

H12266

NOAA FORM 76-35A

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

DESCRIPTIVE REPORT

Type of Survey Hydrographic Survey

Field No. N/A

Registry No. H12266

LOCALITY

State North Carolina

General Locality Morehead City

Sublocality Morehead City to Beaufort Inlet

2010

CHIEF OF PARTY

Robert W. Ramsey Jr. - Team Leader

LIBRARY & ARCHIVES

DATE

<p style="text-align: center;">U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION</p> <p style="text-align: center;">HYDROGRAPHIC TITLE SHEET</p>	<p>REGISTRY No</p> <p style="text-align: center;">H12266</p>
<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.</p>	<p>FIELD No: N/A</p>
<p>State <u>North Carolina</u></p> <p>General Locality <u>Morehead City</u></p> <p>Sub-Locality <u>Morehead City to Beaufort Inlet</u></p> <p>Scale <u>1:7,500</u> Date of Survey <u>07/07/2010--09/15/2010</u></p> <p>Instructions dated <u>6/15/2010</u> Project No. <u>S-F901-NRT2-10</u></p> <p>Vessel <u>NOAA Launch 1210 (NRT2)</u></p> <hr/> <p>Chief of party <u>Robert W. Ramsey Jr. - Team Leader</u></p> <p>Surveyed by <u>RAINIER Personnel</u></p> <p>Soundings by <u>Robert Ramsey, Erik Anderson, James Kirkpatrick (NRT2)</u></p> <p>SAR by <u>Adam Argento</u> Compilation by <u>Annie Raymond</u></p> <p>Soundings compiled in <u>Feet</u></p>	
<p>REMARKS: <u>All times are UTC. UTM Zone 18N</u></p> <p><u>The purpose of this survey is to provide contemporary surveys to update National Ocean Service (NOS) nautical charts. All separates are filed with the hydrographic data. Revisions and end notes in red were generated during office processing. The processing branch concurs with all information and recommendations in the DR unless otherwise noted. Page numbering may be interrupted or non sequential.</u></p> <hr/> <p><u>All pertinent records for this survey, including the Descriptive Report, are archived at the National Geophysical Data Center (NGDC) and can be retrieved via http://www.ngdc.noaa.gov/.</u></p>	

DESCRIPTIVE REPORT

To accompany

S-F901-NRT2-10

**HYDROGRAPHIC SURVEY
H12266**

Scale of Survey: 1:7,500

Year of Survey: 2010

Navigation Response Team 2 - Launch 1210

Robert W. Ramsey Jr. - Team Leader

A. AREA SURVEYED

This hydrographic survey was conducted in accordance with Port Letter Instructions for project S-F901-NRT2-10, Morehead City, NC. The instructions are dated 15 June 2010.

Purpose

The Regional Navigation Manager has received requests for hydrographic survey in the area of Morehead City and Beaufort Inlet, NC. The most recent surveys conducted in the inlet were done in 1998, while the most recent surveys near Morehead City were done in 1974. Morehead City/Beaufort, NC is number 96 on the MTS 175 Ports list. It is the intent of this survey to supersede all bathymetry, seafloor features, and bottom characteristics within the assigned survey area as defined by these instructions for updating of NOAA charts 11547, 11541, 11545, and 11543.

Special Notes:

Contact with Mr. Mike Espey confirmed that RSD has a full photogrammetric project planned for the entire Core Sound area (see "Re: NC0902 Imagery" located in Appendices V¹).

Survey limits are displayed graphically in the Figure 1 below.

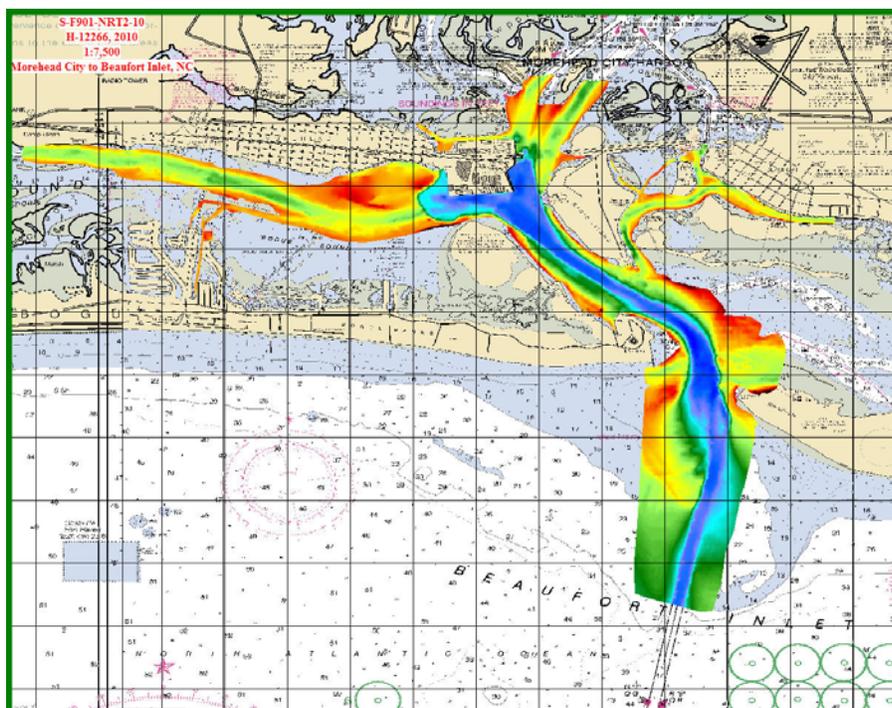


Figure 1: H12266 Survey Area

S-F901-NRT2-10 / H12266 / Sheet “B”

The following List contains Stats:

VBES only= 187 LNM
 SSS only= 2 LNM
 VBES/SSS= 55 LNM
 X/L= 10 LNM²
 BS = 18
 Features= 368 (85GP, 55DP, 126sss, 87bathy, 15awois, & 18bs)
 Total= 257 LNM
 SNM= 3.77 SNM

Dates of Acquisition in 2010: JUL 7, 13, 14, 20, 21, 26-29, AUG 4,9,17,18,24,25, SEP 13 &15.

B. DATA ACQUISITION AND PROCESSING

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 (2010), located in O:\S-F901-NRT2-10\Data_Acquisition_&_Processing_Report\
Major data acquisition systems are summarized below.

NOAA launch 1210, a 30-foot SeaArk with a keel 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 EchotracCV2, 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.

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 Ver4 (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 Velocipy program supplied by the Hydrographic Systems and Technology Program (HSTP).

B.2. QUALITY CONTROL

Following the most recent Field Procedures Manual and the NOS Hydrographic Surveys Specifications and Deliverables Manual, April 2010 insured the integrity of the survey data for H12266.

Differential GPS (DGPS) was used for all hydrographic data acquired on this survey. DGPS performance checks were conducted in accordance with FPM 3.4 by comparing the DGPS position of the vessel to a high accuracy calibration point, cut in at the dock, each survey day.

Echo Sounder Control

No abnormalities were noted with the Sounding equipment during the course of this survey. Crosslines data agreed with that of the Mainscheme sounding data. The Check point summary can be found in” O:\H-12265\Descriptive Report\Separates\IV. Checkpoint_Summary_&_Crossline_Comparisons”.

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.

Coverage of 200% was obtained in the required survey areas³. The Towfish was deployed off the starboard quarter of the vessel, which proved very stable. 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, and normal vessel traffic, to determine if further investigations were needed. Mosaics were generated for 100% and 200% to insure complete coverage; these may be found in their respective Fieldsheet folders: O:\H-12266\Caris\Fieldsheets\H12266

The system frequencies used were 500 kHz. The recorder was set on 25/50 or 75 meter range scale, for higher confidence in detecting small contacts.

Junctions

There are no assigned survey junctions with this survey in the Project Letter.

B.3. CORRECTIONS TO ECHO SOUNDING

Velocipy SVP cast have been inserted into the final Pydro PSS as suggested in the Field Procedures Manual.

A copy of the Velocity DQA file is located in:

O:\S-F901-NRT2-10\H12266\Descriptive Report\Separates\II. Sound_Speed_Data.

The primary instrument for SVP cast (Digibar Pro) was checked with SBE 19 by performing dual SVP cast normally once a week, during survey acquisition, and a good zone comparison were obtained for all DQA's. Normally a practice of taking at least one SVP cast every day of data acquisition was adhered to.

There are no deviations to be discussed in this section.

B.4. DATA PROCESSING

There was one base surface created in Caris for the VBES data set. It was created at 3m resolution and Finalized (O:\H-12266\Caris\Fieldsheets\H12266\H12266_VBES3mbase). No BAGs were generated in the field, as per directions from OIC AHB.

Note: Below are two example query errors that are bogus. They are Caris sw error flags that are not correct and are scheduled to be repaired in release 7.1:

- H_12266 NRT2_1210_SB 2010-195 021_1317 some transducer depths are above water. (Error: 5016012)
- WARNING: H_12266 NRT2_1210_SB 2010-195 001_1340: Navigation data has not yet been examined. (Error: 5000058)

SSS geo-tiffs are located in Appendices III, and the 35cm Mosaics are located in the Caris Fieldsheets folder under their respective coverage. The 35cm Mosaics are higher resolution than required. This values represents the best obtainable with the Klein 3000.

There were some minor software issues with Pydro during the compilation of the reports, due to image sizes, that resulted in some image captures being flagged “Offline”. The file “Offline Images for ANTI-DTON.txt” located in “O:\H-12266\PSS” shows the location these images can be found. These images are related to those used in the Anti-DTON report. The procedure used to compile this report is briefly described below.

After all SSS records were scanned for significant contacts, and the resolution of these contacts were completed by development, the SSS mosaics were then opened in PYDRO for a final review of charted items that fell within the coverage, and that had no targets in the vicinity of these charted features. At this point chart “GP’s” were created over these features, and they were flagged for their disposition (remove, or modify).

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 Velocipy 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
S-F901-NRT2-2010 Beaufort Inlet and Approaches, NC
(03/11/2010 LH)

This is a Discrete Tidal Zoning 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 Verified for final data submission. All data had “Verified” tides applied prior to submission.

The operating National Water Level Observation Network (NWLON) stations at Beaufort, NC (8656483) and Wrightsville Beach, NC (8658163) serve as datum control for the survey area including determination at each subordinate station

Tide Component Error Estimation

The estimated tidal error contribution to the total survey error budget in the vicinity of Beaufort, NC is 0.16 meters at the 95% confidence level, and includes the estimated gauge measurement error, tidal datum computation error, and tidal zoning error. Based on this analysis no subordinate stations will be required. It should be noted that the tidal error component can be significantly greater than stated if a substantial meteorological event or condition should occur during time of Hydrography.

For Hydrography in this Project, the “F901NRT22010CORP_Rev.zdf” supplied in conjunction with the water level data from Section 1.4.1, was used as the discrete tidal zoning file. There are two gauges used during this survey, 8656483 and 8658163. The named *.tid files, and all *.dat water level files are included with this survey, and can be found in O:\S-F901-NRT2-10\H12266\Caris\Tide folder.

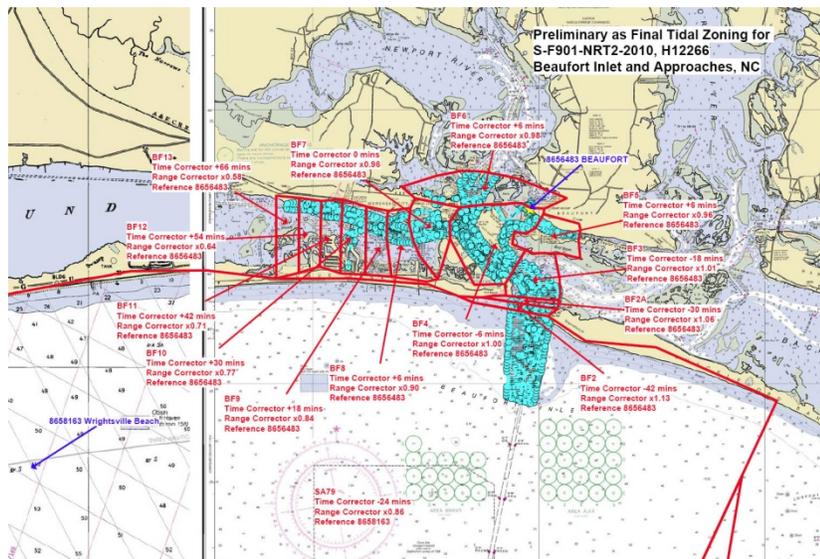


Figure 2: F901NRT22010CORP_Rev.zdf

All elevations and soundings on survey H12266 are based on MLLW unless otherwise specified.

