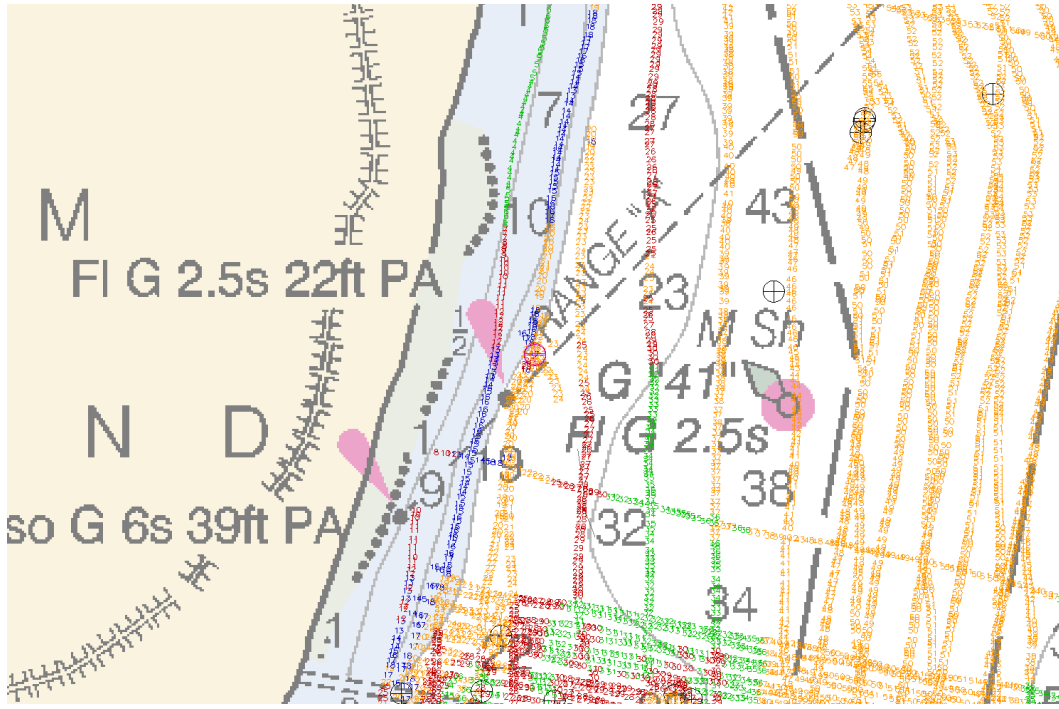


Figure 1.10.1

1.11) Shoal 13-ft - Remove

DANGER TO NAVIGATION

Survey Summary

Survey Position: 32° 45' 40.3" N, 079° 55' 16.7" W
Least Depth: 4.05 m (= 13.30 ft = 2.217 fm = 2 fm 1.30 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** ± 1.962 m ; **TVU (TPEv)** ± 0.131 m
Timestamp: 2008-317.17:17:39.706 (11/12/2008)
Survey Line: my documents / nrt2_1210_sb / 2008-317 / 007_1717
Profile/Beam: 654/1
Charts Affected: 11524_1, 11518_2, 11522_1, 11521_1, 11520_1, 11480_1, 11009_1, 411_1

Remarks:

Due to the shoaler sounding of 13ft in tabulated channel. DTON is warranted.

Feature Correlation

Address	Feature	Range	Azimuth	Status
my documents/nrt2_1210_sb/2008-317/007_1717	654/1	0.00	000.0	Primary
my documents/nrt2_1210_klein3000hf_200sss/2008-276/sss081002164200	0004	8.17	254.2	Secondary

Hydrographer Recommendations

Chart 13 sounding, or change the currently charted 14.5 FT controlling depth notation.

Cartographically-Rounded Depth (Affected Charts):

13ft (11524_1, 11518_2, 11522_1, 11521_1)
 2 ¼fm (11520_1, 11480_1, 11009_1, 411_1)

S-57 Data

Geo object 1: Sounding (SOUNDG)

Office Notes

Do not Concur. 13-ft shoal not visable in Side Scan Editor. Remove charted chart sounding.

Feature Images

[Image file h:/compilation/h11861_g347-nrt2/ahb_h11861/pss/screen grabs/sss081000004_m.tif does not exist.]

[Image file h:/compilation/h11861_g347-nrt2/ahb_h11861/pss/my documents/nrt2_1210_sb/2008-317/007_1717/654_1_sc.png does not exist.]

1.12) Obstrn 12-ft - Retain

DANGER TO NAVIGATION

Survey Summary

Survey Position: 32° 47' 56.9" N, 079° 55' 19.6" W
Least Depth: 3.83 m (= 12.56 ft = 2.094 fm = 2 fm 0.56 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** ± 1.963 m ; **TVU (TPEv)** ± 0.131 m
Timestamp: 2008-318.16:18:08.019 (11/13/2008)
Survey Line: my documents / nrt2_1210_sb / 2008-318 / 023_1617
Profile/Beam: 497/1
Charts Affected: 11524_1, 11518_2, 11521_1, 11520_1, 11009_1, 411_1

Remarks:

plat base structure, or lost associated gear.

Feature Correlation

Address	Feature	Range	Azimuth	Status
my documents/nrt2_1210_sb/2008-318/023_1617	497/1	0.00	000.0	Primary
my documents/nrt2_1210_klein3000hf_100sss/2008-302/sss081028135400	0002	0.89	270.5	Secondary
my documents/nrt2_1210_klein3000hf_200sss/2008-302/sss081028141800	0001	1.51	188.6	Secondary

Hydrographer Recommendations

Chart 12ft obstn

Cartographically-Rounded Depth (Affected Charts):

12ft (11524_1, 11518_2, 11521_1)

2fm (11520_1, 11009_1, 411_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)
Attributes: CATOBS - 6:foul area
QUASOU - 1:depth known
TECSOU - 1,2:found by echo-sounder,found by side scan sonar
VALSOU - 3.829 m
VERDAT - 12:Mean lower low water
WATLEV - 3:always under water/submerged

Office Notes

Concur

Feature Images

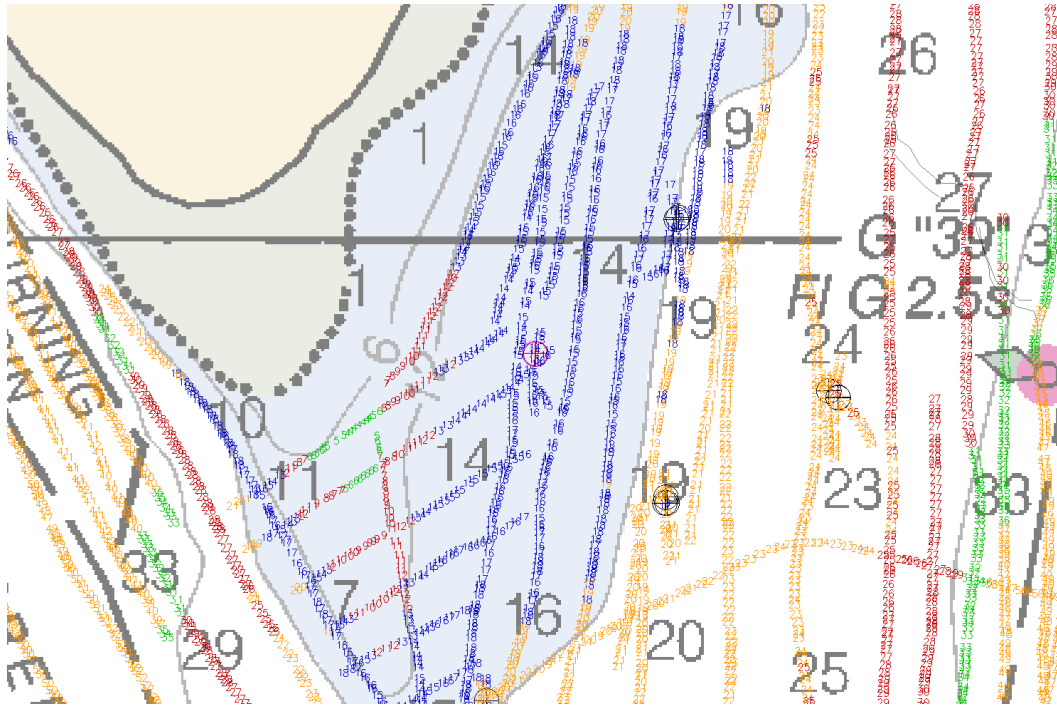


Figure 1.12.1

H11861_Features_Report

Registry Number: H-11861
State: South Carolina
Locality: Charleston Harbor
Sub-locality: Charleston Harbor
Project Number: OPR-G347-NRT2-08
Survey Dates: 07/29/2008 - 11/13/2008

Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
11524	51st	02/01/2008	1:20,000 (11524_1)	USCG LNM: 02/12/2008 (06/03/2008) NGA NTM: 09/18/1999 (06/07/2008)
11523	23rd	12/01/2005	1:20,000 (11523_1)	[L]NTM: ?
11518	35th	05/01/2006	1:40,000 (11518_4) 1:40,000 (11518_2)	[L]NTM: ?
11522	20th	04/01/2006	1:40,000 (11522_1)	[L]NTM: ?
11521	28th	02/01/2006	1:80,000 (11521_1)	[L]NTM: ?
11520	42nd	09/01/2005	1:432,720 (11520_1)	[L]NTM: ?
11480	39th	09/01/2005	1:449,659 (11480_1)	[L]NTM: ?
11009	37th	07/01/2004	1:1,200,000 (11009_1)	[L]NTM: ?
411	51st	12/01/2006	1:2,160,000 (411_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	Awois# 11058 - Retain	Wreck	[None]	32° 48' 19.6" N	079° 55' 58.0" W	11058
1.2	Awois #7594 - Modify	Obstruction	0.00 m	32° 45' 54.2" N	079° 54' 18.5" W	7594
1.3	Awois#10420 - Retain	Obstruction	3.64 m	32° 45' 20.1" N	079° 52' 29.9" W	10420

1.4	Awois#13791 - Remove	Obstruction	10.71 m	32° 45' 55.8" N	079° 52' 56.2" W	13791
1.5	Awois#7592 - Retain	Wreck	8.06 m	32° 45' 59.7" N	079° 52' 18.1" W	7592
1.6	289/1 LD=26ft @ mllw offshore end subm groin	Obstruction	8.01 m	32° 45' 47.8" N	079° 51' 57.6" W	---
1.7	883/1 LD= 17ft @ mllw subm pile Foul AREA Awois#13822	Shoal	5.16 m	32° 46' 57.5" N	079° 54' 31.2" W	---
1.8	936/1 LD= 17ft @ mllw subm pile FOUL AREA Awois#13822	Shoal	5.17 m	32° 46' 57.3" N	079° 54' 30.8" W	---
1.9	Awois#10421 - Modify	Wreck	4.06 m	32° 45' 21.4" N	079° 53' 11.4" W	10421
1.10	Awois#13820 - Remove	Obstruction	12.27 m	32° 48' 44.4" N	079° 55' 46.0" W	13820
1.11	Awois#7502 - Retain	Obstruction	2.41 m	32° 46' 44.2" N	079° 55' 02.9" W	7602
1.12	Awois#14195 - Remove	Obstruction	7.92 m	32° 45' 41.1" N	079° 53' 12.8" W	14195
1.13	Awois#14196 - Remove	Obstruction	10.52 m	32° 48' 40.4" N	079° 54' 43.1" W	14196
1.14	Obstrn 19-ft	Obstruction	5.97 m	32° 46' 14.1" N	079° 54' 47.0" W	---
1.15	Subm Obstrn 13-ft	Obstruction	4.12 m	32° 46' 28.6" N	079° 54' 58.4" W	---
1.16	Obstrn 14-ft	Obstruction	4.42 m	32° 47' 42.7" N	079° 54' 46.5" W	---
1.17	Buoy - FL R 38	Shoal	11.38 m	32° 47' 47.2" N	079° 54' 57.6" W	---
1.18	Charted - Obstrn PA	AWOIS	[no data]	[no data]	[no data]	---
1.19	AWOIS - Retain	AWOIS	[no data]	[no data]	[no data]	---

1 - Tree

1.1) Awois# 11058 - Retain

Primary Feature for AWOIS Item #11058

Search Position: 32° 48' 19.6" N, 079° 55' 58.4" W
Historical Depth: [None]
Search Radius: 50
Search Technique: S2,VS,DI,SD, ES
Technique Notes: [None]

History Notes:

S00006/02 -- S-G605-WH-02 (HLS); ■Survey Position: 032° 46' 56.876" N, 79° 54' 30.709" W ■Least Depth: 5.00 m ■Timestamp: 2002-316.20:24:55.434 (11/12/2002) ■One of ~12 1- to 2.5-meter high piles; ~160 meters from charted submerged pile; area covered with 200% SSS and partial MB. ■UPDATED 9/27/2006 JCM ■OPR-G347-NRT2-08 // H-11861,2008: 200% sss coverage showed large foul area with many piles. Most seaward piles were extracted from sounding data for DTON's, as the currently charted depiction does not exhibit proper limits of concern. Due to the close proximity of these features to the channel, it is felt that a foul limit line would best serve to cover these features. ■Recommend charting foul limit line, as depicted by surveyed data sss line feature.RWR

Survey Summary

Survey Position: 32° 48' 19.6" N, 079° 55' 58.0" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2008-267.04:32:27 (09/23/2008)
Survey Line: my documents / nrt2_1210_klein3000hf_100sss / 2008-260 / sss080916164100
Contact/Point: 0001/1
Charts Affected: 11524_1, 11521_1, 11520_1, 11009_1, 411_1

Remarks:

Awois # 11058 subm wrk barge. Exist as charted.

Feature Correlation

Address	Feature	Range	Azimuth	Status
my documents/nrt2_1210_klein3000hf_100sss/2008-260/sss080916164100	0001	0.00	000.0	Primary
AWOIS	AWOIS # 11058	10.33	097.6	Secondary

Hydrographer Recommendations

Retain.

S-57 Data

Geo object 1: Wreck (WRECKS)
Attributes: CATWRK - 2:dangerous wreck
 CONVIS - 2:not visual conspicuous
 INFORM - Awois# 11058
 TECSOU - 2:found by side scan sonar
 WATLEV - 3:always under water/submerged

Office Notes

Concur.