A Request for Approved Tides letter was sent to Final.tides@noaa.gov, on 09/26/2010. This request was generated by PYDRO and can be found in O:\S-F901-NRT2-10\H12266\Descriptive Report\Appendices\IV. Tide_&_Water_Levels\Request_For_Tides. The final tides were approved on 10/07/2010, and all data for H12266 have had final tides applied to the PSS, then final merge was applied.⁴

Final Tide Approval uses tide stations to 8656483 and 8658163.

Horizontal Control

The horizontal datum used for this survey is the North American Datum of 1983 (NAD 83), projected using UTM zone 18N. The control reference station used for this survey was the USCG DGPS New Bern, NC. RTCM correctors were provided by direct link to the POS M/V system from this site.

New Bern, NC RBn Antenna Location: 35 10.50N, 077 02.92W REFSTA Ant Location (A):35 10.50874N, 077 03.00149W REFSTA Ant Location (B):35 10.49830N, 077 02.98893W REFSTA RTCM SC-104 ID (A):196 REFSTA RTCM SC-104 ID (B):197 Broadcast Site ID:771 Transmission Frequency:294 KHZ Transmission Rate:100 BPS Signal Strength:75uV at 259KM

Horizontal dilution of precision (HDOP) was monitored on Applanix POS MV System daily on the survey platform. Adequate satellite coverage was maintained throughout the survey period. All positioning equipment was operated in a manner consistent with the manufacturer's requirements and as described in the DAPR. There were no equipment malfunctions, which affected the positional quality of the data.

D. RESULTS AND RECOMMENDATIONS

D.1 Chart Comparison

This survey data acquired during H-12266 should supersede all charted data and features in the common area.⁵

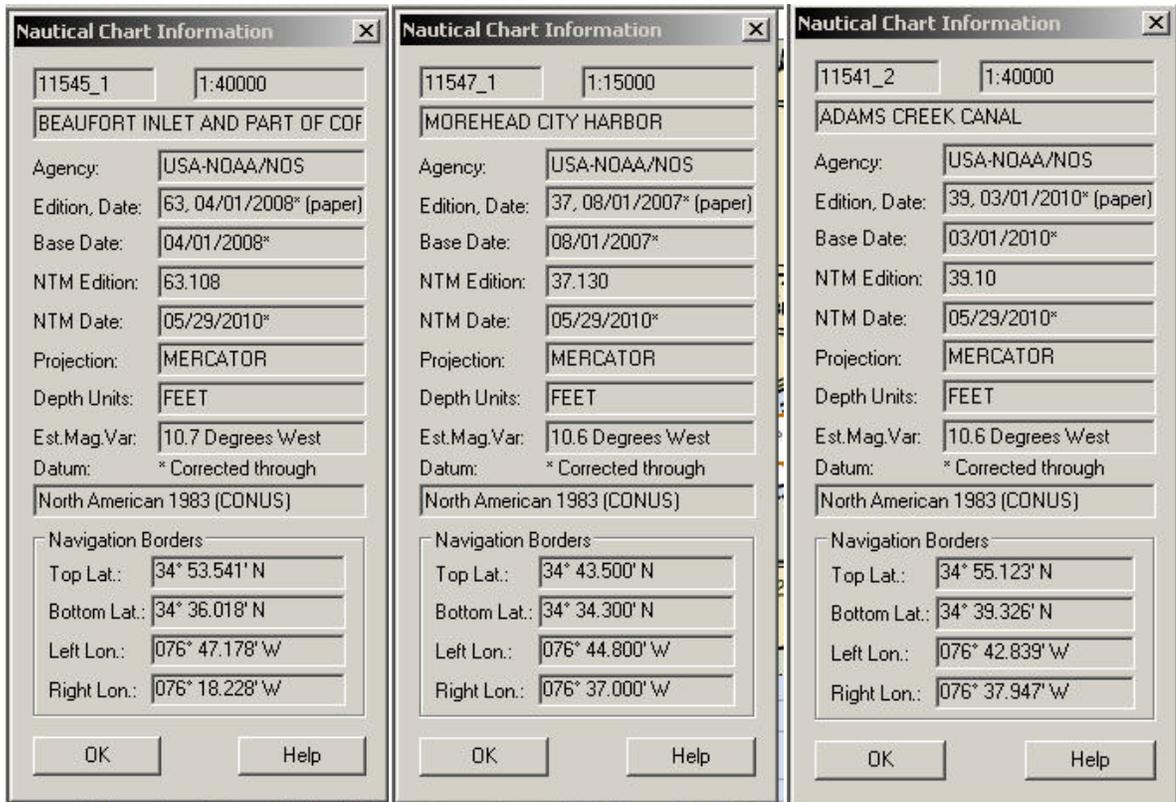
The Regional Navigation Manager has received requests for hydrographic survey in the area of Morehead City and Beaufort Inlet, NC. The most recent surveys conducted in the inlet were done in 1998, while the most recent surveys near Morehead City were done in 1974. Morehead City/Beaufort, NC is number 96 on the MTS 175 Ports list. It is the intent of this survey to supersede all bathymetry, seafloor features, and bottom characteristics within the assigned survey area as defined by these instructions for updating of NOAA charts 11547, 11541, 11545, and 11543.

Chart 11547 was used for comparison on this survey due to its scale and proximity of its region related to acquisition.

<u>Chart Number</u>	<u>Edition Date</u>	<u>Scale</u>
11541	39 th ED. 06/2010	1:40,000
11545	63 rd ED. 04/2008	1:40,000
11547	37 th ED. 08/2007	1:15,000

<u>ENC Cell</u>	<u>Edition</u>	<u>Update Application</u>	<u>Issue Date</u>	<u>Corresponding Chart</u>
US5NC17M	26 th	2010-04-03	2010-04-30	11547
US5NC18M	5 th	2010-06-01	2010-06-01	11545
US5NC51M	3 rd	2009-10-20	2010-04-12	11541

Below are the chart information tabs:



MOREHEAD CITY HARBOR CHANNEL DEPTHS TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF MAR 2010 AND SURVEYS TO MAR 2010								
CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)						PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (STAT. MILES)	DEPTH MLLW (FEET)
RANGE A	13.8	35.4	27.1	15.2	2-10	450-650	6.6	47
CUTOFF	50.4	42.8	8.2	3.8	2-10	600	0.7	45
RANGE B	31.3	38.7	48.3	46.9	2-10	400	1.3	45
RANGE C	46.1	44.5	43.7	43.1	3-10	1888	0.6	45
EAST LEG	41.2	43.6	43.5	38.6	3-10	455-880	0.3	45
WEST LEG	32.0	35.9	43.0	40.0	3-10	775	0.5	35
NORTHWEST LEG	29.8	34.5	36.0	29.8	3-10	120-1200	0.5	35

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

The currently charted channel limits for Range "A", and Cut-Off channel, have been temporarily redefined by USCG ATON's based on deep water. The USACOE advised that dredging operations will be conducted within the next few months (NOV/DEC 2010) in the main shipping channels listed in the Chart Tabulation Table. Therefore, no detailed analyses of channel depths were made in these channels.⁶

Secondary channel notes are listed below⁷:

- 13.5 ft. Sep. 2009 at 34°42'29.20"N 076°40'45.24"W is now 15 ft.
- 11.5 ft. Oct. 2008- Sep. 2009 34°42'52.17"N 076°40'26.70"W is now 14 ft.
- 8 ft. Jun. 2006-Sep. 2008 at 34°43'02.26"N 076°40'09.45"W is now 6 ft.
- 9.5 ft. Sep. 2008 at 34°42'51.78"N 076°39'49.18"W is now 11 ft.
- 9.5 ft. Oct. 2008 at 34°43'05.61"N 076°40'13.36"W is now 12 ft.
- An 8 ft. shoal has developed in the channel at 34°43'12.36"N 076°40'13.56"W
- 7 ft. Jun. 2006-Sep. 2008 at 34°42'50.53"N 076°39'51.04"W is confirmed
- 12 ft. 2006 at 34°42'47.35"N 076°41'24.35"W is confirmed
- 8 ft. Apr. 1995- Sep. 2009 at 34°43'22.68"N 076°41'59.26"W is now 11 ft.
- 5 ft. Rep. at 34°43'17.16"N 076°42'15.60"W is now 7 ft in a re-developed marina
- 6 ft. for width of 100 ft. Sep. 2009 at 34°43'08.59"N 076°42'27.34"W is now 11 ft.
- 4 ft. Sep. 2009 at 34°43'07.34"N 076°42'47.76"W is now 8 ft.
- 4 ft. for width of 75 ft. Sep. 2009 at 34°42'55.94"N 076°43'18.17"W is confirmed
- 3 ft. for width of 50 ft Jul. 2009 at 34°42'45.12"N 076°44'05.62"W is now 6 ft.

A chart letter was issued on 9/26/2010 outlining three major sounding and shoreline changes. This letter can be found in Appendices I.⁸

Special Note:

The currently listed Ranges in the Light List, do not match the currently charted channel names for major aids, the USCG Light List VOL II needs revisions, see below list ⁹:

<u>USCG Light List II name:</u>	<u>Charted Name:</u>
Beaufort Inlet CHN RNG	Range "A"
Fort Macon Reach RNG	Cutoff

Listed below are charted PA's, PD's, REP, ED: ¹⁰

- 4 charted piles PA at 34°41'32.79"N 076°39'48.23"W are located in 14 feet of water which was too shallow for SSS. Recommend charting Subm Piles PA.
- 4 Charted Dols PA at 34°41'55.04"N 076°40'56.16"W were disproven by 200% SSS.
- 9 charted Subm Pipes ED located in the vicinity of 34°42'20.16"N 076°40'43.78"W were disproven by 200% SSS. ¹¹
- Piles Rep at 34°42'51.22"N 076°40'41.96"W were disproven by 200% SSS. ¹²
- Piles PA at 34°42'55.98"N 076°41'27.20"W were identified visually as mooring Dols
- Piles PA at 34°43'02.28"N 076°41'25.90"W could not be visually identified. ¹³
- Obstn PA at 34°43'22.98"N 076°42'07.34"W was located at 34°43'22.74"N 076°42'09.29"W least depth 8 ft. ¹⁴
- 5 ft. Rep. 1983 at 34°43'02.88"N 076°44'14.62"W was disproven by 100% SSS, currently 16 ft.
- Sign PA at 34°43'05.25"N 076°44'30.03"W could not be visually identified. ¹⁵
- Pile PA at 34°43'06.67"N 076°44'36.45"W could not be visually identified. ¹⁶
- Subm Dols PA at 34°43'11.60"N 076°44'55.46"W were located by 200% SSS and Least Depths were created over contacts.

General Agreement with Charted soundings

In general, survey soundings do not agree well with those currently charted. All charted soundings should be superseded by this survey. ¹⁷ Depth variances from those currently charted range from 3 to 20 feet in many areas.

AWOIS Item Investigations

There were 10 AWOIS items assigned within the confines of H12266. Detailed point feature information can be found "H12266 Survey Features Report.pdf" located in O:\S-F901-NRT2-10\H12266\Descriptive Report\Appendices\II. Survey_Feature_Report*.

<u>AWOIS#</u>	<u>Search</u>	<u>Recommendation</u>
10257	SSS	Remove
14633	SSS	Remove
14632	SSS	Remove
14634	SSS	Remove
14635	SSS	Remove ¹⁸
14636	SSS	Remove
14637	SSS	Remove
14638	SSS	Remove
14639	VIS	Remove
14640	SSS	Modify

An updated section of the AWOIS data base was exported from Pydro, and can be found at O:\H-12266\PSS\Awois_Update_H12266.mdb.

Dangers to Navigation

There were 54 DTON's within the confines of H12266, submitted by the field.¹⁹

DTON Submission Information		
Date/Time Submitted	DTON Count	Exported as
Tue Jul 13 15:09:58 2010	11	P:\Caris Net Active Projects\S-F901-NRT2-10\H-12266\Descriptive Report\Appendices\I. DTON_Reports\test.xml
Thu Sep 23 15:09:26 2010	8	P:\Caris Net Active Projects\S-F901-NRT2-10\H-12266\Descriptive Report\Appendices\I. DTON_Reports\H12266_DT0N09232010.xml
Mon Sep 27 15:08:00 2010	35	P:\Caris Net Active Projects\S-F901-NRT2-10\H-12266\Descriptive Report\Appendices\I. DTON_Reports\H12266_Anti_DT0N09272010.xml

D. 2. ADDITIONAL RESULTS

Aids to Navigation and Other Detached Positions

There was one ATON Report generated for survey H12266. This report was submitted directly to MCD on 10/11/2010. Copy is provided for information only and can be found in the ATON folder under Appendices V.

There was an associated CEF component to this project. This report was submitted directly to RSD on 09/21/2010 and can be located on the data drive under the folder "S-F901-NRT2-10_CEF_Report", for information only.

Ferry Routes

There are no Ferry routes within the confines of H12266 currently charted. There are small shuttle operators, operating from both Morehead City and Beaufort waterfronts. These shuttle passengers via RIBS to and from various locations, notably to Shackelford Bank. Charting is not recommend, as they have no defined routes, or schedules.

Submarine Cables and Pipelines

There are 3 cable areas within H12266.²⁰

Bridges

There are 4 bridges within H-12266 limits.²¹

Bottom Samples

There were 18 bottom samples taken on H12266. These samples were acquired and compared to those on the chart. Most compared favorably to those charted, exceptions were flagged to be added.²²

Historic Wrecks

There were no historic wrecks confirmed by State Archaeologists on H12266. There was one wreck identified by NRT2 in this survey which was previously un-charted.²³ These features and information have not been released to the public, and can be found in the feature report located in Appendices II.²⁴

Special Notes:

The PSS contained on the drive with the survey data has been redirected to the portable drive. This PSS will open in its entirety directly from the drive. The PSS can be located at: O:\S-F901-NRT2-10\H12266\PSS. The final PSS submitted on the data drive has been verified free of all outdated and stale data.

A copy of both “XYZ” data and SSS contact data was provided to the local USACOE, as well as a briefing on conditions and notable features for them to address within the Federal channels. Contact Reginald.W.Adams2@usace.army.mil for information.

The Coast Pilot Report was sent to OCS.NDB@noaa.gov , on 10/11/2010 as per FPM 5.2.3.2.5

The survey outlines were sent to survey.outlines@noaa.gov on 09/26/2010 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 09/24/2010 as per FPM 5.2.3.3.6.

The Letter Transmitting data was sent via e-mail to LTDSUBMISSION.AHB@NOAA.GOV on 10/14/2010 as per FPM 5.2.5²⁵

E. APPROVAL SHEET

S-F901-NRT2-10

Morehead City, NC

Survey Registry No. H12266

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:

**Robert W.
Ramsey Jr**

Digitally signed by Robert W
Ramsey Jr
DN: cn=Robert W Ramsey Jr,
o=USDOC/NOAA/NOS/NRB,
ou=NRT-2, email=Robert.
Ramsey@NOAA.GOV, c=US
Date: 2010.10.14 13:47:39 Z

**Robert W. Ramsey Jr - Team Leader
Navigation Response Team 2**

¹ Appended to this report

² Crossline comprises 4% of mainscheme VBES.

³ 200% Side Scan Sonar coverage was not achieved for the entire survey area. Multiple M_QUAL areas with different CATZOCs were created in the HCell to differentiate areas with full coverage (200% Side Scan with single beam skunk striping) and areas without 200% Side Scan coverage.

⁴ See attached Tide Note.

⁵ Survey is adequate to supersede all charted soundings and features in areas with 200% side scan coverage. In areas with less than 200% side scan some charted features and soundings should be retained. Chart all soundings and features per HCell.

⁶ Chart channels in accordance with latest Army Corps of Engineers survey and reposition Aids to Navigation per the latest US Coast Guard Light List.

⁷ More current depths have already been applied to chart. Shoal soundings from the survey are located within Range A and Range B channels however more recent Army Corps of Engineers survey have been conducted and all channels should be charted in accordance with latest Army Corps of Engineers survey. See attached correspondence.

⁸ Correspondence attached. Shoreline between raster chart 11547 and ENC US5NC17M are not in agreement. Recommend updating shoreline per latest NSD shoreline.

⁹ Recommend ensuring all channel names on the chart are in agreement with names from US Coast Guard Light List and Army Corps of Engineers surveys. Chart all Aids to Navigation in accordance with latest US Coast Guard Light List.

¹⁰ Chart features per HCell.

¹¹ Eleven DOLs in this vicinity were reported for removal via attached Anti-DTON report however office does not concur with recommendation to remove DOL located at 34° 42' 21.9" N, 076° 40' 45.9" W as no side scan coverage over item was achieved. Recommend removing 10 DOLs in the vicinity. Chart per HCell.

¹² Do not concur. 200% Side scan not obtained over feature, recommend retaining as charted.

¹³ Retain as charted.

¹⁴ A shoaler obstruction located during office review at 34-43-22.691N 76-42-09.910W, least depth of 7.615ft. Chart per HCell.

¹⁵ Retain as charted.

¹⁶ Retain as charted.

¹⁷ Survey is adequate to supersede all charted soundings and features in areas with 200% side scan coverage. In areas with less than 200% side scan some charted features and soundings should be retained. Chart all soundings and features per HCell.

¹⁸ Do not concur. No evidence of wreck, but SSS only covers partial radius. Retain as charted.

¹⁹ Office notes included in attached DTON reports. Chart all features per HCell.

²⁰ Five Cable areas are located within survey bounds. Retain as charted.

²¹ Four bridges are located with survey bounds. Charted location of bridges and abutments appear offset from survey data and satellite images, recommend updating chart in accordance with latest RSD shoreline or other source data.

²² Some bottom samples were taken within charted channels. Nine bottom samples were selected for charting. Chart per HCell.

²³ Do not concur. Three wrecks submitted in feature file and report were all AWOIS items. See appended AWOIS report. Chart per HCell.

²⁴ The Survey Feature Report is filed with the hydrographic records. Note: the survey feature report does not include all features from H12266. Additional features were added, some removed, and some modified during branch processing after the feature report was generated from Pydro. Chart all features per HCell.

²⁵ The data was transferred from AHB to PHB for survey review and compilation.

S-F901-NRT2-10 // H-12266 DTON RPT 09232010

Registry Number: H-12266
State: North Carolina
Locality: Morehead City , NC
Sub-locality: Morehead City to Beaufort Inlet
Project Number: S-F901-NRT2-10
Survey Dates: 09/13/2010 - 09/15/2010

DTON report on Soundings, and obstn's. This is the second DTON report for H-12266.

Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
11547	37th	08/01/2007	1:15,000 (11547_1)	USCG LNM: 05/04/2010 (05/25/2010) NGA NTM: 07/20/2002 (05/29/2010)
11541	39th	03/01/2010	1:40,000 (11541_3)	USCG LNM: 05/04/2010 (05/25/2010) NGA NTM: None (05/29/2010)
11541	39th	03/01/2010	1:40,000 (11541_2)	USCG LNM: 05/04/2010 (05/25/2010) NGA NTM: 09/01/2001 (05/29/2010)
11545	63rd	04/01/2008	1:40,000 (11545_1)	USCG LNM: 05/04/2010 (05/25/2010) NGA NTM: 07/20/2002 (05/29/2010)
11544	39th	07/01/2005	1:80,000 (11544_1)	USCG LNM: 05/04/2010 (05/25/2010) NGA NTM: 07/20/2002 (05/29/2010)
11543	23rd	06/01/2005	1:80,000 (11543_1)	USCG LNM: 05/04/2010 (05/25/2010) NGA NTM: 05/23/2009 (05/29/2010)
11520	43rd	10/01/2008	1:432,720 (11520_1)	[L]NTM: ?
11009	38th	12/01/2006	1:1,200,000 (11009_1)	[L]NTM: ?
13003	49th	04/01/2007	1:1,200,000 (13003_1)	[L]NTM: ?

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

Features

No.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	146/1 Subm Pile 14ft @ mllw	Obstruction	4.47 m	34° 43' 12.6" N	076° 45' 04.4" W	---
1.2	147/1 Sounding 9ft @ mllw	Shoal	2.69 m	34° 43' 16.0" N	076° 44' 58.8" W	---
1.3	568/1 Subm Pile 11ft @ mllw	Obstruction	3.48 m	34° 43' 13.1" N	076° 45' 26.8" W	---
1.4	573/1 Obstn 7ft @ mllw	Obstruction	2.30 m	34° 42' 15.3" N	076° 40' 38.7" W	---

1.5	326/1 Obstn 14ft @ mllw	Obstruction	4.31 m	34° 43' 04.6" N	076° 44' 12.1" W	---
1.6	170/1 Obstn 15ft @ mllw	Obstruction	4.59 m	34° 43' 06.0" N	076° 44' 11.7" W	---
1.7	47/1 Subm Pile 12ft @ mllw	Obstruction	3.80 m	34° 42' 57.9" N	076° 43' 53.9" W	---
1.8	178/1 Subm Pile 15ft @ mllw	Obstruction	4.56 m	34° 43' 11.6" N	076° 44' 38.9" W	---

1 - Danger To Navigation

1.1) 146/1 Subm Pile 14ft @ mllw**DANGER TO NAVIGATION****Survey Summary**

Survey Position: 34° 43' 12.6" N, 076° 45' 04.4" W
Least Depth: 4.47 m (= 14.66 ft = 2.443 fm = 2 fm 2.66 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** ± 1.964 m ; **TVU (TPEv)** ± 0.205 m
Timestamp: 2010-258.13:14:51.543 (09/15/2010)
Survey Line: h_12266 / nrt2_1210_sb / 2010-258 / 152_1314
Profile/Beam: 146/1
Charts Affected: 11541_3, 11545_1, 11543_1, 11520_1, 11009_1

Remarks:

Located subm Pile broken off with vertical projection.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h_12266/nrt2_1210_sb/2010-258/152_1314	146/1	0.00	000.0	Primary
h_12266/nrt2_1210_klein3000hf_200sss/2010-256/sss100913130500	0002	4.51	336.7	Secondary

Hydrographer Recommendations

Chart subm pile

Cartographically-Rounded Depth (Affected Charts):

14ft (11541_3, 11545_1, 11543_1)

2 ½fm (11520_1, 11009_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)
Attributes: CATOBS - 1:snag / stump
 CONDTN - 2:ruined
 QUASOU - 1:depth known
 SORDAT - 20100915

SORIND - US,US,Survy,H12266

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

VALSOU - 4.468 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Note: Concur, recommend charting as part of obstruction area.