1.2) Awois #7594 - Modify

Primary Feature for AWOIS Item #7594

Search Position: 32° 45' 53.6" N, 079° 54' 19.0" W
Historical Depth: 0.49 m
Search Radius: 0
Search Technique: S2, VS,DI,ES
Technique Notes: [None]

History Notes:

AWOIS ITEM 7594■■HISTORY■ CL668/83 -- COAST PILOT REPORT; USCG SHIP RAMBLER REPORTS i■NUMEROUS ROCKS VISIBLE AT LOW TIDE IN POS. LAT.32-45-53N, LONG. i■79-54-18W. DANGER MARKED BY A WHITE AND ORANGE DAYBEACON. i■(ENTERED 12/89 MCR)■ H10784/98--OPR-G301-AHP; ITEM FOUND AS SUBMERGED ROCKS IN LAT.32/45/53.61N, LONG.079/54/18.97W (NAD83). A LEAST DEPTH OF 1.6 FEET AT MLLW WAS FOUND. AREA CONSIDERED AS A FOUL AREA - AWASH. (UPDATED 4/99 BY MBH)■■H-11861,2008 confirmed existance of 1ft sounding. Area marked by Danger Beacon.■■Recommend Retain as charted.RWR

Survey Summary

Survey Position: 32° 45' 54.2" N, 079° 54' 18.5" W
Least Depth: 0.00 m (= 0.00 ft = 0.000 fm = 0 fm 0.00 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.961 m ; TVU (TPEv) ± 0.130 m
Timestamp: 2008-304.15:03:43.692 (10/30/2008)
Survey Line: my documents / nrt2_1210_sb / 2008-304 / 085_1503
Profile/Beam: 672/1
Charts Affected: 11524_1, 11518_2, 11522_1, 11521_1, 11520_1, 11480_1, 11009_1, 411_1

Remarks:

VBES development confirmed 0ft sounding peak inside of collapsed hole.

Feature Correlation

Address	Feature	Range	Azimuth	Status
my documents/nrt2_1210_sb/2008-304/085_1503	672/1	0.00	000.0	Primary
AWOIS	AWOIS # 7594	22.34	029.9	Secondary

Hydrographer Recommendations

Retain charted add baring shoal.

Cartographically-Rounded Depth (Affected Charts):

0ft (11524_1, 11518_2, 11522_1, 11521_1)

0fm (11520_1, 11480_1, 11009_1, 411_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: VALSOU - 0.000 m

Office Notes

Concur.

Feature Images

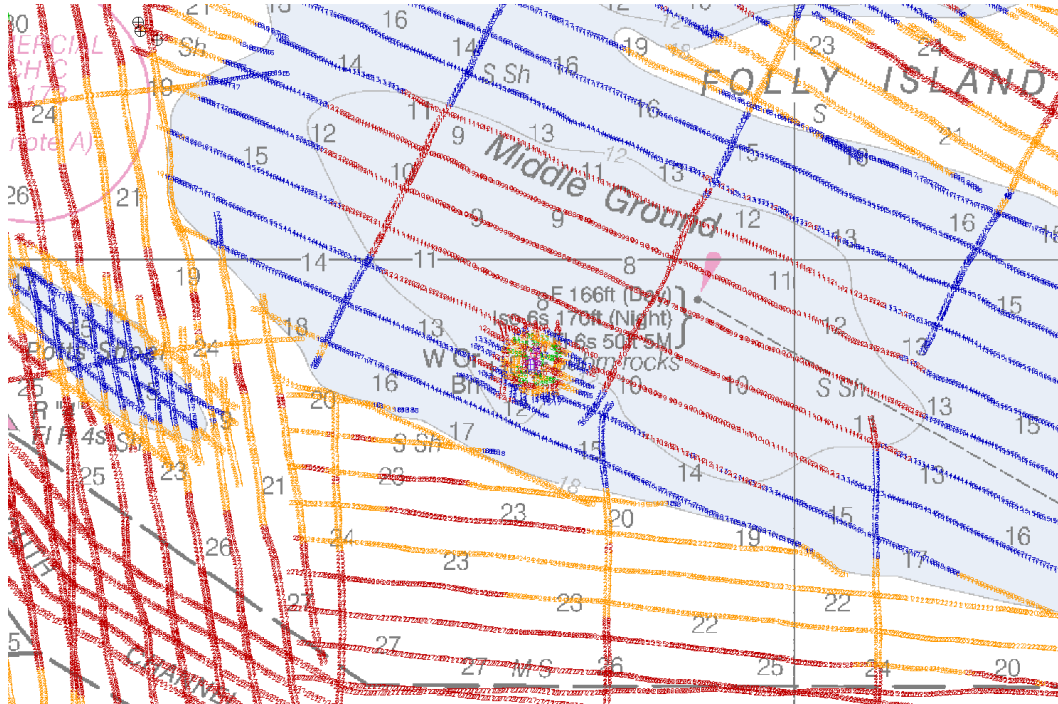


Figure 1.2.1

1.3) Awois#10420 - Retain

Primary Feature for AWOIS Item #10420

Search Position: 32° 45' 20.1" N, 079° 52' 29.9" W
Historical Depth: 3.05 m
Search Radius: 50
Search Technique: S2, ES
Technique Notes: [None]

History Notes:

HISTORY ■ H-10722/97--OPR-G301-AHP; A SUBMERGED PIPE WITH A LEAST DEPTH OF 10 FT MLLW WAS LOCATED. UPDATED 8/99 MCR ■■■ OPR-G347-NRT2-08 // H-11861,2008: Near nadir sounding on a vertical pipe identified during previous diving operation conducted by this unit on late 1990's surveys. Due to the disposition of the angular position of this feature a shoal sounding is difficult to obtain. It is felt that the 10ft sounding should be retained as it was acquired during dive operations. ■■■ Recommend Retaining 10ft dangerous obstn.RWR

Survey Summary

Survey Position: 32° 45' 20.1" N, 079° 52' 29.9" W
Least Depth: 3.64 m (= 11.94 ft = 1.990 fm = 1 fm 5.94 ft)
TPU ($\pm 1.96\sigma$): THU (TPE_h) ± 1.963 m ; TVU (TPE_v) ± 0.131 m
Timestamp: 2008-301.16:03:58.240 (10/27/2008)
Survey Line: my documents / nrt2_1210_sb / 2008-301 / 010_1603
Profile/Beam: 654/1
Charts Affected: 11523_1, 11524_1, 11518_2, 11518_4, 11521_1, 11520_1, 11480_1, 11009_1, 411_1

Remarks:

Near nadir sounding on a vertical pipe identified during previous diving operation conducted by this unit on late 1990's surveys. Due to the disposition of the angular position of this feature a shoal sounding is difficult to obtain. It is felt that the 10ft sounding should be retained as it was acquired during dive operations.

Feature Correlation

Address	Feature	Range	Azimuth	Status
my documents/nrt2_1210_sb/2008-301/010_1603	654/1	0.00	000.0	Primary
AWOIS	AWOIS # 10420	1.33	318.7	Secondary
my documents/nrt2_1210_klein3000hf_100sss/2008-301/sss081027133700	0001	2.35	156.0	Secondary
my documents/nrt2_1210_klein3000hf_200sss/2008-301/sss081027131800	0001	3.49	324.5	Secondary
my documents/nrt2_1210_klein3000hf_100sss/2008-206/sss080724155300	0003	4.25	297.5	Secondary

Hydrographer Recommendations

Retain dangerous 10ft sounding on obstrn.

Cartographically-Rounded Depth (Affected Charts):

12ft (11523_1, 11524_1, 11518_2, 11518_4, 11521_1)

2fm (11520_1, 11480_1, 11009_1, 411_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)
Attributes: CATOBS - 6:foul area
 NATCON - 7:metal
 QUASOU - 1:depth known
 TECSOU - 1,2:found by echo-sounder,found by side scan sonar
 VALSOU - 3.640 m
 VERDAT - 12:Mean lower low water
 WATLEV - 3:always under water/submerged

Office Notes

Concur

Feature Images

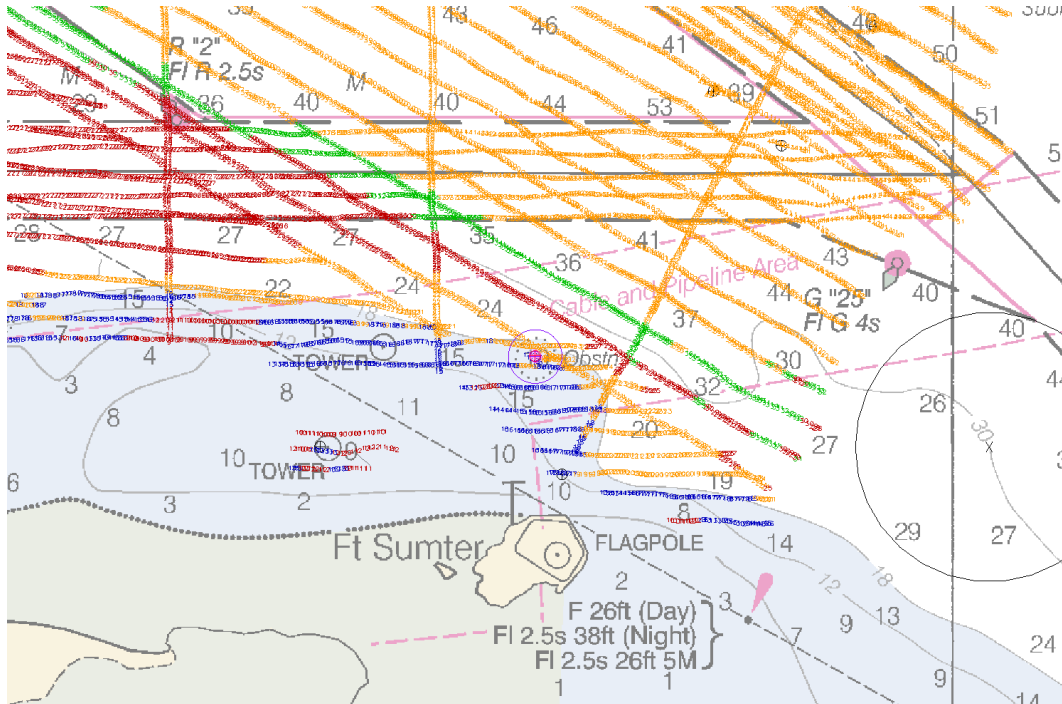


Figure 1.3.1

1.4) Awois#13791 - Remove

Primary Feature for AWOIS Item #13791

Search Position: 32° 45' 55.8" N, 079° 52' 56.1" W
Historical Depth: 10.44 m
Search Radius: 50
Search Technique: [None]
Technique Notes: [None]

History Notes:

S00006/02 -- S-G605-WH-02 HLS; ■Survey Position: 032° 45' 55.822" N, 79° 52' 56.114" W ■Least Depth: 10.44 m ■Timestamp: 2002-317.15:33:09.001 (11/13/2002) ■Remarks: Least depth of 34 feet over feature located with 200% SSS and developed with 100% MB. Feature is ~165 meters ■west of AWOIS item #11450. No contact was found at the position of AWOIS item #11450. ■Office Notes: Add a 34 ft obstruction (34 Obstn) and danger curvein Latitude 32°45'55.82"N, Longitude 079°52'56.11"W. ■Updated 9/19/2006 JCM

Survey Summary

Survey Position: 32° 45' 55.8" N, 079° 52' 56.2" W
Least Depth: 10.71 m (= 35.14 ft = 5.857 fm = 5 fm 5.14 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.974 m ; TVU (TPEv) ± 0.148 m
Timestamp: 2008-211.15:21:06.257 (07/29/2008)
Survey Line: my documents / nrt2_1210_sb / 2008-211 / 012_1512
Profile/Beam: 6962/1
Charts Affected: 11523_1, 11524_1, 11518_2, 11522_1, 11521_1, 11520_1, 11480_1, 11009_1, 411_1

Remarks:

OPR-G347-NRT2-08 // H11861,2008: 200% sss revealed no contact of this feature, Awois#13791. This Awois#11450 item was originally located by this unit, and positioned during diving operations, during late 1990's (H-10744). It was noted that the obstn had been re charted in a new location. There were two small contacts located 60-70 meters from the original position during this survey, however the height off bottom, and location along channel edge, does not warrant charting.

Feature Correlation

Address	Feature	Range	Azimuth	Status
my documents/nrt2_1210_sb/2008-211/012_1512	6962/1	0.00	000.0	Primary
AWOIS	AWOIS # 13791	2.78	257.8	Secondary
my documents/nrt2_1210_klein3000hf_100sss/2008-206/sss080724141300	0001	232.60	271.6	Secondary (grouped)
my documents/nrt2_1210_klein3000hf_200sss/2008-211/sss080729144400	0002	232.73	270.4	Secondary (grouped)

Hydrographer Recommendations

Remove the charted Obstn and add soundings.

Cartographically-Rounded Depth (Affected Charts):

35ft (11523_1, 11524_1, 11518_2, 11522_1, 11521_1)

5 ¾fm (11520_1, 11480_1, 11009_1, 411_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: VALSOU - 10.712 m

Office Notes

Concur. Remove from charts.