Feature Images

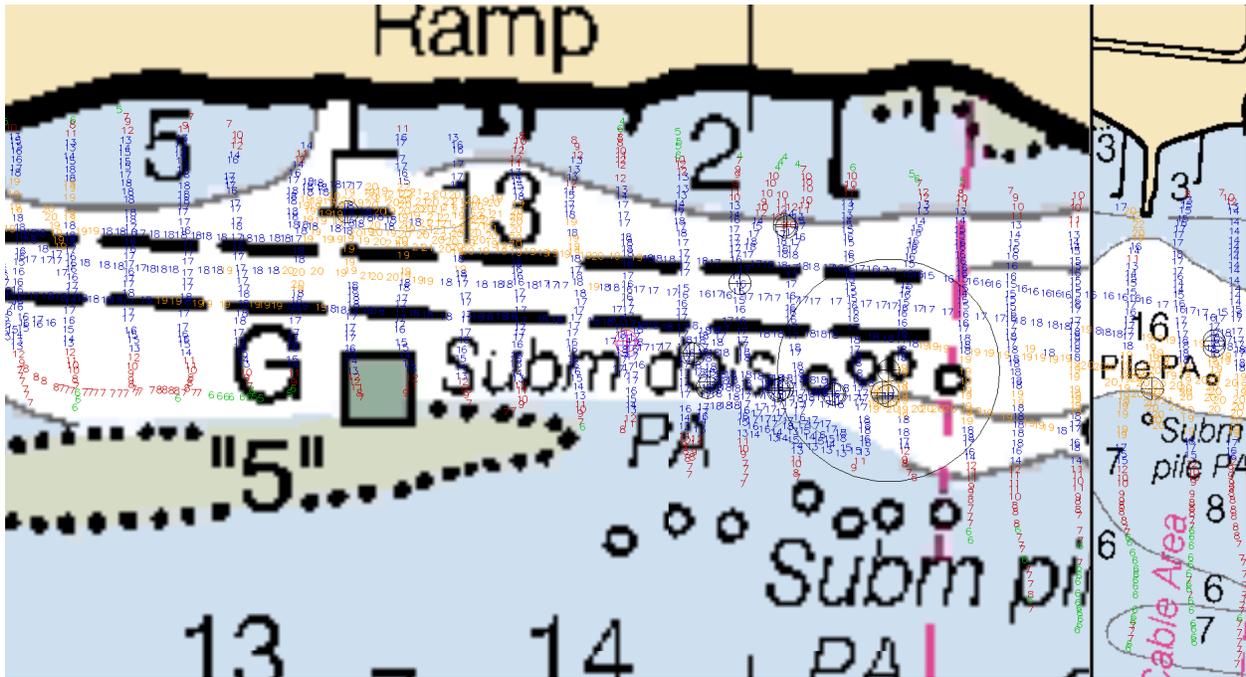


Figure 1.1.1

[Unable to convert image file P:/Caris Net Active Projects/S-F901-NRT2-10/H-12266/Caris/HDCS_Data/H_12266/NRT2_1210_Klein3000HF_200sss/2010-256/sss100913130500/sss1 to JPEG.]

1.2) 147/1 Sounding 9ft @ mllw**DANGER TO NAVIGATION****Survey Summary**

Survey Position: 34° 43' 16.0" N, 076° 44' 58.8" W
Least Depth: 2.69 m (= 8.84 ft = 1.473 fm = 1 fm 2.84 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** ± 1.963 m ; **TVU (TPEv)** ± 0.204 m
Timestamp: 2010-258.14:07:09.774 (09/15/2010)
Survey Line: h_12266 / nrt2_1210_sb / 2010-258 / 120_1407
Profile/Beam: 147/1
Charts Affected: 11541_3, 11545_1, 11543_1, 11520_1, 11009_1

Remarks:

Located large natural mound, seaward of the 12ft contour.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h_12266/nrt2_1210_sb/2010-258/120_1407	147/1	0.00	000.0	Primary
h_12266/nrt2_1210_klein3000hf_200sss/2010-256/sss100913121600	0009	2.51	313.7	Secondary

Hydrographer Recommendations

Chart Sounding.

Cartographically-Rounded Depth (Affected Charts):

9ft (11541_3, 11545_1, 11543_1)

1 ½fm (11520_1, 11009_1)

S-57 Data

Geo object 1: Sounding (SOUNDG)
Attributes: EXPSOU - 2:shoaler than range of depth of the surrounding depth area
 QUASOU - 1:depth known
 SORDAT - 20100915
 SORIND - US,US,Survey,H12266

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

VERDAT - 12:Mean lower low water

Office Note: Concur with hydrographer recommendations.

Feature Images

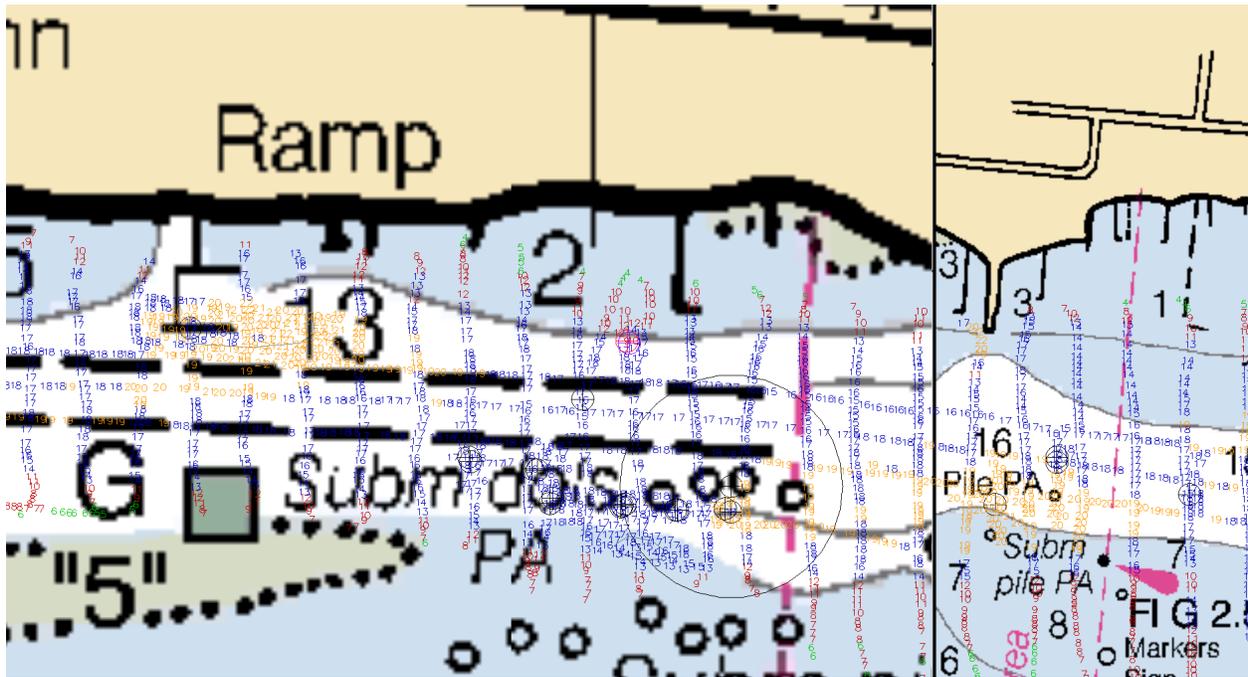


Figure 1.2.1

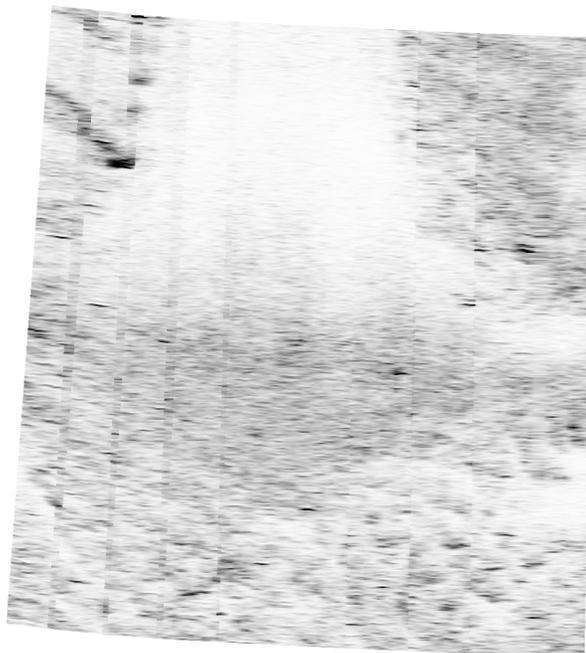


Figure 1.2.2

1.3) 568/1 Subm Pile 11ft @ mllw**DANGER TO NAVIGATION****Survey Summary**

Survey Position: 34° 43' 13.1" N, 076° 45' 26.8" W
Least Depth: 3.48 m (= 11.40 ft = 1.900 fm = 1 fm 5.40 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** ± 1.962 m ; **TVU (TPEv)** ± 0.204 m
Timestamp: 2010-258.12:35:36.144 (09/15/2010)
Survey Line: h_12266 / nrt2_1210_sb / 2010-258 / 174_1235
Profile/Beam: 568/1
Charts Affected: 11541_3, 11545_1, 11543_1, 11520_1, 11009_1

Remarks:

200% SSS located broken off pile. Development verified pile.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h_12266/nrt2_1210_sb/2010-258/174_1235	568/1	0.00	000.0	Primary
h_12266/nrt2_1210_klein3000hf_200sss/2010-256/sss100913130500	0001	1.31	225.9	Secondary

Hydrographer Recommendations

Chart subm pile

Cartographically-Rounded Depth (Affected Charts):

11ft (11541_3, 11545_1, 11543_1)

1 $\frac{3}{4}$ fm (11520_1, 11009_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)
Attributes: CATOBS - 1:snag / stump
 CONDTN - 2:ruined
 QUASOU - 1:depth known
 SORDAT - 20100915

SORIND - US,US,Survy,H12266

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

VALSOU - 3.475 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Note: Concur with hydrographer recommendations.

Feature Images

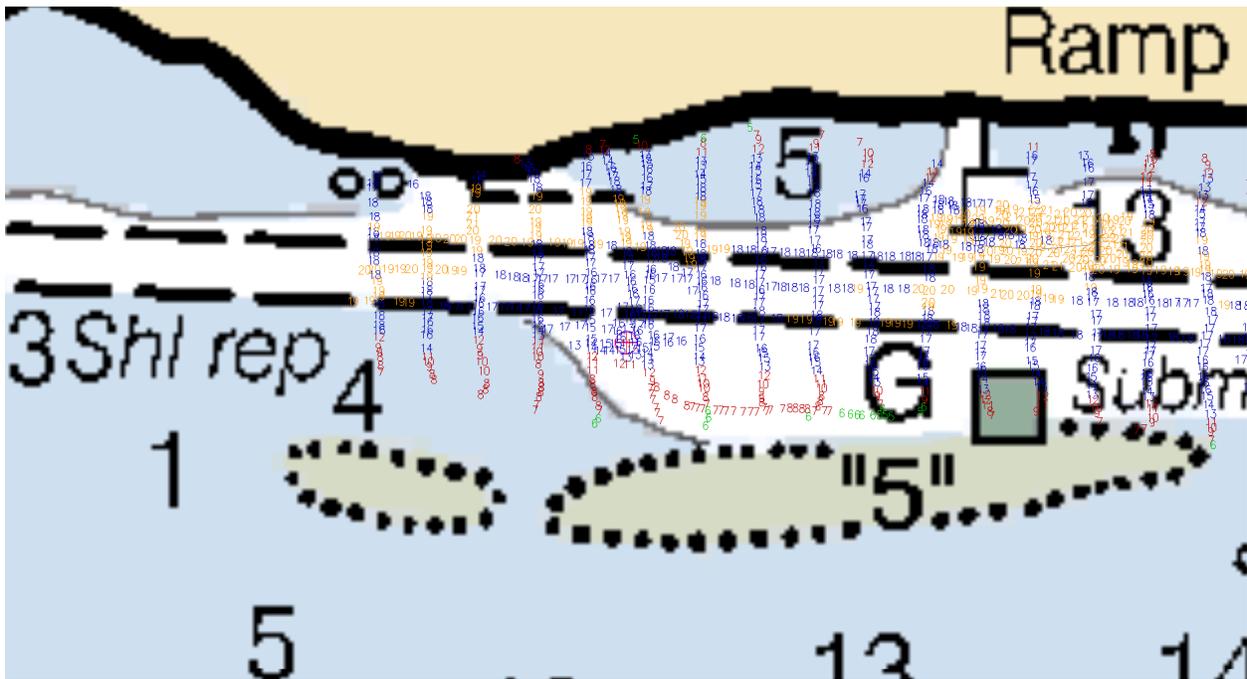


Figure 1.3.1

[Unable to convert image file P:/Caris Net Active Projects/S-F901-NRT2-10/H-12266/Caris/HDCS_Data/H_12266/NRT2_1210_Klein3000HF_200sss/2010-256/sss100913130500/sss1 to JPEG.]

1.4) 573/1 Obstrn 7ft @ mllw**DANGER TO NAVIGATION****Survey Summary**

Survey Position: 34° 42' 15.3" N, 076° 40' 38.7" W
Least Depth: 2.30 m (= 7.55 ft = 1.259 fm = 1 fm 1.55 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** ± 1.962 m ; **TVU (TPEv)** ± 0.204 m
Timestamp: 2010-256.17:53:17.862 (09/13/2010)
Survey Line: h_12266 / nrt2_1210_sb / 2010-256 / 027_1752
Profile/Beam: 573/1
Charts Affected: 11547_1, 11541_2, 11545_1, 11543_1, 11544_1, 11520_1, 11009_1, 13003_1

Remarks:

Located obstrn on channel edge in proximity of R2

Feature Correlation

Address	Feature	Range	Azimuth	Status
h_12266/nrt2_1210_sb/2010-256/027_1752	573/1	0.00	000.0	Primary
h_12266/nrt2_1210_klein3000hf_200sss/2010-229/sss100817115900	0001	2.79	104.5	Secondary

Hydrographer Recommendations

Chart obstrn

Cartographically-Rounded Depth (Affected Charts):

7ft (11547_1, 11541_2, 11545_1, 11543_1, 11544_1)

1 ¼fm (11520_1, 11009_1, 13003_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)
Attributes: CATOBS - 1:snag / stump
 QUASOU - 1:depth known
 SORDAT - 20100913
 SORIND - US,US,Survy,H12266

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

VALSOU - 2.302 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Note. Shoaler 7.119ft sounding located at 34-42-15.212N 076-40-38.334. Chart obstruction at new position and depth per H12266_CS.000.

Feature Images

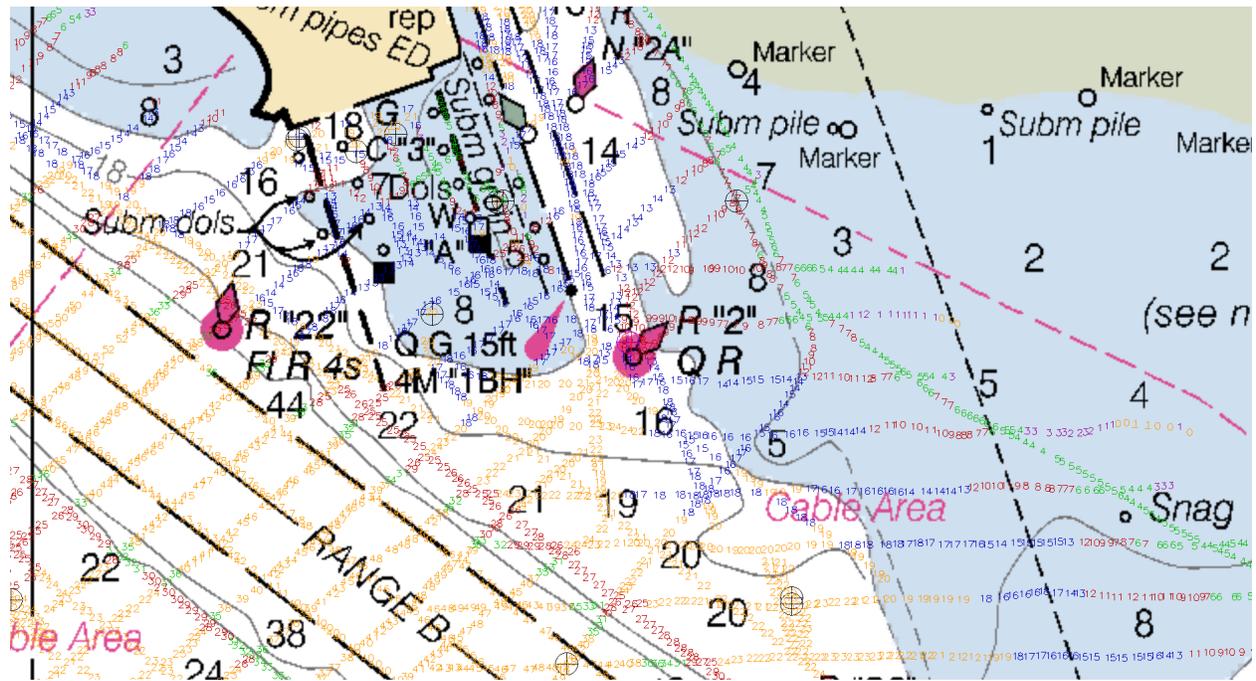


Figure 1.4.1

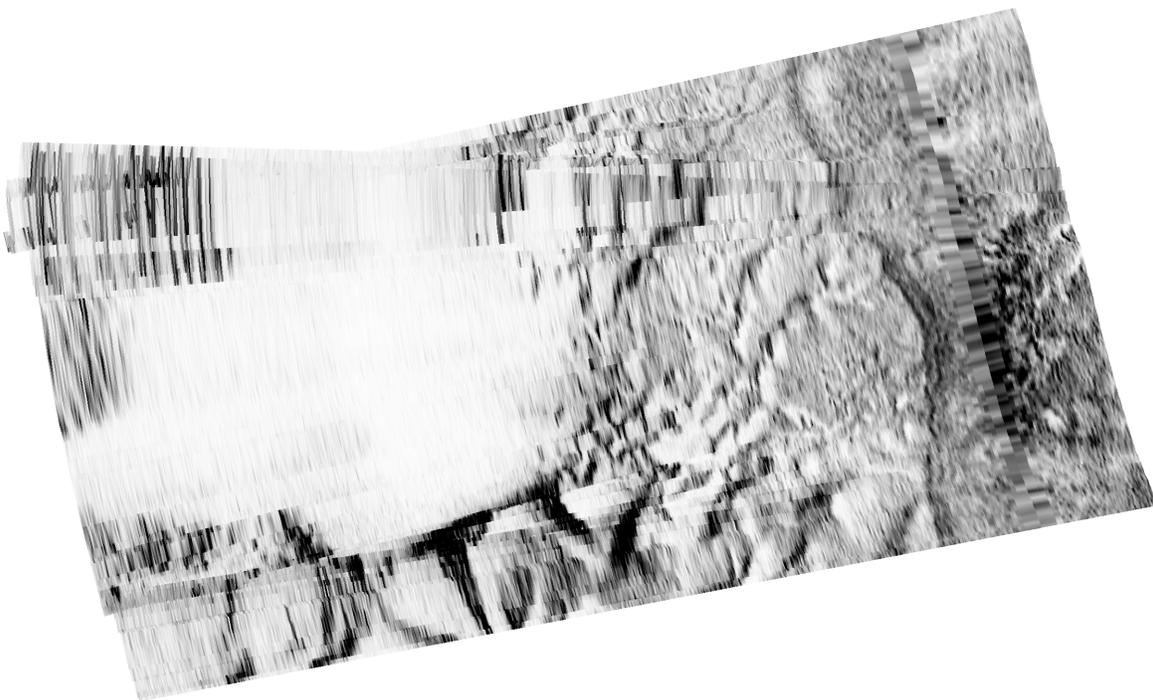


Figure 1.4.2

1.5) 326/1 Obstn 14ft @ mllw**DANGER TO NAVIGATION****Survey Summary**

Survey Position: 34° 43' 04.6" N, 076° 44' 12.1" W
Least Depth: 4.31 m (= 14.15 ft = 2.359 fm = 2 fm 2.15 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** ± 1.964 m ; **TVU (TPEv)** ± 0.205 m
Timestamp: 2010-258.15:17:53.814 (09/15/2010)
Survey Line: h_12266 / nrt2_1210_sb / 2010-258 / 070_1517
Profile/Beam: 326/1
Charts Affected: 11547_1, 11541_3, 11545_1, 11543_1, 11520_1, 11009_1

Remarks:

Apparent ruins from old Power line towers.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h_12266/nrt2_1210_sb/2010-258/070_1517	326/1	0.00	000.0	Primary
h_12266/nrt2_1210_klein3000hf_200sss/2010-256/sss100913132300	0006	1.25	334.8	Secondary
h_12266/nrt2_1210_klein3000hf_100sss/2010-256/sss100913135800	0003	2.48	146.4	Secondary
h_12266/nrt2_1210_klein3000hf_200sss/2010-256/sss100913121600	0005	2.49	220.5	Secondary

Hydrographer Recommendations

Chart obstn

Cartographically-Rounded Depth (Affected Charts):

14ft (11547_1, 11541_3, 11545_1, 11543_1)

2 ¼fm (11520_1, 11009_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)
Attributes: CATOBS - 1:snag / stump
 CONDTN - 2:ruined

QUASOU - 1:depth known

SORDAT - 20100915

SORIND - US,US,Survy,H12266

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

VALSOU - 4.314 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Note: Concur with hydrographer recommendations.

Feature Images

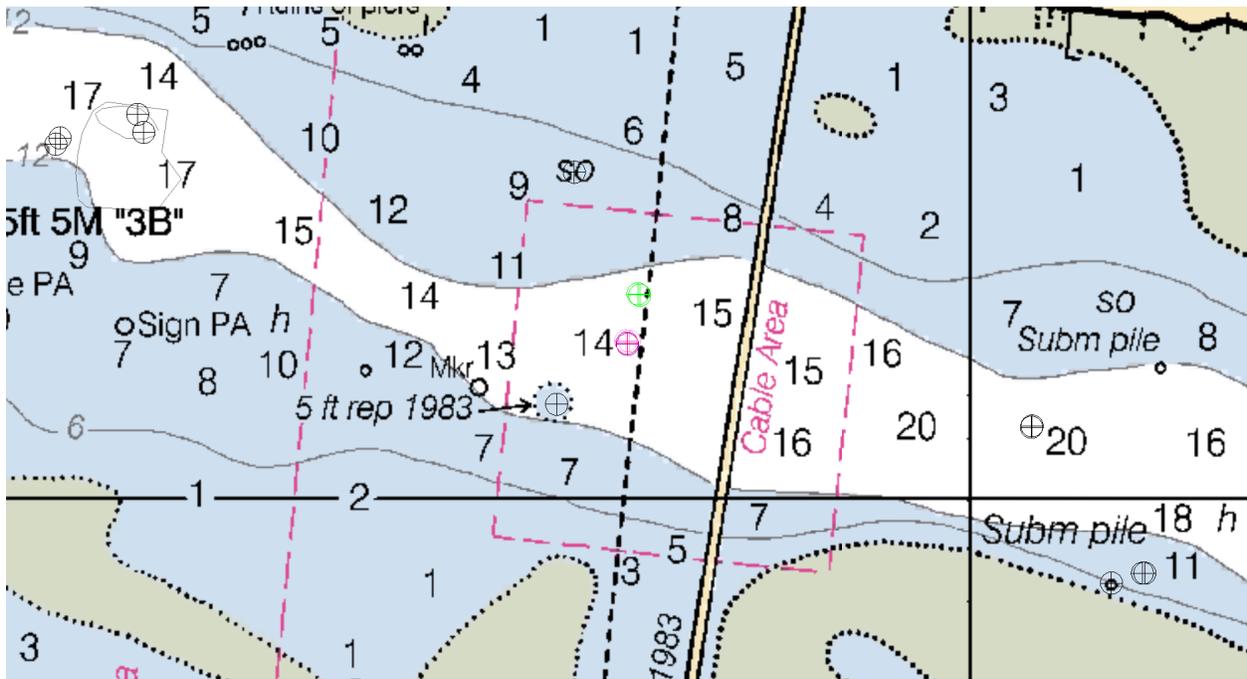


Figure 1.5.1

[Unable to convert image file P:/Caris Net Active
Projects/S-F901-NRT2-10/H-12266/Caris/HDCS_Data/H_12266/NRT2_1210_Klein3000HF_200sss/2010-256/sss100913132300/sss1
to JPEG.]

1.6) 170/1 Obstrn 15ft @ mllw**DANGER TO NAVIGATION****Survey Summary**

Survey Position: 34° 43' 06.0" N, 076° 44' 11.7" W
Least Depth: 4.59 m (= 15.05 ft = 2.509 fm = 2 fm 3.05 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** ± 1.965 m ; **TVU (TPEv)** ± 0.206 m
Timestamp: 2010-258.15:08:37.555 (09/15/2010)
Survey Line: h_12266 / nrt2_1210_sb / 2010-258 / 079_1508
Profile/Beam: 170/1
Charts Affected: 11547_1, 11541_3, 11545_1, 11543_1, 11520_1, 11009_1

Remarks:

Identified ruins of old power pole supports most likely.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h_12266/nrt2_1210_sb/2010-258/079_1508	170/1	0.00	000.0	Primary
h_12266/nrt2_1210_klein3000hf_200sss/2010-256/sss100913121600	0006	2.04	139.0	Secondary

Hydrographer Recommendations

Chart Obstrn

Cartographically-Rounded Depth (Affected Charts):

15ft (11547_1, 11541_3, 11545_1, 11543_1)

2 ½fm (11520_1, 11009_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)
Attributes: CATOBS - 1:snag / stump
 CONDTN - 2:ruined
 QUASOU - 1:depth known
 SORDAT - 20100915

SORIND - US,US,Survy,H12266

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

VALSOU - 4.588 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Note: Concur with hydrographer recommendations.