Feature Images

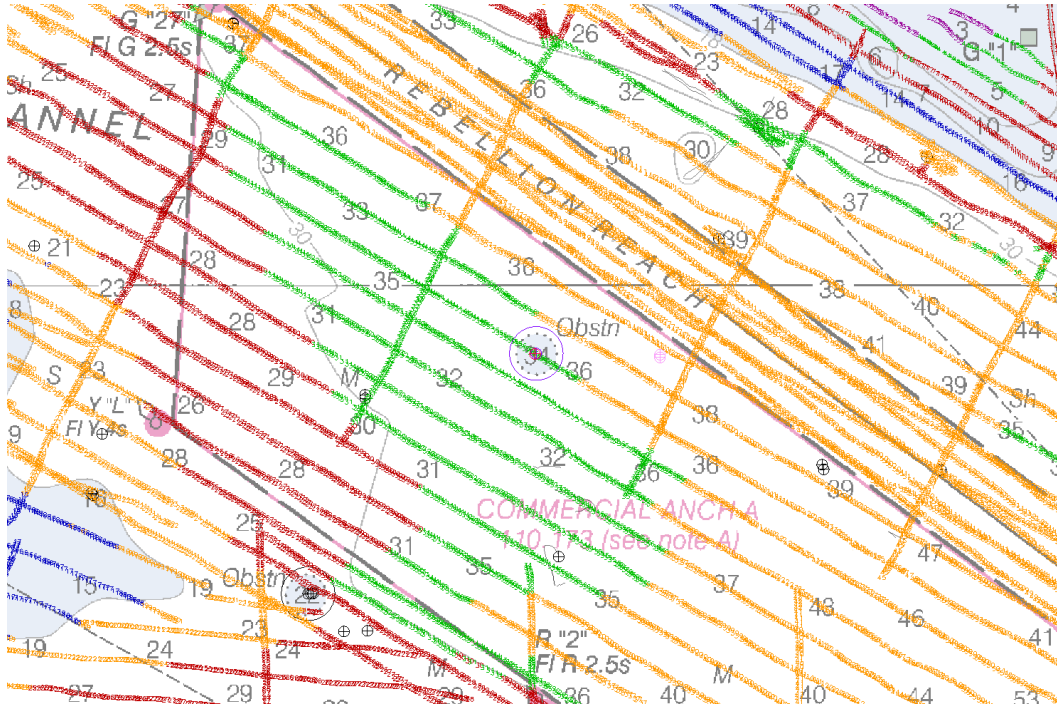


Figure 1.4.1

1.5) Awois#7592 - Retain

Primary Feature for AWOIS Item #7592

Search Position: 32° 45' 59.4" N, 079° 52' 17.6" W
Historical Depth: 7.62 m
Search Radius: 50
Search Technique: S2,MB
Technique Notes: [None]

History Notes:

CL599/55 -- USGS "SPEEDLETTER"; THE COE ADVISED ON 6/29/55 THAT A RECENT SURVEY LOCATED A WRECK IN 33 FT AT MLW WITH A CLEARANCE OF 25 FT MLW IN POS. LAT.32-45-59N, LONG.79-52-20W. (ENTERED 12/89 MCR)■ NM30/55 -- REFERENCE, TEMPORARY BUOY ESTABLISHED■ H10744/97--OPR-G301-AHP; SUNKEN WRECK FOUND PARTIALLY BURIED IN THE BOTTOM AND LYING ON A NW/SE AXIS. DETACHED POSITIONS AND LEAST DEPTHS WERE TAKEN ON EACH END OF THE WRECK. THEY ARE:■LAT. 32/45/59.77N, LONG. 079/52/18.15W (NAD83), LEAST DEPTH = 24.3 FT. (MLLW)■LAT. 32/45/59.18N, LONG. 079/52/16.90W (NAD83), LEAST DEPTH = 24.9 FT. (MLLW)■THE WRECK IS RECOMMENDED TO BE CHARTED AS A 24 WK IN THE SURVEYED POSITION. (UPDATED 8/98 BY MBH)■ S00006/02 -- S-G605-WH-02 HLS; ■Survey Position: 032° 45' 59.369" N, 79° 52' 17.615" W■Least Depth: 7.76 m■Timestamp: 2002-317.15:40:28.272 (11/13/2002)■Survey Line: g605 / 14mb / 2002-317 / 136_1539■Remarks: Least depth of 25 feet over AWOIS item #7592. AWOIS item #7592 located with 200% SSS and developed with■100% MB.■Updated 9/19/2006 JCM■OPR-G347-NRT2-08 // H-11861,2008: 200% SSS confirmed subm wrk. Least depth was obtained.■Recommend Retain as charted.

Survey Summary

Survey Position: 32° 45' 59.7" N, 079° 52' 18.1" W
Least Depth: 8.06 m (= 26.45 ft = 4.409 fm = 4 fm 2.45 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.971 m ; TVU (TPEv) ± 0.136 m
Timestamp: 2008-301.16:29:02.497 (10/27/2008)
Survey Line: my documents / nrt2_1210_sb / 2008-301 / 002_1628
Profile/Beam: 173/1
Charts Affected: 11523_1, 11524_1, 11518_2, 11518_4, 11521_1, 11520_1, 11480_1, 11009_1, 411_1

Remarks:

200% SSS confirmed subm wrk. Least depth was obtained.

Feature Correlation

Address	Feature	Range	Azimuth	Status
my documents/nrt2_1210_sb/2008-301/002_1628	173/1	0.00	000.0	Primary
my documents/nrt2_1210_klein3000hf_100sss/2008-206/sss080724130700	0002	7.19	093.0	Secondary
AWOIS	AWOIS # 7592	17.01	307.8	Secondary

Hydrographer Recommendations

Retain as charted.

Cartographically-Rounded Depth (Affected Charts):

26ft (11523_1, 11524_1, 11518_2, 11518_4, 11521_1)

4 ¼fm (11520_1, 11480_1, 11009_1, 411_1)

S-57 Data

Geo object 1: Wreck (WRECKS)

Attributes: CATWRK - 2:dangerous wreck

CONVIS - 2:not visual conspicuous

QUASOU - 1:depth known

TECSOU - 1,2:found by echo-sounder,found by side scan sonar

VALSOU - 8.063 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

Concur.

Feature Images

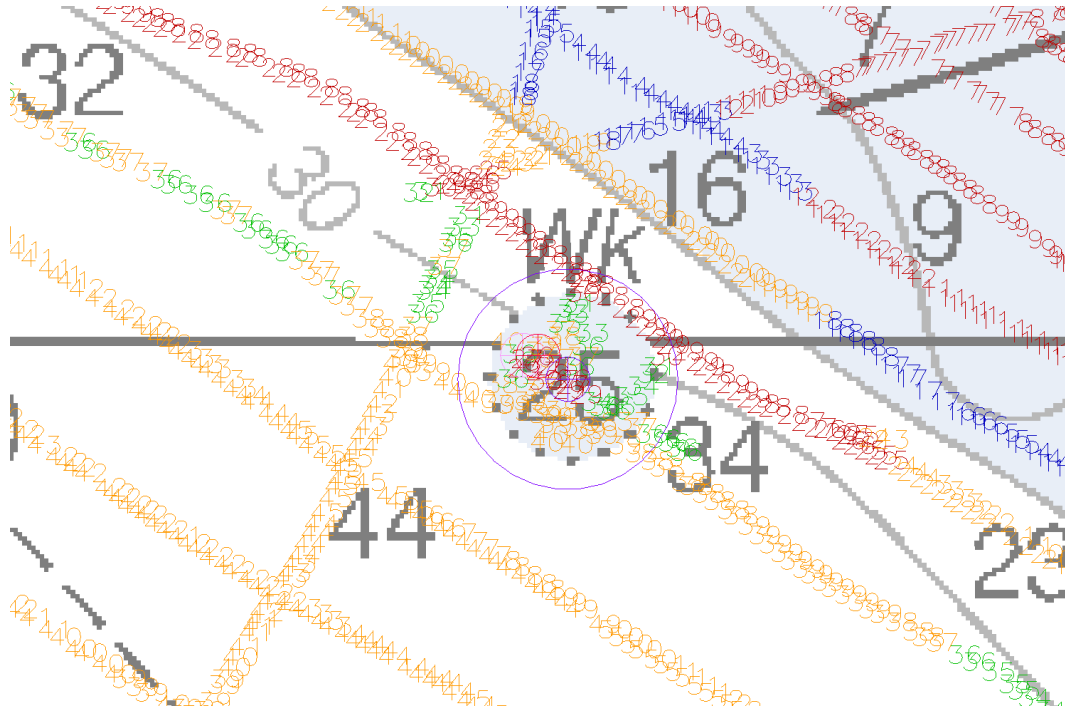


Figure 1.5.1

1.6) 289/1 LD=26ft @ mllw offshore end subm groin

Survey Summary

Survey Position: 32° 45' 47.8" N, 079° 51' 57.6" W
Least Depth: 8.01 m (= 26.28 ft = 4.380 fm = 4 fm 2.28 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** ± 1.969 m ; **TVU (TPEv)** ± 0.136 m
Timestamp: 2008-301.16:24:32.809 (10/27/2008)
Survey Line: my documents / nrt2_1210_sb / 2008-301 / 012_1624
Profile/Beam: 289/1
Charts Affected: 11523_1, 11524_1, 11518_2, 11518_4, 11521_1, 11520_1, 11480_1, 11009_1, 411_1

Remarks:

[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
my documents/nrt2_1210_sb/2008-301/012_1624	289/1	0.00	000.0	Primary
my documents/nrt2_1210_klein3000hf_100sss/2008-206/sss080724130700	0001	5.48	006.7	Secondary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

26ft (11523_1, 11524_1, 11518_2, 11518_4, 11521_1)

4 ¼fm (11520_1, 11480_1, 11009_1, 411_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: CATOBS - 4:crib

QUASOU - 1:depth known

TECSOU - 1,2:found by echo-sounder,found by side scan sonar

VALSOU - 8.011 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

Concur. Add subm rock groin feature.

Feature Images

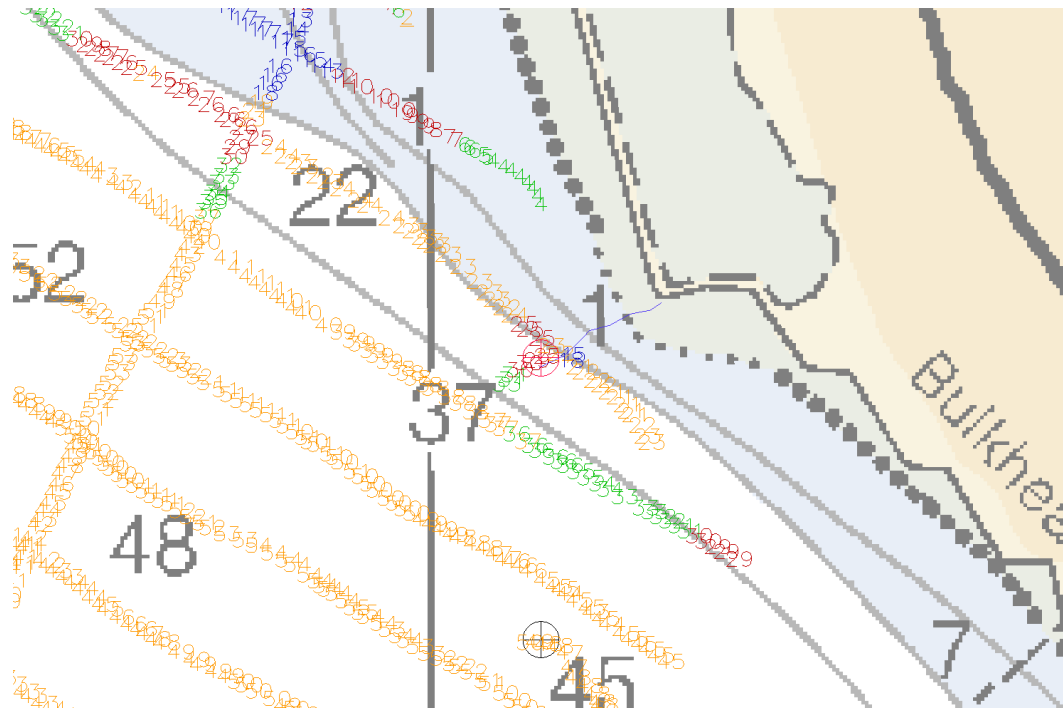


Figure 1.6.1

1.7) 883/1 LD= 17ft @ mllw subm pile Foul AREA Awois#13822

Survey Summary

Survey Position: 32° 46' 57.5" N, 079° 54' 31.2" W
Least Depth: 5.16 m (= 16.93 ft = 2.822 fm = 2 fm 4.93 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.968 m ; TVU (TPEv) ± 0.132 m
Timestamp: 2008-316.15:36:27.584 (11/11/2008)
Survey Line: my documents / nrt2_1210_sb / 2008-316 / 018_1535
Profile/Beam: 883/1
Charts Affected: 11524_1, 11518_2, 11521_1, 11520_1, 11009_1, 411_1

Remarks:

[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
my documents/nrt2_1210_sb/2008-316/018_1535	883/1	0.00	000.0	Primary

Hydrographer Recommendations

Chart Foul Area

Cartographically-Rounded Depth (Affected Charts):

17ft (11524_1, 11518_2, 11521_1)

2 $\frac{3}{4}$ fm (11520_1, 11009_1, 411_1)

S-57 Data

Geo object 1: Pile (PILPNT)

Office Notes

Concur

Feature Images

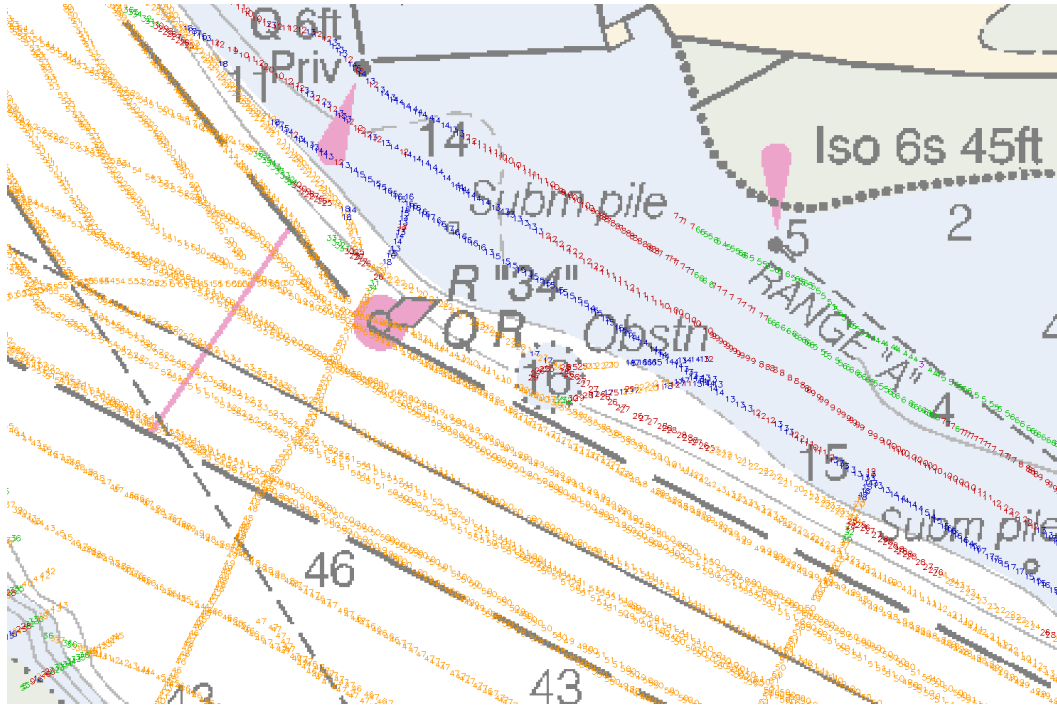


Figure 1.7.1

1.8) 936/1 LD= 17ft @ mllw subm pile FOUL AREA Awois#13822

Survey Summary

Survey Position: 32° 46' 57.3" N, 079° 54' 30.8" W
Least Depth: 5.17 m (= 16.98 ft = 2.830 fm = 2 fm 4.98 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** ± 1.968 m ; **TVU (TPEv)** ± 0.132 m
Timestamp: 2008-316.15:36:30.390 (11/11/2008)
Survey Line: my documents / nrt2_1210_sb / 2008-316 / 018_1535
Profile/Beam: 936/1
Charts Affected: 11524_1, 11518_2, 11521_1, 11520_1, 11009_1, 411_1