Feature Images

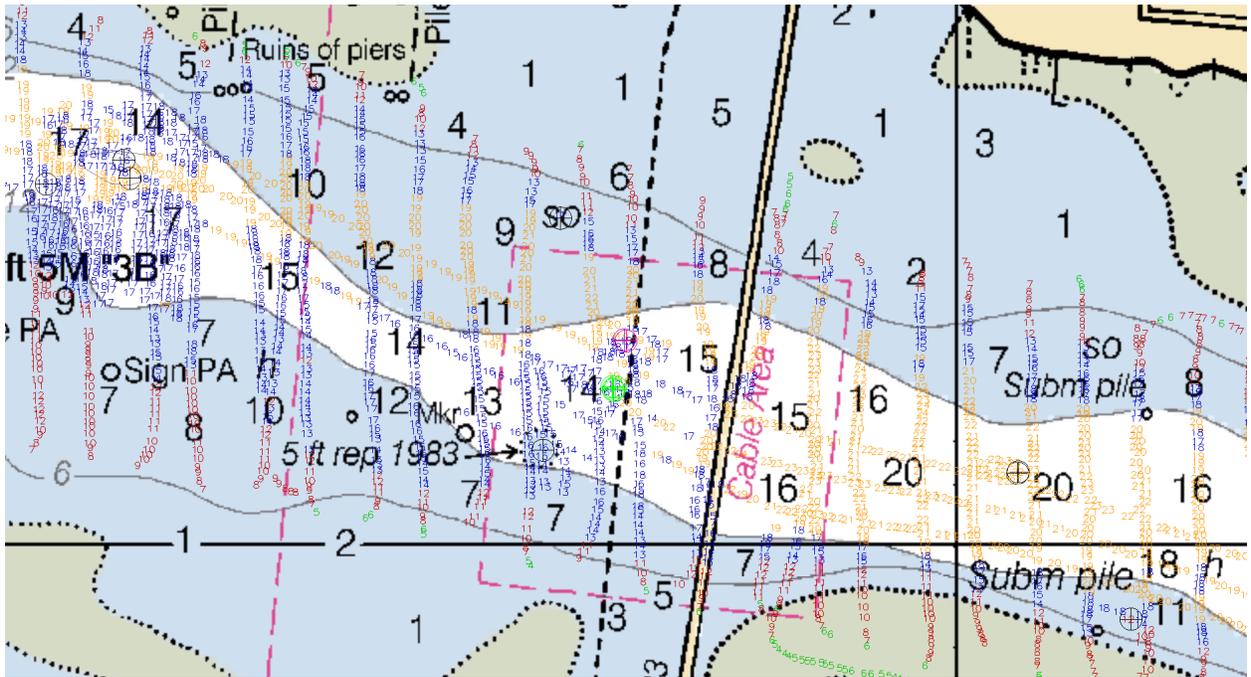


Figure 1.6.1

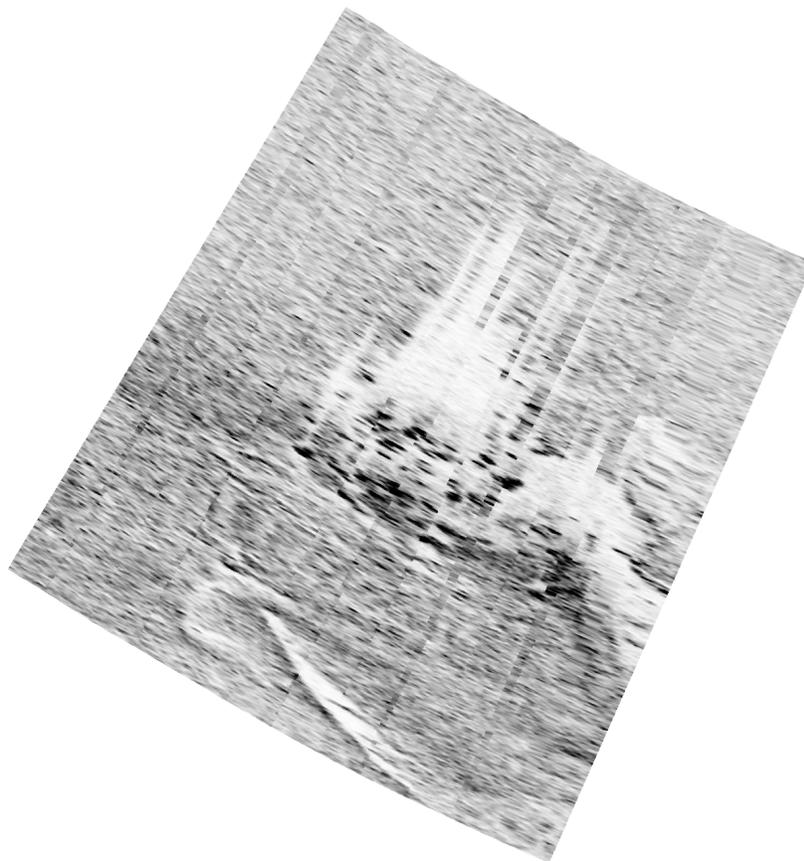


Figure 1.6.2

1.7) 47/1 Subm Pile 12ft @ mllw**DANGER TO NAVIGATION****Survey Summary**

Survey Position: 34° 42' 57.9" N, 076° 43' 53.9" W
Least Depth: 3.80 m (= 12.47 ft = 2.078 fm = 2 fm 0.47 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** ± 1.963 m ; **TVU (TPEv)** ± 0.205 m
Timestamp: 2010-258.15:41:03.894 (09/15/2010)
Survey Line: h_12266 / nrt2_1210_sb / 2010-258 / 056_1541
Profile/Beam: 47/1
Charts Affected: 11547_1, 11541_3, 11545_1, 11543_1, 11520_1, 11009_1

Remarks:

Located charted Subm Pile, although position is miss charted.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h_12266/nrt2_1210_sb/2010-258/056_1541	47/1	0.00	000.0	Primary
h_12266/nrt2_1210_klein3000hf_200sss/2010-256/sss100913132300	0007	2.52	262.3	Secondary
ChartGPs - Digitized	2	28.80	072.4	Secondary (grouped)

Hydrographer Recommendations

Adjust position of charted subm pile.

Cartographically-Rounded Depth (Affected Charts):

12ft (11547_1, 11541_3, 11545_1, 11543_1)

2fm (11520_1, 11009_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)
Attributes: CATOBS - 1:snag / stump
 CONDTN - 2:ruined
 QUASOU - 1:depth known

SORDAT - 20100915

SORIND - US,US,Survy,H12266

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

VALSOU - 3.800 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Note: Concur with hydrographer recommendations.

Feature Images

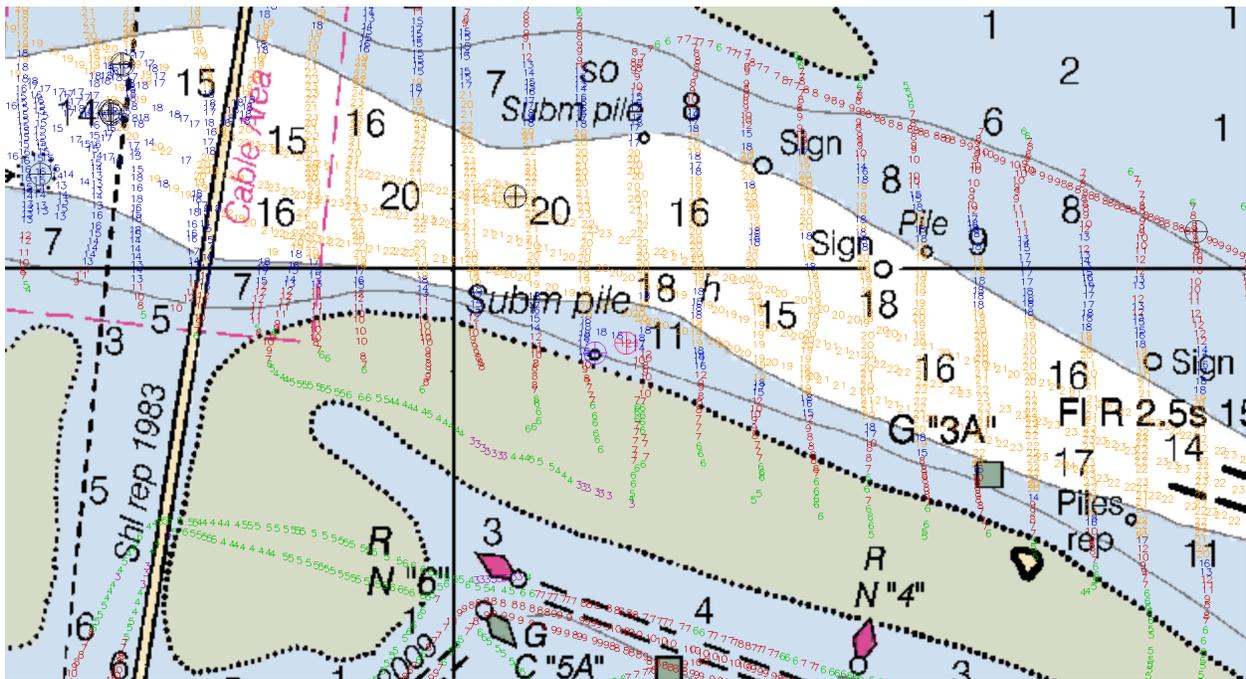


Figure 1.7.1

[Unable to convert image file P:/Caris Net Active Projects/S-F901-NRT2-10/H-12266/Caris/HDCS_Data/H_12266/NRT2_1210_Klein3000HF_200sss/2010-256/sss100913132300/sss1 to JPEG.]

1.8) 178/1 Subm Pile 15ft @ mllw**DANGER TO NAVIGATION****Survey Summary**

Survey Position: 34° 43' 11.6" N, 076° 44' 38.9" W
Least Depth: 4.56 m (= 14.97 ft = 2.496 fm = 2 fm 2.97 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** ± 1.963 m ; **TVU (TPEv)** ± 0.206 m
Timestamp: 2010-258.14:31:00.022 (09/15/2010)
Survey Line: h_12266 / nrt2_1210_sb / 2010-258 / 100_1430
Profile/Beam: 178/1
Charts Affected: 11547_1, 11541_3, 11545_1, 11543_1, 11520_1, 11009_1

Remarks:

located broken off subm pile.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h_12266/nrt2_1210_sb/2010-258/100_1430	178/1	0.00	000.0	Primary
h_12266/nrt2_1210_klein3000hf_200sss/2010-256/sss100913132300	0003	2.12	301.3	Secondary

Hydrographer Recommendations

Chart subm pile

Cartographically-Rounded Depth (Affected Charts):

15ft (11547_1, 11541_3, 11545_1, 11543_1)

2 ½fm (11520_1, 11009_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)
Attributes: CATOBS - 1:snag / stump
 CONDTN - 2:ruined
 QUASOU - 1:depth known
 SORDAT - 20100915

SORIND - US,US,Survy,H12266

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

VALSOU - 4.564 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Note: Concur with hydrographer recommendations.