Remarks:

Feature Correlation

Address	Feature	Range	Azimuth	Status
my documents/nrt2_1210_sb/2008-316/018_1535	936/1	0.00	000.0	Primary

Hydrographer Recommendations

Chart Foul Area

Cartographically-Rounded Depth (Affected Charts):

17ft (11524_1, 11518_2, 11521_1)

2 $\frac{3}{4}$ fm (11520_1, 11009_1, 411_1)

S-57 Data

Geo object 1: Pile (PILPNT)

Office Notes

Concur

1.9) Awois#10421 - Modify

Primary Feature for AWOIS Item #10421

Search Position: 32° 45' 22.2" N, 079° 53' 09.0" W
Historical Depth: [None]
Search Radius: 150
Search Technique: S2,DLS,ES,SD
Technique Notes: [None]

History Notes:

HISTORY ■ LNM43/96; USCG, 10/22/96; THE 43 FT ERIKA SANK IN POS.32 45 22.2N, 079 53 09W. ENTERED 8/99 MCR ■ H-10744/97--OPR-G301-AHP; ITEM WAS NOT ASSIGNED AND WAS CHARTED SUBSEQUENT TO THIS SURVEY. SOUTHERN LIMIT OF 200% SIDE SCAN SONAR SURVEY CROSSES REPORTED LOCATION OF WRECK WITH NO INDICATION OF THIS WRECK. EVALUATOR RECOMMENDS TO RETAIN AS CHARTED. ENTERED 8/99 MCR ■ H10784/98--OPR-G301-AHP; WRECK CLAIMED COVERED BY 200% SIDE SCAN SONAR BY THE HYDROGRAPHER. BOTH THE HYDROGRAPHER AND THE EVALUATOR RECOMMEND THAT THIS WRECK BE DELETED AND REMOVED FROM THE CHART. ■ F00457/99--OPR-G428-NRT2; WRECK NEITHER VERIFIED NOR DISPROVED BY THIS SURVEY. EVALUATOR DID NOT ACCOMPLISH A COMPARISON WITH PRIOR SURVEY H10784/98 AND THUS RECOMMENDED THAT THE WRECK BE CHARTED. ■ NM25/00 (6/17/00)--DELETES THIS DANGEROUS WRECK (PA). (UPDATED 4/01 BY MBH) ■ ■ OPR-G347-NRT2-08, H11861,2008: 200% sss located small areas of debris was located and developed. The vast majority of wreckage is gone, the remainder is Non-Dangerous in nature. ■ ■ Recommendation: Revise to non-dangerous subm wrk symbol. Adjust position to that of LD=13 ft and add sounding.RWR

Survey Summary

Survey Position: 32° 45' 21.4" N, 079° 53' 11.4" W
Least Depth: 4.06 m (= 13.33 ft = 2.221 fm = 2 fm 1.33 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.962 m ; TVU (TPEv) ± 0.131 m
Timestamp: 2008-317.16:18:41.597 (11/12/2008)
Survey Line: my documents / nrt2_1210_sb / 2008-317 / 026_1617
Profile/Beam: 1737/1

Charts Affected: 11523_1, 11524_1, 11518_2, 11522_1, 11521_1, 11520_1, 11480_1, 11009_1, 411_1

Remarks:

Small areas of debris was located and developed. The vast majority of wreckage is gone, the remainder is Non-Dangerous in nature.

Feature Correlation

Address	Feature	Range	Azimuth	Status
my documents/nrt2_1210_sb/2008-317/026_1617	1737/1	0.00	000.0	Primary
my documents/nrt2_1210_klein3000hf_200sss/2008-301/sss081027135300	0001	0.63	110.6	Secondary
my documents/nrt2_1210_klein3000hf_100sss/2008-301/sss081027134400	0002	2.28	129.8	Secondary
my documents/nrt2_1210_klein3000hf_100sss/2008-218/sss080805141000	0004	11.59	225.2	Secondary
my documents/nrt2_1210_klein3000hf_100sss/2008-301/sss081027134400	0001	63.45	259.7	Secondary (grouped)
AWOIS	AWOIS # 10421	66.81	248.0	Secondary
my documents/nrt2_1210_klein3000hf_200sss/2008-301/sss081027135300	0003	67.64	258.5	Secondary (grouped)

Hydrographer Recommendations

Revise to non-dangerous subm wrk symbol. Adjust position to that of LD=13 ft and add sounding.

Cartographically-Rounded Depth (Affected Charts):

13ft (11523_1, 11524_1, 11518_2, 11522_1, 11521_1)

2 ¼fm (11520_1, 11480_1, 11009_1, 411_1)

S-57 Data

Geo object 1: Wreck (WRECKS)

Attributes: CATWRK - 1:non-dangerous wreck

CONVIS - 2:not visual conspicuous

QUASOU - 1:depth known

TECSOU - 1,2:found by echo-sounder,found by side scan sonar

VALSOU - 4.062 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

Concur

Feature Images

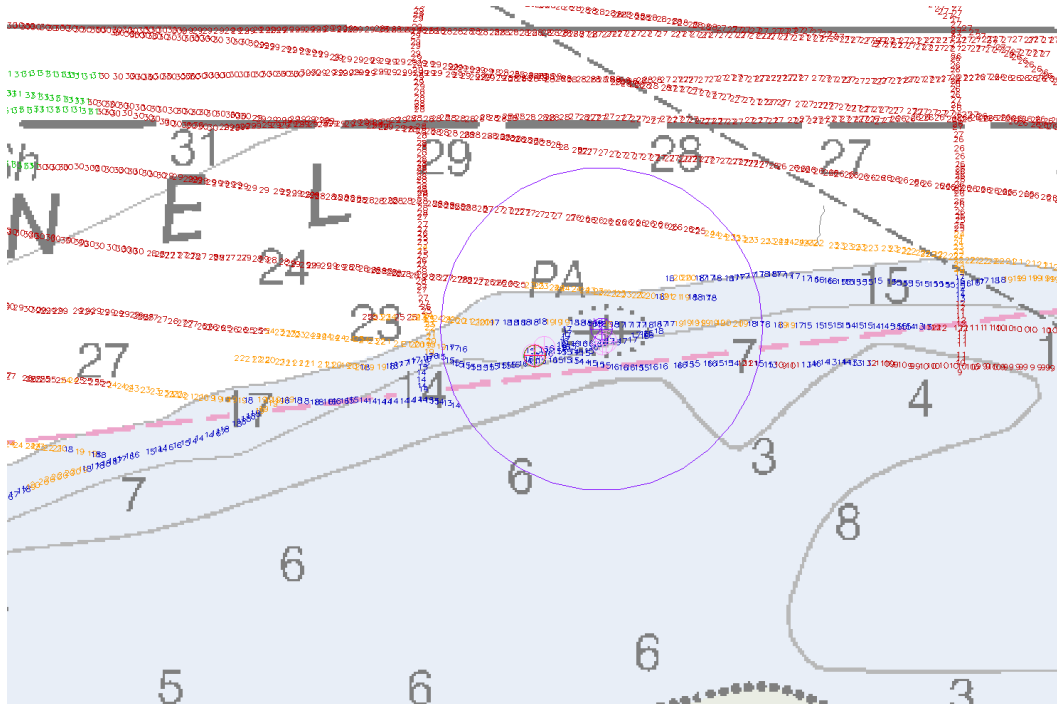


Figure 1.9.1

1.10) Awois#13820 - Remove

Primary Feature for AWOIS Item #13820

Search Position: 32° 48' 45.3" N, 079° 55' 45.7" W
Historical Depth: 11.95 m
Search Radius: 50
Search Technique: S2, ES
Technique Notes: [None]

History Notes:

S00006/02 -- S-G605-WH-02 (HLS); ■Survey Position: 032° 48' 45.321" N, 79° 55' 45.685" W ■Least Depth: 11.95 m ■Timestamp: 2002-317.17:46:48.606 (11/13/2002) ■Least depth of 39.21 feet (11.95 meters) over mounds/rocks located with 200% SSS and developed with 100% MB. ■UPDATED 9/27/2006 JCM ■■OPR-G347-NRT2-08 // H-11861,2008: Development of the area showed sand waves, and small mounding of a natural nature. There was a section of abandon pipe to the NW, which had a deeper depth than the shoaler natural feature, thus was not flagged as the primary feature. ■■Recommendation: Remove the 39 obstn, as the depths are common to deeper, and within the charted tabulation table. RWR

Survey Summary

Survey Position: 32° 48' 44.4" N, 079° 55' 46.0" W
Least Depth: 12.27 m (= 40.27 ft = 6.712 fm = 6 fm 4.27 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.984 m ; TVU (TPEv) ± 0.145 m
Timestamp: 2008-318.15:15:58.349 (11/13/2008)
Survey Line: my documents / nrt2_1210_sb / 2008-318 / 000_1514
Profile/Beam: 1198/1
Charts Affected: 11524_1, 11521_1, 11520_1, 11009_1, 411_1

Remarks:

Development of the area showed sand waves, and small mounding of a natural nature. There was a section of abandon pipe to the NW, which had a deeper depth than the shoaler natural feature, thus was not flagged as the primary feature.

Feature Correlation

Address	Feature	Range	Azimuth	Status
my documents/nrt2_1210_sb/2008-318/000_1514	1198/1	0.00	000.0	Primary
my documents/nrt2_1210_klein3000hf_200sss/2008-260/sss080916171500	0001	3.17	015.2	Secondary
AWOIS	AWOIS # 13820	29.33	193.9	Secondary
my documents/nrt2_1210_klein3000hf_100sss/2008-260/sss080916160800	0001	62.85	180.0	Secondary (grouped)
my documents/nrt2_1210_klein3000hf_100sss/2008-260/sss080916160800	0002	63.70	173.7	Secondary (grouped)
my documents/nrt2_1210_klein3000hf_100sss/2008-260/sss080916165000	0003	70.94	177.1	Secondary (grouped)

Hydrographer Recommendations

Remove the 39 obstn, as the depths are common to deeper, and within the charted tabulation table.

Cartographically-Rounded Depth (Affected Charts):

40ft (11524_1, 11521_1)

6 ¾fm (11520_1, 11009_1, 411_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: VALSOU - 12.274 m

Office Notes

Concur.

Feature Images

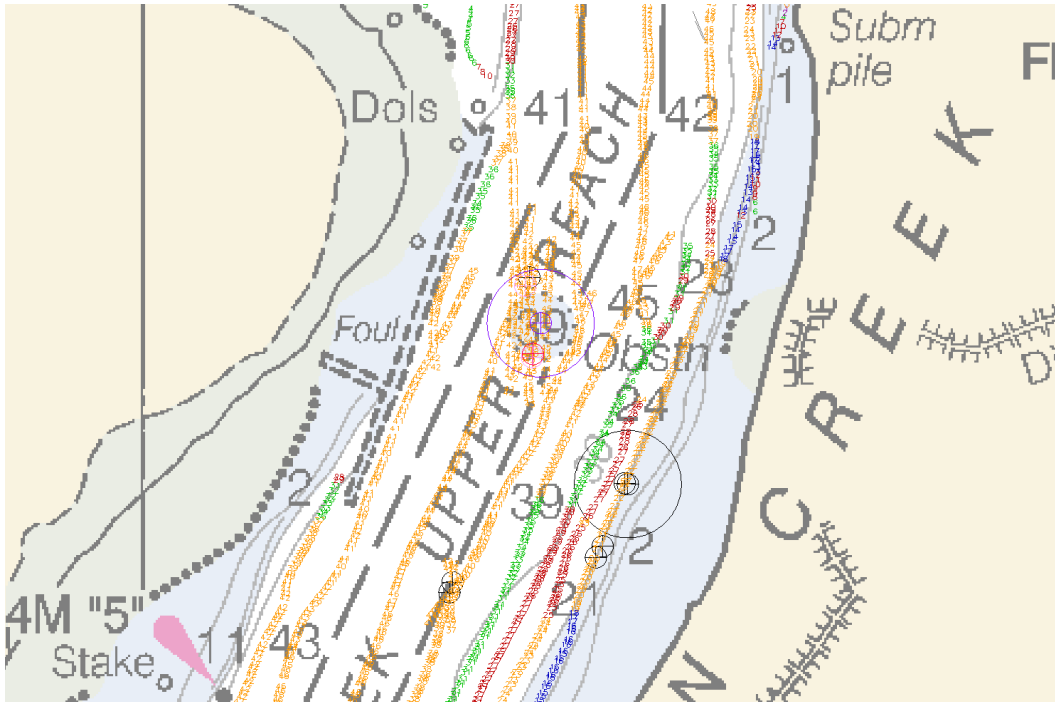


Figure 1.10.1

1.11) Awois#7502 - Retain

Primary Feature for AWOIS Item #7602

Search Position: 32° 46' 43.9" N, 079° 55' 02.8" W
Historical Depth: 2.10 m
Search Radius: 100
Search Technique: S2,ES,DI
Technique Notes: [None]

History Notes:

AWOIS ITEM 7602■■HISTORY■ CL751/76--SP-AMC-1-AHP-76; CHART DEFICIENCY SURVEY CONDUCTED AFTER THE U.S. NAVY REPORTED THAT THE "MS0 FEARLESS" RAN AGROUND i■IN NAVIGABLE WATERS. FATHOMETER, WIRE DRAG AND DIVER i■INVESTIGATIONS LOCATED A 50 X 18FT OBSTRUCTION CONSISTING OF i■ROCKS (3 FT IN DIAMETER) WITH PIECES OF WOOD PROTRUDING OUT OF IT i■OBSTRUCTION LOCATED IN POS. LAT.32-46.72N. LONG.79-55.06W WITH A i■LEAST DEPTH OF 6.2 FT MLW. (ENTERED 12/89 MCR)■ CL697/76--PRELIMINARY REPORT OF ABOVE■ NM50/75--REFERENCE■ BP95109--SOUNDING SHEET TO ACCOMPANY CL751/76■ H10784/98--OPR-G301-AHP; OBSTRUCTION FOUND IN LAT. 32/46/43.86N, LONG. 079/55/02.81W (NAD83) WITH A LEAST DEPTH OF 2.1 METERS (6.4 FEET) AT MLLW. (UPDATED 4/99 BY MBH)■■OPR-G347-NRT2-08 // H-11861,2008: This feature is a large mound, with a shoal depth at present of 8ft @ mllw.■■Recommendation: Retain as charted.RWR

Survey Summary

Survey Position: 32° 46' 44.2" N, 079° 55' 02.9" W
Least Depth: 2.41 m (= 7.90 ft = 1.317 fm = 1 fm 1.90 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.961 m ; TVU (TPEv) ± 0.130 m
Timestamp: 2008-317.18:03:52.257 (11/12/2008)
Survey Line: my documents / nrt2_1210_sb / 2008-317 / 031_1803
Profile/Beam: 491/1
Charts Affected: 11524_1, 11518_2, 11521_1, 11520_1, 11009_1, 411_1

Remarks:

This feature is a large mound, with a shoal depth at present of 8ft @ mllw.

Feature Correlation

Address	Feature	Range	Azimuth	Status
my documents/nrt2_1210_sb/2008-317/031_1803	491/1	0.00	000.0	Primary
AWOIS	AWOIS # 7602	10.15	349.5	Secondary
my documents/nrt2_1210_klein3000lf_200sss/2008-219/sss080806165400	0003	10.58	009.0	Secondary
my documents/nrt2_1210_klein3000hf_100sss/2008-220/sss080807130000	0001	17.42	006.4	Secondary

Hydrographer Recommendations

Retain as charted.

Cartographically-Rounded Depth (Affected Charts):

8ft (11524_1, 11518_2, 11521_1)

1 ¼fm (11520_1, 11009_1, 411_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: QUASOU - 1:depth known

TECSOU - 1,2:found by echo-sounder,found by side scan sonar

VALSOU - 2.408 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

Concur

Feature Images

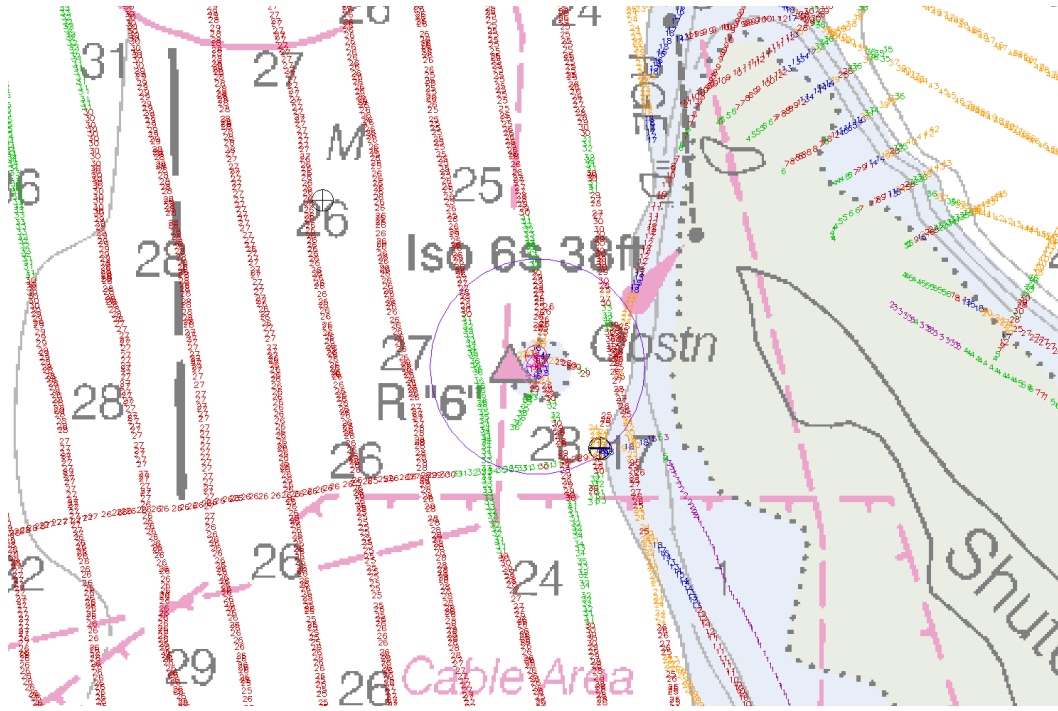


Figure 1.11.1

1.12) Awois#14195 - Remove

Primary Feature for AWOIS Item #14195

Search Position: 32° 45' 41.4" N, 079° 53' 12.5" W
Historical Depth: 6.71 m
Search Radius: 50
Search Technique: S2, ES
Technique Notes: [None]

History Notes:

LNM 4/98 from the USCG 7th district added a 22 foot obstructions to chart at 32°45'41.4"-079°53'12.50". (Entered CEH 4/8/2008)■■■OPR-G347-NRT2-08 // H-11861,2008: 200% sss located small debris. LD= 26 ft @ mllw on shoalest soundings.■■■Recommendation: Retain charted with depth adjusted to current survey depth of 26ft @ mllw.RWR

Survey Summary

Survey Position: 32° 45' 41.1" N, 079° 53' 12.8" W
Least Depth: 7.92 m (= 25.97 ft = 4.329 fm = 4 fm 1.97 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.969 m ; TVU (TPEv) ± 0.136 m
Timestamp: 2008-317.15:57:08.390 (11/12/2008)
Survey Line: my documents / nrt2_1210_sb / 2008-317 / 019_1556
Profile/Beam: 568/1
Charts Affected: 11523_1, 11524_1, 11518_2, 11522_1, 11521_1, 11520_1, 11480_1, 11009_1, 411_1

Remarks:

200% sss located small debris. LD= 26 ft @ mllw on shoalest soundings.

Feature Correlation

Address	Feature	Range	Azimuth	Status
my documents/nrt2_1210_sb/2008-317/019_1556	568/1	0.00	000.0	Primary
AWOIS	AWOIS # 14195	11.56	216.9	Secondary

my documents/nrt2_1210_klein3000hf_100sss/2008-206/sss080724155300	0002	16.25	234.9	Secondary
my documents/nrt2_1210_klein3000hf_200sss/2008-206/sss080724164800	0002	18.93	238.9	Secondary

Hydrographer Recommendations

Retain charted with depth adjusted to current survey depth of 26ft @ mllw.

Cartographically-Rounded Depth (Affected Charts):

26ft (11523_1, 11524_1, 11518_2, 11522_1, 11521_1)

4 ¼fm (11520_1, 11480_1, 11009_1, 411_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: CATOBS - 1:snag / stump

QUASOU - 1:depth known

TECSOU - 1,2:found by echo-sounder,found by side scan sonar

VALSOU - 7.916 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

Do not concur. Survey sounding of 25-ft is insignificant when compared to surrounding depths.
Remove charted Obstrn.

Feature Images

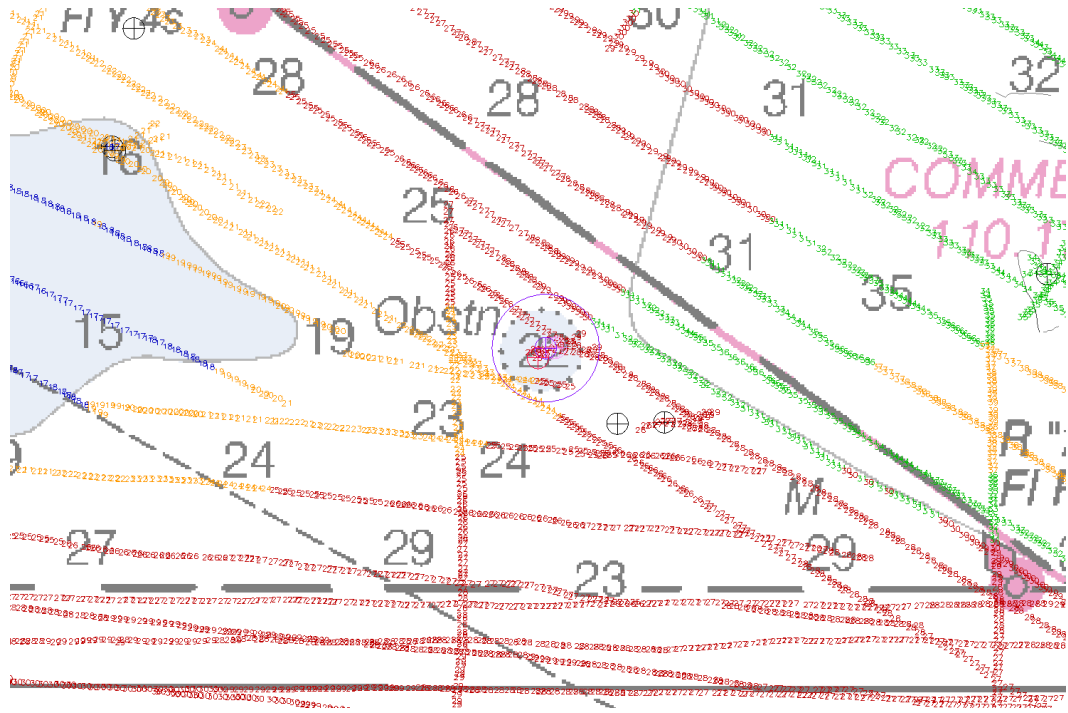


Figure 1.12.1

1.13) Awois#14196 - Remove

Primary Feature for AWOIS Item #14196

Search Position: 32° 48' 40.5" N, 079° 54' 43.6" W
Historical Depth: 8.53 m
Search Radius: 50
Search Technique: S2, ES
Technique Notes: [None]

History Notes:

L809-2003-- NOS; A DTON letter added a 28 foot obstruction at 32°48'40.482"-079°54'43.570". (Entered CEH 4/9/2008)■■■OPR-G347-NRT2-08 // H-11861,2008: Multiple clusters of abandon pipe section were located in the area, notably to the south, and east.■■■Recommendation:Retain currently charted subm obstn, with a modified LD=34ft @ mllw.

Survey Summary

Survey Position: 32° 48' 40.4" N, 079° 54' 43.1" W
Least Depth: 10.52 m (= 34.53 ft = 5.755 fm = 5 fm 4.53 ft)
TPU (±1.96σ): THU (TPEh) ±1.979 m ; TVU (TPEv) ±0.142 m
Timestamp: 2008-318.14:38:04.415 (11/13/2008)
Survey Line: my documents / nrt2_1210_sb / 2008-318 / 011_1437
Profile/Beam: 940/1
Charts Affected: 11524_1, 11521_1, 11520_1, 11009_1, 411_1

Remarks:

Multiple clusters of abandon pipe section were located in the area, notably to the south, and east.

Feature Correlation

Address	Feature	Range	Azimuth	Status
my documents/nrt2_1210_sb/2008-318/011_1437	940/1	0.00	000.0	Primary
my documents/nrt2_1210_klein3000hf_100sss/2008-259/sss080915153200	0001	5.71	011.1	Secondary
AWOIS	AWOIS # 14196	12.82	099.1	Secondary

my documents/nrt2_1210_klein3000hf_100sss/2008-259/sss080915153200	0003	15.95	037.2	Secondary
my documents/nrt2_1210_klein3000hf_100sss/2008-259/sss080915153200	0002	49.94	022.4	Secondary

Hydrographer Recommendations

Retain currently charted subm obstn, with a modified LD=34ft @ mllw.

Cartographically-Rounded Depth (Affected Charts):

34ft (11524_1, 11521_1)

5 ¾fm (11520_1, 11009_1, 411_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: CATOBS - 1:snag / stump

QUASOU - 1:depth known

TECSOU - 1,2:found by echo-sounder,found by side scan sonar

VALSOU - 10.524 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

Do not Concur. Survey sounding at 34-ft is insignificant when compared to the surrounding depths. Remove charted Obstrn.

Feature Images

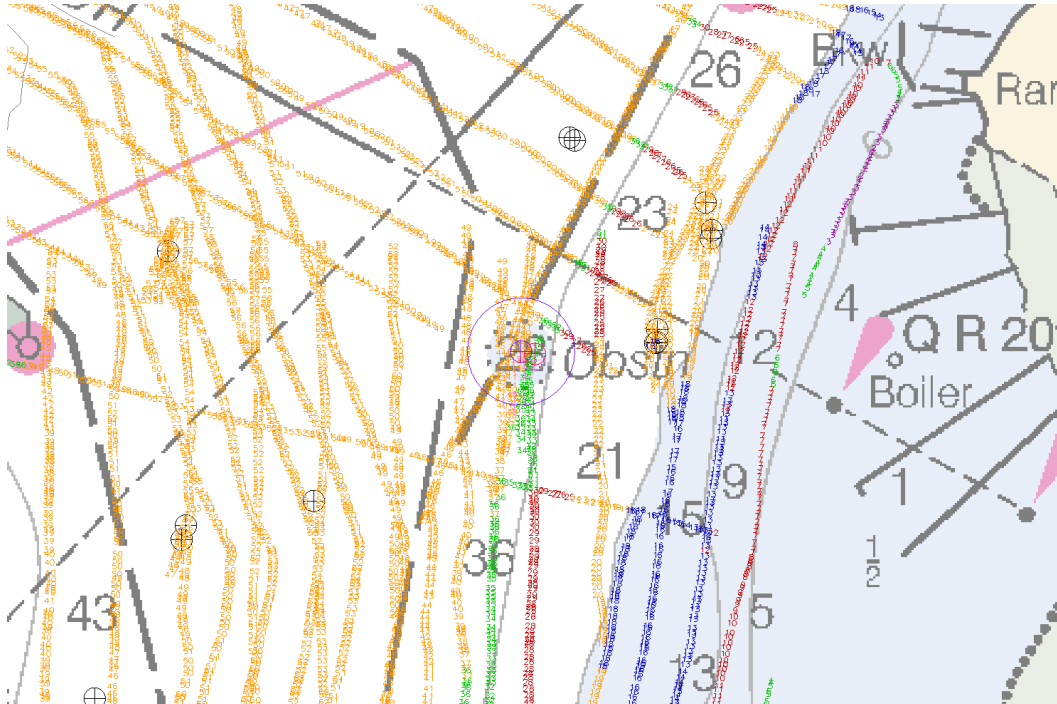


Figure 1.13.1

1.14) Obstrn 19-ft

Survey Summary

Survey Position: 32° 46' 14.1" N, 079° 54' 47.0" W
Least Depth: 5.97 m (= 19.58 ft = 3.263 fm = 3 fm 1.58 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** ± 1.965 m ; **TVU (TPEv)** ± 0.133 m
Timestamp: 2008-317.17:51:18.286 (11/12/2008)
Survey Line: my documents / nrt2_1210_sb / 2008-317 / 024_1750
Profile/Beam: 479/1
Charts Affected: 11524_1, 11518_2, 11522_1, 11521_1, 11520_1, 11009_1, 411_1

Remarks:

Large mound.