Feature Images

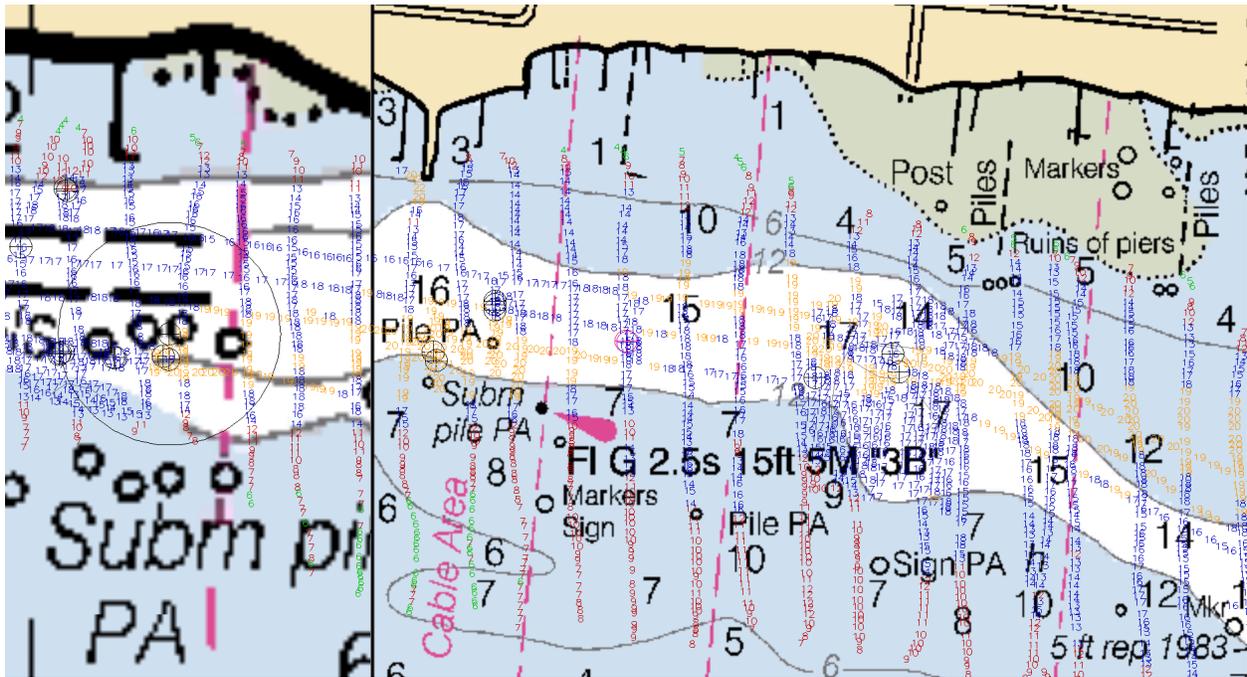


Figure 1.8.1

[Unable to convert image file P:/Caris Net Active Projects/S-F901-NRT2-10/H-12266/Caris/HDCS_Data/H_12266/NRT2_1210_Klein3000HF_200sss/2010-256/sss100913132300/sss1 to JPEG.]

S-F901-NRT2-10 // H-12266 DTON RPT 07132010

Registry Number: H-12266
State: North Carolina
Locality: Morehead City , NC
Sub-locality: Morehead City to Beaufort Inlet
Project Number: S-F901-NRT2-09
Survey Date: 07/07/2010

DTON report on uncharted "No Wake Markers", and DOLS, and Restricted Area Signs.

Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
11547	37th	08/01/2007	1:15,000 (11547_1)	USCG LNM: 05/04/2010 (05/25/2010) NGA NTM: 07/20/2002 (05/29/2010)
11541	39th	03/01/2010	1:40,000 (11541_3)	USCG LNM: 05/04/2010 (05/25/2010) NGA NTM: None (05/29/2010)
11541	39th	03/01/2010	1:40,000 (11541_2)	USCG LNM: 05/04/2010 (05/25/2010) NGA NTM: 09/01/2001 (05/29/2010)
11545	63rd	04/01/2008	1:40,000 (11545_1)	USCG LNM: 05/04/2010 (05/25/2010) NGA NTM: 07/20/2002 (05/29/2010)
11544	39th	07/01/2005	1:80,000 (11544_1)	USCG LNM: 05/04/2010 (05/25/2010) NGA NTM: 07/20/2002 (05/29/2010)
11543	23rd	06/01/2005	1:80,000 (11543_1)	USCG LNM: 05/04/2010 (05/25/2010) NGA NTM: 05/23/2009 (05/29/2010)
11520	43rd	10/01/2008	1:432,720 (11520_1)	[L]NTM: ?
11009	38th	12/01/2006	1:1,200,000 (11009_1)	[L]NTM: ?
13003	49th	04/01/2007	1:1,200,000 (13003_1)	[L]NTM: ?

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

Features

No.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	DOL	Dolphin	-3.84 m	34° 42' 00.1" N	076° 40' 50.2" W	---
1.2	DOL	Dolphin	-4.34 m	34° 41' 59.9" N	076° 40' 51.2" W	---
1.3	Danger Beacon obstn LT W	Articulated light	-4.36 m	34° 42' 00.4" N	076° 40' 59.7" W	---
1.4	DOL Restricted Area sign	Marker (privately maintained)	-2.80 m	34° 41' 55.0" N	076° 40' 55.3" W	---

1.5	Marker, No Wake	Marker (privately maintained)	-3.89 m	34° 42' 39.7" N	076° 41' 19.5" W	---
1.6	Marker, No Wake	Shoal	-3.85 m	34° 42' 35.2" N	076° 41' 37.4" W	---
1.7	Marker No Wake	Shoal	-4.45 m	34° 42' 45.8" N	076° 41' 55.8" W	---
1.8	Marker No Wake	Shoal	-4.12 m	34° 42' 51.6" N	076° 42' 27.5" W	---
1.9	Marker No Wake	Shoal	-4.14 m	34° 42' 43.6" N	076° 42' 22.4" W	---
1.10	Marker No Wake	Shoal	-4.20 m	34° 42' 38.8" N	076° 42' 17.1" W	---
1.11	Marker No Wake	Shoal	-2.60 m	34° 42' 58.5" N	076° 42' 25.7" W	---

1 - Danger To Navigation

1.1) DOL

DANGER TO NAVIGATION

Survey Summary

Survey Position: 34° 42' 00.1" N, 076° 40' 50.2" W
Least Depth: -3.84 m (= -12.59 ft = -2.098 fm = -2 fm 0.59 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** ± 1.962 m ; **TVU (TPEv)** ± 0.204 m
Timestamp: 2010-188.13:58:20.000 (07/07/2010)
DP Dataset: h_12266 / nrt2_1210_dp / 2010-188 / dps_07072010
Profile/Beam: 1/1
Charts Affected: 11547_1, 11541_2, 11545_1, 11543_1, 11544_1, 11520_1, 11009_1, 13003_1

Remarks:

6 Pile dolphin. 3 charted DOLS currently, DO NOT EXIST. SSS ops and shoreline work will clear this section up.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h_12266/nrt2_1210_dp/2010-188/dps_07072010	1/1	0.00	000.0	Primary

Hydrographer Recommendations

Chart DOL

Cartographically-Rounded Depth (Affected Charts):

-13ft (11547_1, 11541_2, 11545_1, 11543_1, 11544_1)

-2fm (11520_1, 11009_1, 13003_1)

S-57 Data

Geo object 1: Mooring/warping facility (MORFAC)
Attributes: CATMOR - 1:dolphin
 CONRAD - 1:radar conspicuous
 HEIGHT - 3.84 m
 SORDAT - 20100707

SORIND - US,US,Survy,H12266

VERDAT - 12:Mean lower low water

WATLEV - 2:always dry

Office Note: The feature is in clear sight to surface navigation and does not merit a DTON status. The new feature should be applied to the chart with the same priority as all other features and updated hydrography as delivered in H12266_CS.000.

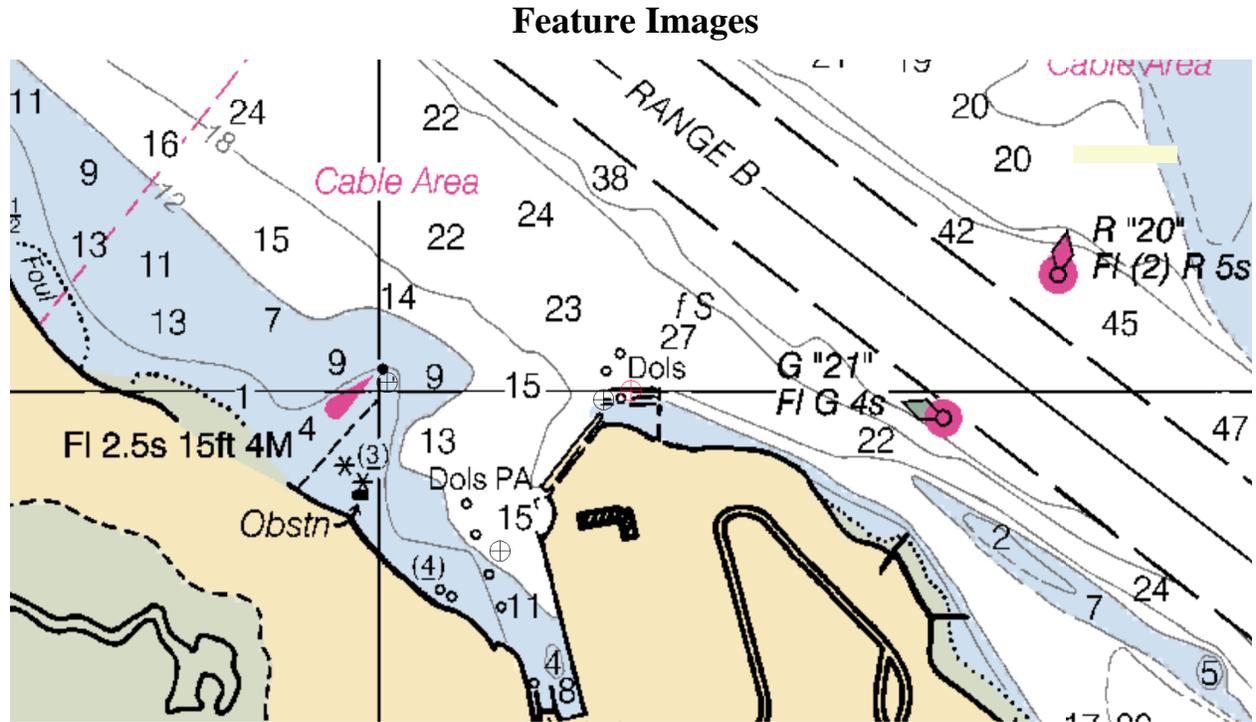


Figure 1.1.1



Figure 1.1.2

1.2) DOL

DANGER TO NAVIGATION

Survey Summary

Survey Position: 34° 41' 59.9" N, 076° 40' 51.2" W
Least Depth: -4.34 m (= -14.25 ft = -2.375 fm = -2 fm 2.25 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** ± 1.963 m ; **TVU (TPEv)** ± 0.204 m
Timestamp: 2010-188.13:59:59.000 (07/07/2010)
DP Dataset: h_12266 / nrt2_1210_dp / 2010-188 / dps_07072010
Profile/Beam: 2/1
Charts Affected: 11547_1, 11541_2, 11545_1, 11543_1, 11544_1, 11520_1, 11009_1, 13003_1

Remarks:

6 Pile Dolphin. With restricted area sign. Major shoreline rework in this area. 3 charted DOLS currently, DO NOT EXIST. SSS ops and shoreline work will clear this section up.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h_12266/nrt2_1210_dp/2010-188/dps_07072010	2/1	0.00	000.0	Primary

Hydrographer Recommendations

Chart Restricted Area Sign

Cartographically-Rounded Depth (Affected Charts):

-14ft (11547_1, 11541_2, 11545_1, 11543_1, 11544_1)
-2 ¼fm (11520_1, 11009_1, 13003_1)

S-57 Data

Geo object 1: Mooring/warping facility (MORFAC)
Attributes: CATMOR - 1:dolphin
CONRAD - 1:radar conspicuous
HEIGHT - 4.34 m

SORDAT - 20100707

SORIND - US,US,Survy,H12266

VERDAT - 12:Mean lower low water

WATLEV - 2:always dry

Office Note: Chart as special purpose pile beacon (BCNSPP). The feature is in clear sight to surface navigation and does not merit a DTON status. The new feature should be applied to the chart with the same priority as all other features and updated hydrography as delivered in H12266_CS.000.