Feature Correlation

Address	Feature	Range	Azimuth	Status
my documents/nrt2_1210_sb/2008-317/024_1750	479/1	0.00	000.0	Primary
my documents/nrt2_1210_klein3000lf_200sss/2008-219/sss080806154500	0001	1.95	133.6	Secondary
my documents/nrt2_1210_klein3000hf_100sss/2008-219/sss080806161700	0002	15.12	350.8	Secondary
my documents/nrt2_1210_klein3000hf_200sss/2008-282/sss081008145300	0001	45.71	313.6	Secondary

Hydrographer Recommendations

Chart sounding.

Cartographically-Rounded Depth (Affected Charts):

19ft (11524_1, 11518_2, 11522_1, 11521_1)

3 ¼fm (11520_1, 11009_1, 411_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: VALSOU - 5.967 m

Office Notes

Concur with clarification. Chart 5.97m Obstrn at 32°46'14.096" , -079°54'47.014"

Feature Images

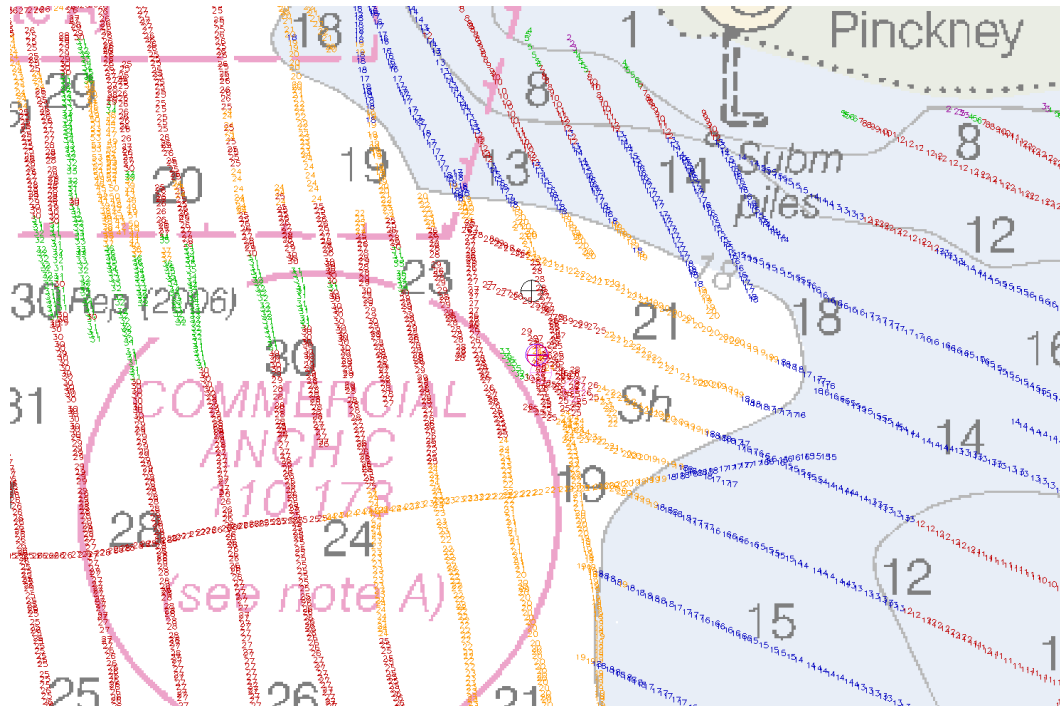


Figure 1.14.1

1.15) Subm Obstrn 13-ft

Survey Summary

Survey Position: 32° 46' 28.6" N, 079° 54' 58.4" W
Least Depth: 4.12 m (= 13.51 ft = 2.252 fm = 2 fm 1.51 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** ± 1.964 m ; **TVU (TPEv)** ± 0.131 m
Timestamp: 2008-316.16:25:40.894 (11/11/2008)
Survey Line: my documents / nrt2_1210_sb / 2008-316 / 034_1624
Profile/Beam: 1127/1
Charts Affected: 11524_1, 11518_2, 11522_1, 11521_1, 11520_1, 11009_1, 411_1

Remarks:

Identified subm ruins of old plats, with a least depth of 13 ft.

Feature Correlation

Address	Feature	Range	Azimuth	Status
my documents/nrt2_1210_sb/2008-316/034_1624	1127/1	0.00	000.0	Primary
my documents/nrt2_1210_klein3000lf_200sss/2008-219/sss080806165400	0001	6.76	226.6	Secondary (grouped)
my documents/nrt2_1210_sb/2008-316/034_1624	1086/1	6.98	083.4	Secondary (grouped)
my documents/nrt2_1210_klein3000lf_100sss/2008-220/sss080807133900	0002	8.31	096.5	Secondary
my documents/nrt2_1210_klein3000hf_100sss/2008-220/sss080807133900	0002	9.02	085.8	Secondary (grouped)
my documents/nrt2_1210_klein3000lf_100sss/2008-220/sss080807133900	0001	21.52	247.1	Secondary (grouped)
my documents/nrt2_1210_klein3000hf_100sss/2008-220/sss080807133900	0001	22.31	249.5	Secondary

Hydrographer Recommendations

Chart subm obstn 13ft @mllw

Cartographically-Rounded Depth (Affected Charts):

13ft (11524_1, 11518_2, 11522_1, 11521_1)

2 ¼fm (11520_1, 11009_1, 411_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)
Attributes: CATOBS - 1:snag / stump
CONDTN - 2:ruined
QUASOU - 1:depth known
TECSOU - 1,2:found by echo-sounder,found by side scan sonar
VALSOU - 4.118 m
VERDAT - 12:Mean lower low water
WATLEV - 3:always under water/submerged

Office Notes

Concur

Feature Images

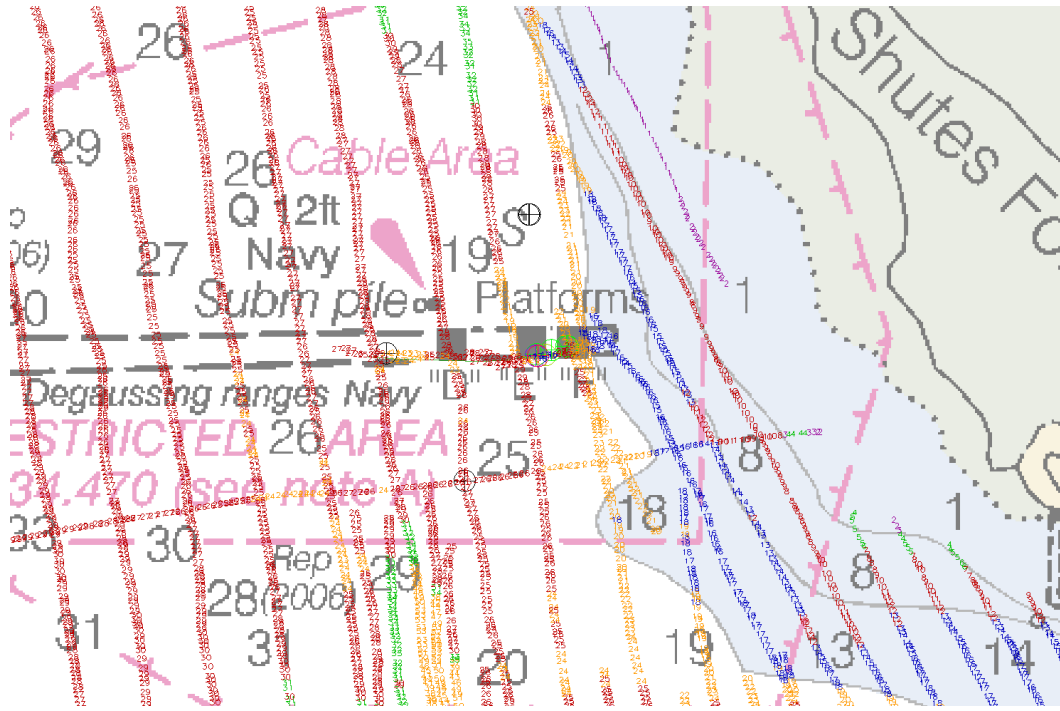


Figure 1.15.1

1.16) Obstrn 14-ft

Survey Summary

Survey Position: 32° 47' 42.7" N, 079° 54' 46.5" W
Least Depth: 4.42 m (= 14.50 ft = 2.417 fm = 2 fm 2.50 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** ± 1.964 m ; **TVU (TPEv)** ± 0.132 m
Timestamp: 2008-318.16:28:23.518 (11/13/2008)
Survey Line: my documents / nrt2_1210_sb / 2008-318 / 028_1627
Profile/Beam: 464/1
Charts Affected: 11524_1, 11518_2, 11521_1, 11520_1, 11009_1, 411_1

Remarks:

adjacent foul area due east.

Feature Correlation

Address	Feature	Range	Azimuth	Status
my documents/nrt2_1210_sb/2008-318/028_1627	464/1	0.00	000.0	Primary
my documents/nrt2_1210_klein3000hf_200sss/2008-302/sss081028130100	0001	2.24	215.0	Secondary
my documents/nrt2_1210_klein3000hf_100sss/2008-302/sss081028124300	0001	5.47	012.3	Secondary

Hydrographer Recommendations

chart obstn of 14ft.

Cartographically-Rounded Depth (Affected Charts):

14ft (11524_1, 11518_2, 11521_1)

2 ¼fm (11520_1, 11009_1, 411_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: CATOBS - 6:foul area

QUASOU - 1:depth known

TECSOU - 1,2:found by echo-sounder,found by side scan sonar

VALSOU - 4.421 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

Concur.

1.17) Buoy - FL R 38

Survey Summary

Survey Position: 32° 47' 47.2" N, 079° 54' 57.6" W
Least Depth: 11.38 m (= 37.32 ft = 6.220 fm = 6 fm 1.32 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** ± 1.979 m ; **TVU (TPEv)** ± 0.141 m
Timestamp: 2008-297.16:12:31.000 (10/23/2008)
DP Dataset: my documents / nrt2_1210_dpnonechosounder / 2008-297 / nav aid 10232008
Profile/Beam: 1/1
Charts Affected: 11524_1, 11518_2, 11521_1, 11520_1, 11009_1, 411_1

Remarks:

New buoy location. LNM 47-01 shows position 32°47'47.286"N 079°54'58.116"W, close to survey position, which has apparently not been applied to chart. See ATON movement LNM 48-2008.pdf, Appendices V.

Feature Correlation

Address	Feature	Range	Azimuth	Status
my documents/nrt2_1210_dpnonechosounder/2008-297/nav aid 10232008	1/1	0.00	000.0	Primary
my documents/nrt2_1210_klein3000hf_100sss/2008-259/sss080915135500	0003	4.01	211.7	Secondary
my documents/nrt2_1210_klein3000hf_100sss/2008-259/sss080915140900	0001	5.89	174.8	Secondary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

37ft (11524_1, 11518_2, 11521_1)

6 ¼fm (11520_1, 11009_1, 411_1)

S-57 Data

Geo object 1: Beacon, special purpose/general (BCNSPP)

Office Notes

Concur

Feature Images

[Image file h:/compilation/h11861_g347-nrt2/ahb_h11861/pss/screen grabs/sss080910003_m.tif does not exist.]

1.18) AWOIS #11455 - Charted - Obstrn PA

No Primary Survey Feature for this AWOIS Item

Search Position: 32° 48' 12.6" N, 079° 55' 03.4" W
Historical Depth: [None]
Search Radius: 250
Search Technique: S2,ES,SD
Technique Notes: [None]

History Notes:

LN10/01--7CGD (3/6/01); REPORTS A SUBMERGED OBSTRUCTION IN THE VICINITY OF THE COOPER RIVER BRIDGE IN POSITION APPROXIMATE LAT. 32/48/12.60N, LONG. 079/55/03.40W (NAD83). (ENTERED 4/02 BY MBH)■■S00006/02 -- S-G605-WH-02■item not fully investigated; 15% of AWOIS radius covered with 200% SSS and VB. Retain item as charted.■Updated 9/28/2006 JCM.■■OPR-G347-NRT2-08 , H-11861,2008: This obstruction is now the center of the main western bridge support. ■■Recommend Removal.RWR

Survey Summary

Charts Affected: 11524_1, 11518_2, 11521_1, 11520_1, 11009_1, 411_1

Remarks:

This Awois is now covered by the Western Main Bridge support Island. The currently charted ruins should be expanded.post contact development showed no significant depth variance, or feature significance to warrant retaining, therefore item was rejected.

Feature Correlation

Address	Feature	Range	Azimuth	Status
AWOIS	AWOIS # 11455	0.00	000.0	Primary

Hydrographer Recommendations

Remove from Charts.

S-57 Data

Geo object 1: Obstruction (OBSTRN)
Attributes: CATOBS - 7:foul ground
INFORM - Now a brdg support
WATLEV - 2:always dry

Office Notes

Concur. Remove from charts.

Feature Images

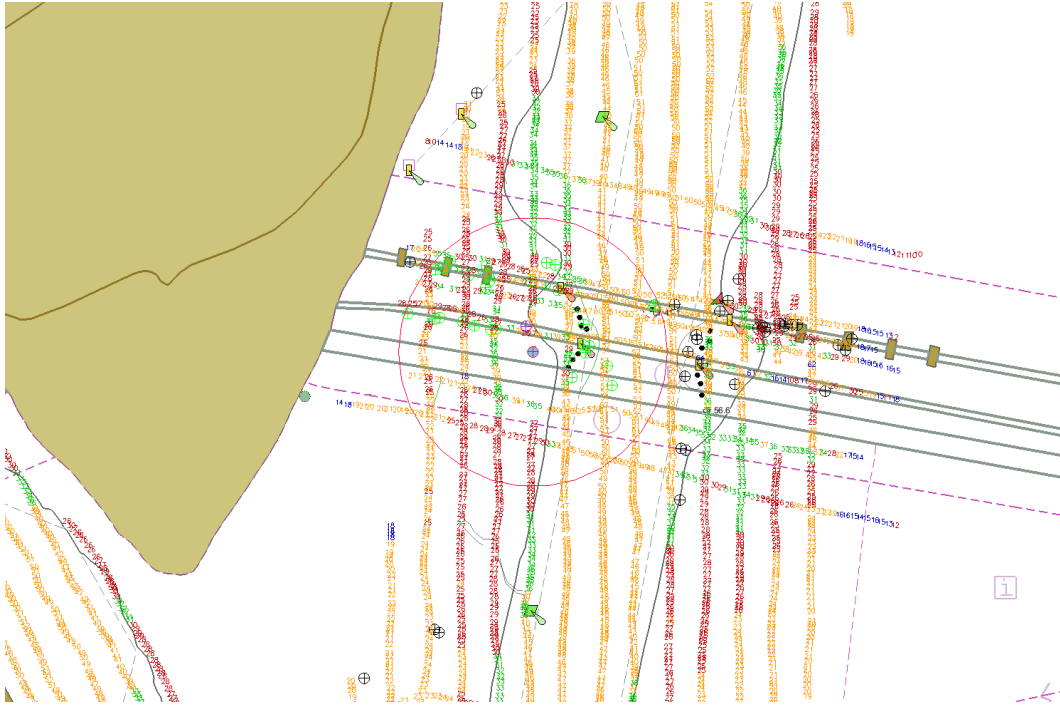


Figure 1.18.1

1.19) AWOIS #520 - AWOIS - Retain

No Primary Survey Feature for this AWOIS Item

Search Position: 32° 47' 55.7" N, 079° 54' 24.8" W
Historical Depth: [None]
Search Radius: 0
Search Technique: VS, DI, SD,
Technique Notes: [None]

History Notes:

ITEM IS ASSIGNED AS AN INFORMATION ITEM SINCE IT IS IN AN AREA THAT IS CURRENTLY CHARTED AS A SPOIL AREA. HISTORY H5433A/33-34--VISIBLE WRECK BARE 4 FT. MHW H8768/63--UNVERIFIED SURVEY; VISIBLE WRECK, CONCRETE BARGE, BARE 7' AT MLW. CL1703/74--USPS; REPORTED THAT THE WRECK WAS NO LONGER VISIBLE. CHART HAS NOT BEEN CHANGED. REMAINS AS A VISIBLE WRECK. (ENTERED 3/96 BY MBH) OPR-G347-NRT2-08 // H-11861,2008: verified visually as a large wooden visible wrk. Recommendation: Retain as charted. RWR

Survey Summary

Charts Affected: 11524_1, 11518_2, 11521_1, 11520_1, 11009_1, 411_1

Remarks:

verified visually as a large wooden visible wrk.

Feature Correlation

Address	Feature	Range	Azimuth	Status
AWOIS	AWOIS # 520	0.00	000.0	Primary

Hydrographer Recommendations

Retain as charted.

S-57 Data

Geo object 1: Wreck (WRECKS)

Office Notes

Concur.

Feature Images

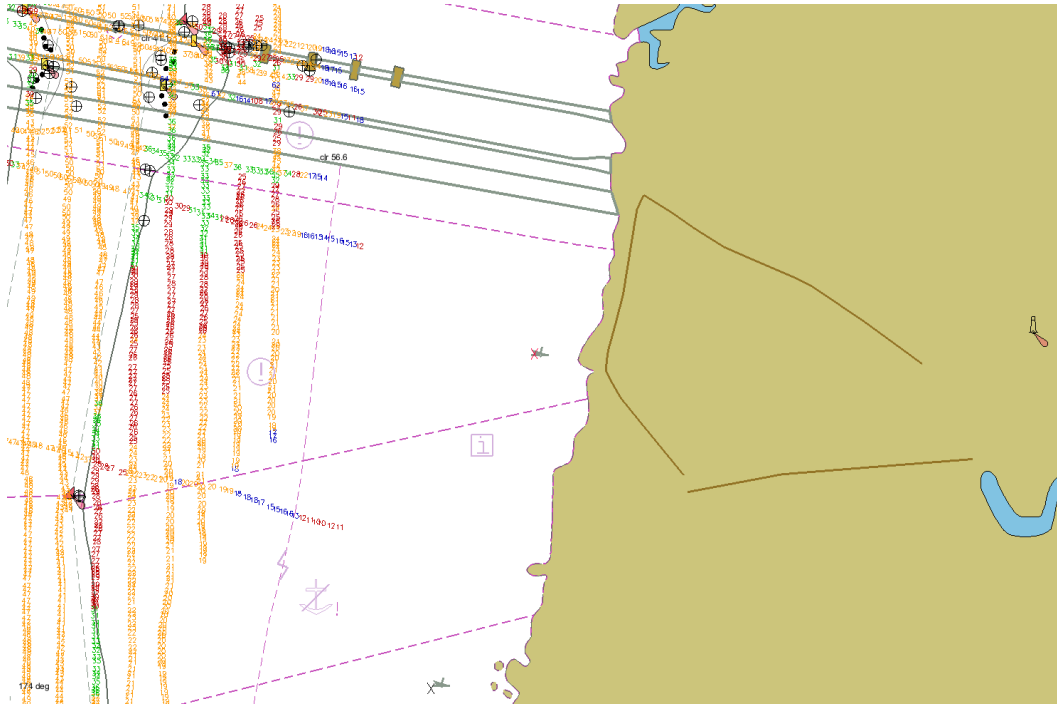


Figure 1.19.1

From postmaster@noaa.gov
Sent Thursday, November 20, 2008 3:37 pm
To Robert.Ramsey@noaa.gov



Subject Delivery Notification: Message successfully forwarded

Attachments message/delivery-status

1K

This report relates to a message you sent with the following header fields:

Message-id: <fd562a1d616e0c1d.49258425@noaa.gov>
Date: Thu, 20 Nov 2008 15:37:09 GMT
From: <Robert.Ramsey@noaa.gov>
To: survey.outlines@noaa.gov
Subject: OPR-G347-NRT2-08, H-11861 Survey Outlines

Your message has been successfully relayed to the recipients

Recipient address: survey.outlines@noaa.gov
Reason: message accepted for list expansion processing

on a remote system that does not support the generation of successful delivery receipts. This does NOT mean that your message has actually been placed in the recipients' mailboxes; merely that it has passed through a part of the message transport infrastructure. In the event of a nondelivery you should expect to receive a nondelivery notification; in the event of successful delivery, however, you are unlikely to receive a positive confirmation of delivery.

Return-path: <Robert.Ramsey@noaa.gov>
Disposition-notification-to: <Robert.Ramsey@noaa.gov>
Received: from noaa.gov ([127.0.0.1])
by mail.nos.noaa.gov (Sun Java System Messaging Server 6.2-7.05 (built Sep 5 2006)) id <0KAM00K01VELP600@mail.nos.noaa.gov>; Thu, 20 Nov 2008 10:37:11 -0500 (EST)
Received: from noaa.gov ([127.0.0.1])
by mail.nos.noaa.gov (Sun Java System Messaging Server 6.2-7.05 (built Sep 5 2006)) with ESMTP id <0KAN000UI21XOKB0@mail.nos.noaa.gov> for survey.outlines@noaa.gov; Thu, 20 Nov 2008 10:37:09 -0500 (EST)
Received: from [70.153.42.143] by mail.nos.noaa.gov (mshttpd); Thu, 20 Nov 2008 15:37:09 GMT
Date: Thu, 20 Nov 2008 15:37:09 GMT
From: <Robert.Ramsey@noaa.gov>
Subject: OPR-G347-NRT2-08, H-11861 Survey Outlines
To: survey.outlines@noaa.gov
Message-id: <fd562a1d616e0c1d.49258425@noaa.gov>
MIME-version: 1.0
X-Mailer: Sun Java(tm) System Messenger Express 6.2-7.05 (built Sep 5 2006)
Content-language: en
X-Accept-Language: en
Priority: normal



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

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE : December 2, 2008

HYDROGRAPHIC BRANCH: Atlantic
HYDROGRAPHIC PROJECT: OPR-G347-NRT2-2008
HYDROGRAPHIC SHEET: H11861

LOCALITY: Charleston Harbor, SC
TIME PERIOD: July 21 - November 13, 2008

TIDE STATION USED: Charleston, SC 866-5530
Lat. 32° 46.9' N Long. 79° 55.4' W

PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 1.648 meters

REMARKS: RECOMMENDED ZONING

Please use the TCARI grid "G347NRT22008-TCARI" as the final grid for project OPR-G347-NRT2-2008, H11861, during the time period between July 21 and November 13, 2008.

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).

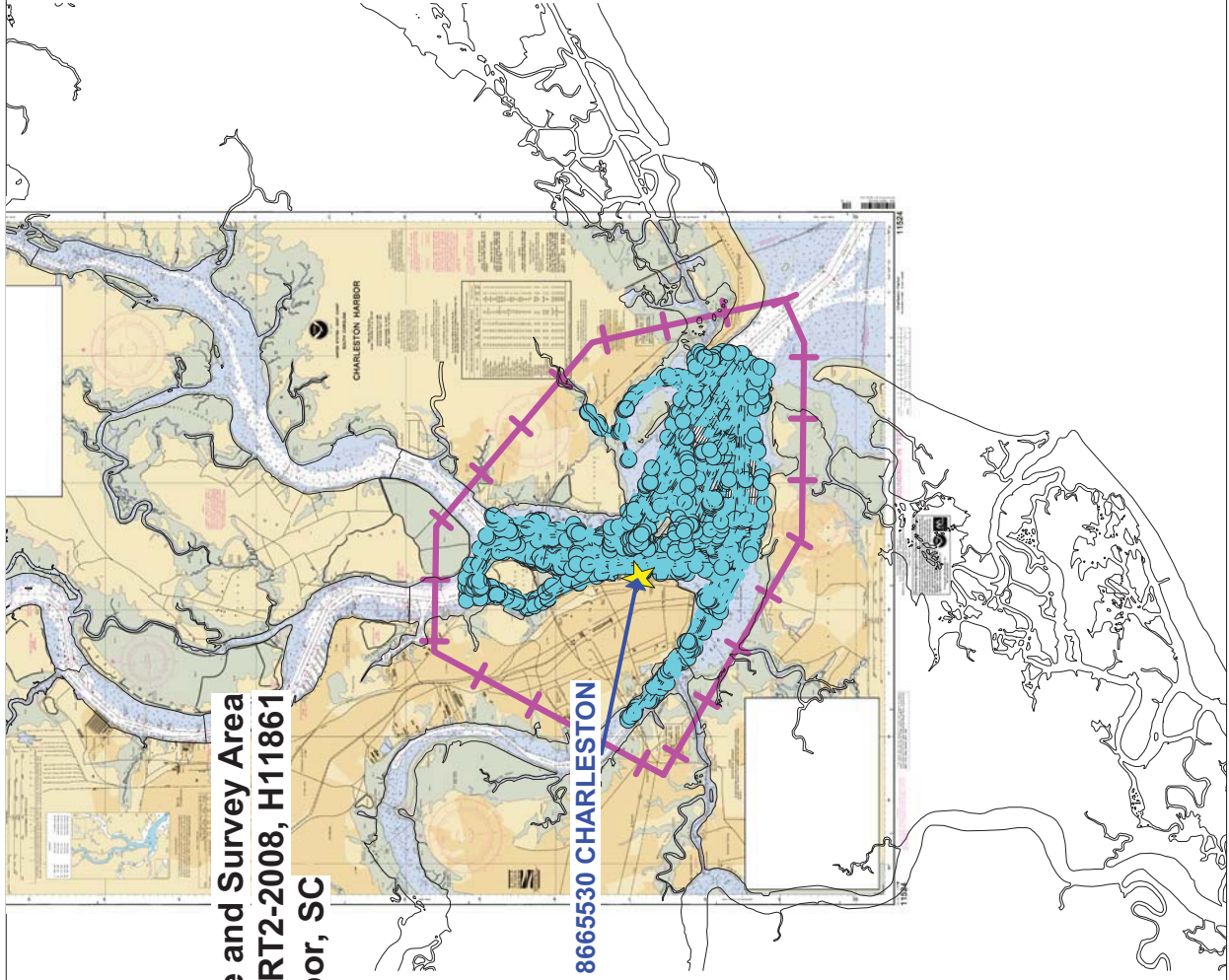
Peter J. Stone

Digitally signed by Peter J. Stone
DN: cn=Peter J. Stone, o=CO-OPS, ou=NOAA/NOS,
email=peter.stone@noaa.gov, c=US
Date: 2008.12.03 09:40:41 -05'00'

CHIEF, OCEANOGRAPHIC DIVISION



**TCARI Shoreline and Survey Area
for OPR-G347-NRT2-2008, H11861
Charleston Harbor, SC**



From David.Elliott@noaa.gov
Sent Saturday, November 15, 2008 7:50 pm
To Robert Ramsey <Robert.Ramsey@noaa.gov>
Subject Fwd: NOAA Response to inquiry sent on 10/24/2008

FYI, D.

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

From nautical.charting@noaa.gov
Date Fri, 14 Nov 2008 09:06:43 -0500
To David.Elliott@noaa.gov
Subject NOAA Response to inquiry sent on 10/24/2008

Printed below is a tabulated listing of the information
you provided on 10/24/2008.

Report number: 11134
Date submitted: 10/24/2008
Name: David Elliott
Organization: NOS - OCS-NSD-NRB-Navigation Response Team 2
Email: david.elliott@noaa.gov
Daytime phone number: (843)881-5590
Time zone: Eastern
Date observed: 10-24-08
Time observed: 10-24-08
Affected charts: 11524, Edition 51
Position information: 32° 47' 37.730"N - 79° 54' 58.116"W
Discrepancy Description: Buoy R "38" is charted in the wrong location (at gp provided above). It should be further North as indicated on attached graphic. Appears from research done by NDB, that buoy should have been relocated thru LNM49-01, but was not.

Resolution/Response

Thank you for alerting us to this.

D7 has confirmed that the position from LNM 49/2001 is the correct position. The Coast Guard will accept a Notice from us and the correction will appear in LNM 48/2008. We'll update the chart products. POD should appear Monday, ENC on Tuesday, and BSB next Thursday.

Thank you for your interest in NOAA's Nautical Chart Products.
We appreciate you taking the time to bring this matter to our attention.

From Robert.Ramsey@noaa.gov

Sent Thursday, November 20, 2008 3:20 pm

To mcd.dton@noaa.gov , Douglas Harpine <Douglas.Harpine@noaa.gov> , Lyn Preston <Lyn.Preston@noaa.gov>

Cc "Robert.Ramsey@noaa.gov" <Robert.Ramsey@noaa.gov>

Subject DTON Submission H-11861 CHARS SC

Do to file size limits imposed by our email system the following DTON can be downloaded from the attached link:

ftp://spo.nos.noaa.gov/Public/NRT2/H11861_DTON_11202008.zip

Please verify receipt of this file via email to Robert.Ramsey@noaa.gov upon ftp download, and action. Pending that email, the return receipt requested with this email will at as a filler for actual receipt of the DTON submission.

DTON for OPR-G347-NRT2-08, H-11861,2008 1:10,000 scale survey

Information contact DB Elliott or RW Ramsey

843-881-5590

Thank You,

Bob Ramsey

From Douglas Harpine <Douglas.Harpine@noaa.gov>

Sent Friday, November 21, 2008 4:06 pm

To Castle Parker <Castle.E.Parker@noaa.gov> , Dave Neander <Dave.Neander@noaa.gov> , Ed Martin <Ed.Martin@noaa.gov> , Howard Danley <Howard.Danley@noaa.gov> , James M Crocker <James.M.Crocker@noaa.gov> , Ken Forster <Ken.Forster@noaa.gov> , Mark Griffin <Mark.Griffin@noaa.gov> , Joseph Robinson <Joseph.Robinson@noaa.gov> , Richard Sillcox <Richard.Sillcox@noaa.gov> , Shep Smith <Shep.Smith@noaa.gov> , Stephen Hill <Stephen.Hill@noaa.gov> , Travis Newman <Travis.Newman@noaa.gov> , Robert.Ramsey@noaa.gov

Subject Danger to Navigation

Attachments vCard(Douglas_Harpine)

1K

To whom it may concern

Chart letter 1255/08 and DD12644 have been processed by the Nautical Data Branch and put into Products Branch E's box. This involves numerous piles. Also markers designating a pipeline crossing in the Charleston, SC area. At the beginning of the Mount Pleasant Channel (32-46-20N 79-52-30W).

NOTE: There is no pipeline charted in this area on the charts affected by this DTON. Nautical Data Branch will investigate this.

This affects the following charts: 11523 (KAPP 214)
11524 (KAPP 215)
11518 (KAPP 225)

This also affects ENC Cells US5SC13M & US5SC14M.

This was reported by the Atlantic Hydrographic Branch.

REFERENCES: H-11861
OPR-G347-NRT2-08

Douglas Harpine

From Douglas Harpine <Douglas.Harpine@noaa.gov>

Sent Wednesday, December 3, 2008 5:46 pm

To Castle Parker <Castle.E.Parker@noaa.gov> , Ed Martin <Ed.Martin@noaa.gov> , Howard Danley <Howard.Danley@noaa.gov> , James M Crocker <James.M.Crocker@noaa.gov> , Joseph Robinson <Joseph.Robinson@noaa.gov> , Ken Forster <Ken.Forster@noaa.gov> , Kevin Shaw <Kevin.Shaw@noaa.gov> , Mark Griffin <Mark.Griffin@noaa.gov> , Richard Sillcox <Richard.Sillcox@noaa.gov> , Shep Smith <Shep.Smith@noaa.gov> , Stephen Hill <Stephen.Hill@noaa.gov> , Travis Newman <Travis.Newman@noaa.gov> , Robert Ramsey <Robert.Ramsey@noaa.gov>

Subject Danger to Navigation

Attachments vCard(Douglas_Harpine)

1K

To whom it may concern

Chart letter 1271/08 and DD12701 has been processed by the Nautical Data Branch and put into Product Branch E's box. This involves a submerged obstruction and a shoal sounding. These fall in the Cooper River east of Charleston, SC.

This affects the following charts: 11524 (KAPP 215)
11518 (KAPP 225)

This also affects ENC Cell US5SC14M.

This was reported by NSD's Navigation Response Team #2.

REFERENCES: H-11861
OPR-G347-NRT2-08

Douglas Harpine

From "AMER, CHRISTOPHER" <AMERC@mailbox.sc.edu>

Sent Tuesday, November 4, 2008 8:33 pm

To Robert.Ramsey@noaa.gov

Subject RE: RE: Charleston Survey

Thanks Bob. I spoke with Bob Dodson. He told me that some of the 'oldtimers' remembered that the wreck is that of a sport fisherman vessel that burned and sank at approximately that location some 10 or 15 years ago. Not terribly historic-yet. Maybe in another 35 or 40 years. I'd still like the scale of the image if you would let me know tomorrow. Thanks

Chris

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

From: Robert.Ramsey@noaa.gov [mailto:Robert.Ramsey@noaa.gov]

Sent: Tuesday, November 04, 2008 2:29 PM

To: AMER, CHRISTOPHER

Cc: David Elliott

Subject: Re: RE: Charleston Survey

Chris,

I'll send them tomorrow, I out of the OT right now. Your position of 60 off is about right, I did not want to get to specific in an open text. We have already confirmed the Patapsco, and have left it uncharted on the exact position, with advisories to stay that way.

I'll get up with you Wednesday, have a good evening.

Bob

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

From: "AMER, CHRISTOPHER" <AMERC@mailbox.sc.edu>

Date: Tuesday, November 4, 2008 5:11 pm

Subject: RE: Charleston Survey

To: Robert.Ramsey@noaa.gov

Cc: "Spirek, Jim" <spirek@sc.edu>

> Bob:

> Thanks for the image. The coordinates put it really close (some 60 meters) off the end of the Ft. Sumter dock. We do not have any records

> of a wreck in that location, the closest known wreck is the Patapsco,

> located some 700 meters east of that location. Bob Dodson,

> superintendent of Moultrie/Sumter, might know about it. I have left a

> message with him. What are the dimensions of the wreck? I could not

> get a clear idea from the image. Thanks.

>

> Chris

>

> Christopher F. Amer

> State Underwater Archaeologist

> Maritime Research Division

> South Carolina Institute of Archaeology and Anthropology

> University of South Carolina

> 1321 Pendleton Street

> Columbia, SC 29208

> Office phone: (803)777-8170

> Cell phone: (803)331-2672

> Fax: (803)254-1338

> E-mail: amerc@sc.edu

> SCIAA Web Site:

> Maritime Research Division Website:

>

>

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

> From: Robert.Ramsey@noaa.gov [

> Sent: Monday, November 03, 2008 1:34 PM

> To: amerc@sc.edu; amerc@sc.edu; David Elliott

> Subject: Charleston Survey

> Importance: High

>

> Mr. Christopher Amer,

>

> Attached is a image, If you could check your data base to position,
> and

> advise if this is a Historic wrk, or we should chart it.

>

> Any questions, please call 904-229-9359 / 60.

>

> Thanks,

>

> Bob Ramsey

AHB COMPILATION LOG

General Survey Information	
REGISTRY No.	H11861
PROJECT No.	OPR-G347-NRT2-08
FIELD UNIT	NOAA NAVIGATIONAL RESPONSE TEAM 2
DATE OF SURVEY	21 JULY 2008 TO 13 NOVEMBER 2008
LARGEST SCALE CHART	<i>11524, edition 51th, 20080201, 1:20,000</i>
ADDITIONAL CHARTS	<i>11523, edition 24th, 20080401, 1:20,000</i>
SOUNDING UNITS	feet
COMPILER	CASIE CARROTT

Source Grids	File Name
	H:\Compilation\H11861_G347-NRT2\AHB_H11861\ E-SAR Final Products\GRIDS\H11861_TCARI_SB_5m_Final.hns
Surfaces	File Name
	H:\Compilation\H11861_G347-NRT2\AHB_H11861\COMPILE\Working\ H11861_5m_Combined.hns
<i>Combined</i>	H11861_5m_Combined.hns
<i>Interpolated TIN</i>	\Interpolated TIN\H11861_5m_InterpTIN.hns
<i>Shifted Interpolated TIN</i>	\Shifted Surface\H11861_5m_InterpTIN_Shifted.hns
<i>Product Surface</i>	n\a
Final HOBs	File Name
	H:\Compilation\H11861_G347-NRT2\AHB_H11861\COMPILE\Final_Hobs\ H11861_SS_Soundings.hob
<i>Survey Scale Soundings</i>	H11861_SS_Soundings.hob
<i>Chart Scale Soundings</i>	H11861_CS_Soundings.hob
<i>Contour Layer</i>	H11861_Contours.hob
<i>Feature Layer</i>	H11861_Features.hob
<i>Meta-Objects Layer</i>	H11861_MetaObjects.hob
<i>Blue Notes</i>	H11861_BlueNotes.hob
<i>ENC Retain Soundings</i>	n\a

Meta-Objects Attribution	
Acronym	Value
M_COVR	
CATCOV	Coverage available
SORDAT	20081113
SORIND	US,US,survy,H11861
M_QUAL	
CATZOC	Zone of confidence U (data not assessed)
INFORM	H11861, NOAA Launch 1210
POSACC	10
SORDAT	20081113
SORIND	US,US,survy,H11861
SUREND	20081113
SURSTA	20080721

[Type text]

**ATLANTIC HYDROGRAPHIC BRANCH
EVALUATION REPORT to ACCOMPANY
SURVEY H11861 (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 r2686
CARIS HIPS/SIPS version 6.1 SP1 HF 1-6
CARIS Bathy Manager version 2.1 HF 1-3
DKART INSPECTOR, version 5.0 Build 732 SP1
CARIS HOM version 3.3
CARIS S57 Composer version 2.0

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 5m grids, combined at 5 meter resolution, then using them to create a product surface grid with a resolution of 5m. The survey scale selected soundings were extracted from the 5m product surface. The selected sounding set is approximately 10 to 20 times the number of charted depths. The chart scale selected soundings are a subset of the survey scale selected soundings. The surface model was referenced when selecting the chart scale soundings, to ensure that the selected soundings portrayed the bathymetry within the common area.

Depth curves were created from a 5m product surface grid. The 5m grid resolution product surface model was generated at a scale of 1:40,000, generalization radius of 5m with no defocusing. The depth curves are forwarded to MCD for reference only. The curves were utilized during chart scale sounding selection and quality assurances efforts at AHB. The depth curves are incorporated into the S57 Blue Note deliverable.

The pre-compilation products or components (Stand Alone HOB files (SAHOB)) are detailed in the Compile Process Log attached at the end of this document. The SAHOB files included depth curves (DEPCNT), sounding selections (SOUNDG), features (SBDARE), Meta objects (M_COVR, M_QUAL), and cartographic Blue Notes. The individual SAHOB files were inserted into one BASE Manager feature layer and exported to S57 format in order to create the H-Cell deliverable.

The completed H-Cell was exported as a Base Cell File (ENC.000) in S-57 format with all values in metric units. The metric equivalent ENC.000 file was then converted to

NOAA chart units (ENC_CU.000) with all values measured in feet following NOAA sounding rounding rules.

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

The H11861 CARIS H-Cell final deliverables include the following products:

US511861_CS.000	1: <u>40,000</u> Scale	H11861 H-Cell with Chart Scale Selected Soundings
US511861_SS.000	1: <u>10,000</u> Scale	H11861 Selected Soundings (Survey Scale)

D. RESULTS AND RECOMMENDATIONS

D.1 CHART COMPARISON

11518 (35th Edition, 05/01/2006)

Corrected through NM 04/18/2009
Corrected through LNM 04/14/2009
Scale 1:40,000

11523 (24th Edition, 04/01/2008)

Corrected through NM 04/18/2009
Corrected through LNM 04/14/2009
Scale 1:20,000

11524 (51st Edition, 02/01/2008)

Corrected through NM 04/18/2009
Corrected through LNM 04/14/2009
Scale 1:20,000

ENC Comparison

US5SC13M

Charleston Harbor Entrance
Edition 10
Application Date 2007-05-15
Issue Date 2008-02-19
Chart 11523

US5SC14M

Charleston Harbor
Edition 17
Application Date 2008-02-05
Issue Date 2008-02-05
Chart 11524

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 Obstruction charted in Latitude $32^{\circ} 45' 13.091''\text{N}$, Longitude $079^{\circ} 53' 55.035''\text{W}$ on NOS Chart 11524, 51st edition was charted as a 15-ft Obstrn. The present survey proved the existence of the Obstrn using Side Scan imagery (see attached image below).



b. The Sewer Pipe charted in Latitude $32^{\circ} 46' 01.685''\text{N}$, Longitude $079^{\circ} 56' 17.651''\text{W}$ on NOS Chart 11524, 51st edition only falls only partly within the survey boundary; therefore, the sewer pipe was retained.

c. The Wreck charted in Latitude $32^{\circ} 47' 25.628''\text{N}$, Longitude $079^{\circ} 53' 04.425''\text{W}$ on NOS Chart 11524, 51st edition was disproved using Side Scan Editor, because the wreck did not appear in the imagery and soundings were characteristic of the surrounding sounding depths. Recommended to be removed from charts.

d. The Shoal 30-ft charted area in Latitude $32^{\circ} 46' 08.160''\text{N}$, Longitude $079^{\circ} 52' 44.611''\text{W}$ on NOS Chart 11524, 51st edition was not fully developed during the survey; therefore, it cannot be disproved and should be retained as charted.

e. The Submerged piles in Latitude $32^{\circ} 46' 20.652''\text{N}$, Longitude $079^{\circ} 54' 40.700''\text{W}$; $32^{\circ} 46' 28.730''\text{N}$, $079^{\circ} 54' 17.019''\text{W}$; $32^{\circ} 46' 51.144''\text{N}$, $079^{\circ} 54' 13.383''\text{W}$; $32^{\circ} 47' 01.377''\text{N}$, $079^{\circ} 54' 34.089''\text{W}$; and $32^{\circ} 48' 53.630''\text{N}$, $079^{\circ} 55' 36.831''\text{W}$ on NOS Chart 11524, 51st edition was unable to be disproved due to the lack of side scan imagery or SBES development within these particular area, and they are to be retained as charted.

f. The four Dolphins charted within the area of Latitude $32^{\circ} 46' 37.141''\text{N}$, Longitude $079^{\circ} 57' 15.865''\text{W}$ on NOS Chart 11524, 51st edition as not fully developed

and it is difficult to distinguish the features within the survey's side scan imagery, therefore, retain Dolphins as charted.

g. The two Dolphins charted within the area of Latitude 32° 47' 29.899"N, Longitude 079° 55' 30.200"W on NOS Chart 11524, 51st edition as not fully developed and it is difficult to distinguish the features within the survey's side scan imagery, therefore, retain Dolphins as charted.

D.2. ADDITIONAL RESULTS

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
H11861

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 disproof 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 review per the Hydrographic surveys Division Office Processing Manual and are verified to be accurate and complete except where noted.

Casie D. Carrott
Hydrographic Intern
Atlantic Hydrographic Branch

I have reviewed the Base 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