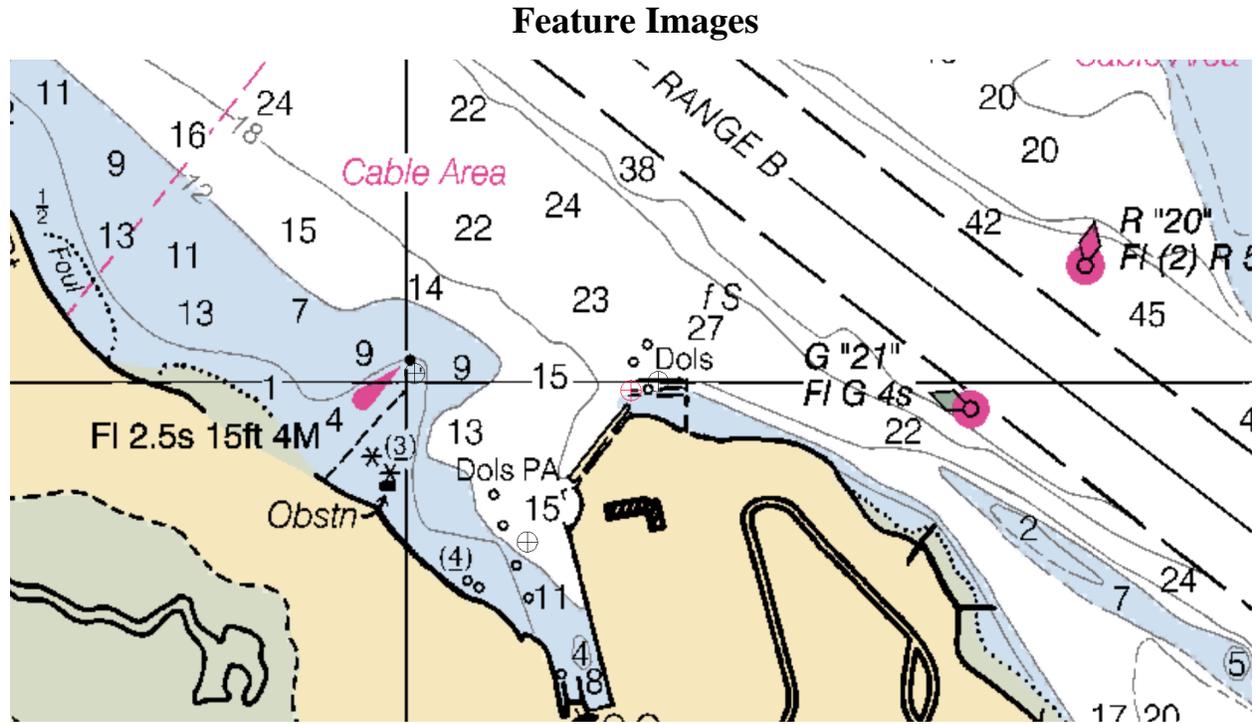


Figure 1.2.1



Figure 1.2.2

1.3) Danger Beacon obstn LT W

DANGER TO NAVIGATION

Survey Summary

Survey Position: 34° 42' 00.4" N, 076° 40' 59.7" W
Least Depth: -4.36 m (= -14.29 ft = -2.382 fm = -2 fm 2.29 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** ± 1.963 m ; **TVU (TPEv)** ± 0.204 m
Timestamp: 2010-188.14:07:52.000 (07/07/2010)
DP Dataset: h_12266 / nrt2_1210_dp / 2010-188 / dps_07072010
Profile/Beam: 3/1
Charts Affected: 11547_1, 11541_2, 11545_1, 11543_1, 11544_1, 11520_1, 11009_1, 13003_1

Remarks:

White Light

Feature Correlation

Address	Feature	Range	Azimuth	Status
h_12266/nrt2_1210_dp/2010-188/dps_07072010	3/1	0.00	000.0	Primary

Hydrographer Recommendations

Adjust position.

Cartographically-Rounded Depth (Affected Charts):

-15ft (11547_1, 11541_2, 11545_1, 11543_1, 11544_1)

-2 ¼fm (11520_1, 11009_1, 13003_1)

S-57 Data

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

Attributes: BCNSHP - 5:pile beacon
 CATSPM - 45:foul ground mark
 COLOUR - 1,11:white,orange
 COLPAT - 6:border stripes
 CONRAD - 1:radar conspicuous

HEIGHT - 4.36 m
SORDAT - 20100707
SORIND - US,US,Survy,H12266
VERDAT - 12:Mean lower low water

Geo object 2: Light (LIGHTS)

Attributes: CATLIT - 10:subsidiary light
COLOUR - 1:white
HEIGHT - 4.36 m
LITCHR - 2:flashing
SIGPER - 2.5 s
SORDAT - 20100707
SORIND - US,US,Survy,H12266
VERDAT - 12:Mean lower low water

Office Note: Federally Maintained light, chart according to latest US Coast Guards Aids to Navigation Information System (ATONIS) database.

Feature Images

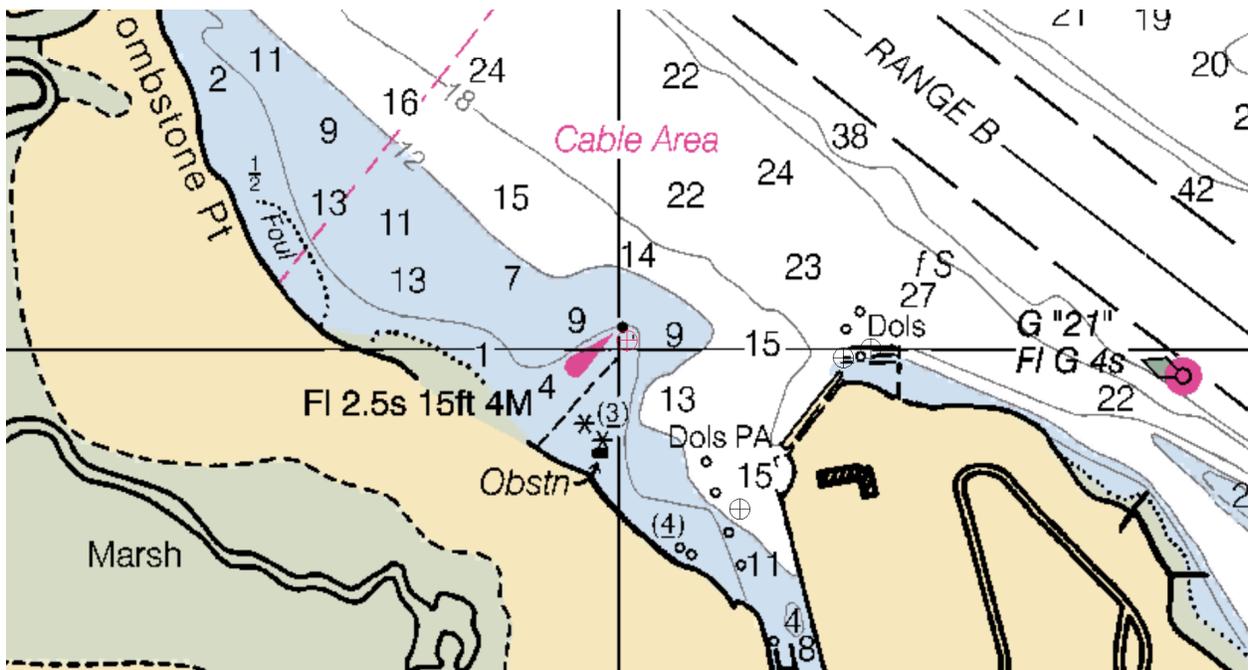


Figure 1.3.1

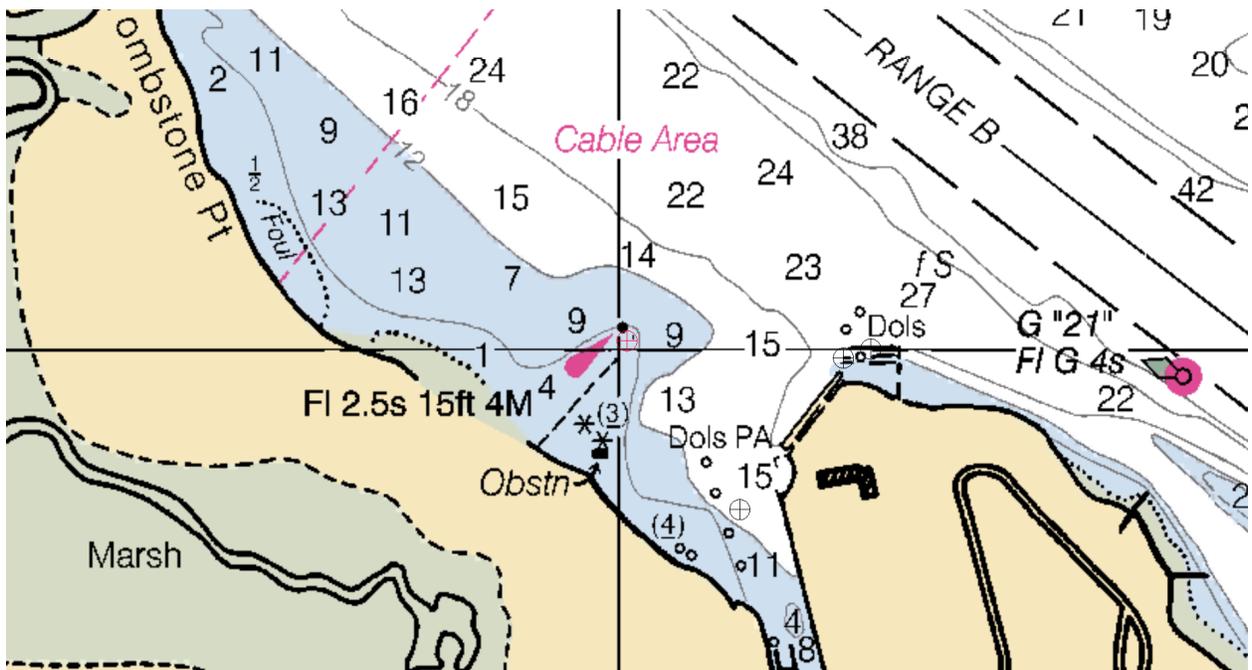


Figure 1.3.2



Figure 1.3.3

1.4) DOL Restricted Area sign

DANGER TO NAVIGATION

Survey Summary

Survey Position: 34° 41' 55.0" N, 076° 40' 55.3" W
Least Depth: -2.80 m (= -9.20 ft = -1.533 fm = -1 fm 3.20 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.961 m ; TVU (TPEv) ± 0.204 m
Timestamp: 2010-188.14:10:45.000 (07/07/2010)
DP Dataset: h_12266 / nrt2_1210_dp / 2010-188 / dps_07072010
Profile/Beam: 4/1
Charts Affected: 11547_1, 11541_2, 11545_1, 11543_1, 11544_1, 11520_1, 11009_1, 13003_1

Remarks:

6 Pile dolphin

Feature Correlation

Address	Feature	Range	Azimuth	Status
h_12266/nrt2_1210_dp/2010-188/dps_07072010	4/1	0.00	000.0	Primary

Hydrographer Recommendations

Chart Restricted Area Sign

Cartographically-Rounded Depth (Affected Charts):

-9ft (11547_1, 11541_2, 11545_1, 11543_1, 11544_1)

-1 ½fm (11520_1, 11009_1, 13003_1)

S-57 Data

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

Attributes: BCNSHP - 5:pile beacon
 CATSPM - 27:general warning mark
 COLOUR - 1:white
 CONRAD - 1:radar conspicuous
 HEIGHT - 2.80 m

SORDAT - 20100707
SORIND - US,US,Survy,H12266
VERDAT - 12:Mean lower low water
Geo object 2: Mooring/warping facility (MORFAC)
Attributes: CATMOR - 1:dolphin
CONRAD - 1:radar conspicuous
HEIGHT - 2.80 m
SORDAT - 20100707
SORIND - US,US,Survy,H12266
VERDAT - 12:Mean lower low water
WATLEV - 2:always dry

Office Note: Chart as special purpose pile beacon (BCNSPP) only. The feature is in clear sight to surface navigation and does not merit a DTON status. The new feature should be applied to the chart with the same priority as all other features and updated hydrography as delivered in H12266_CS.000.

Feature Images

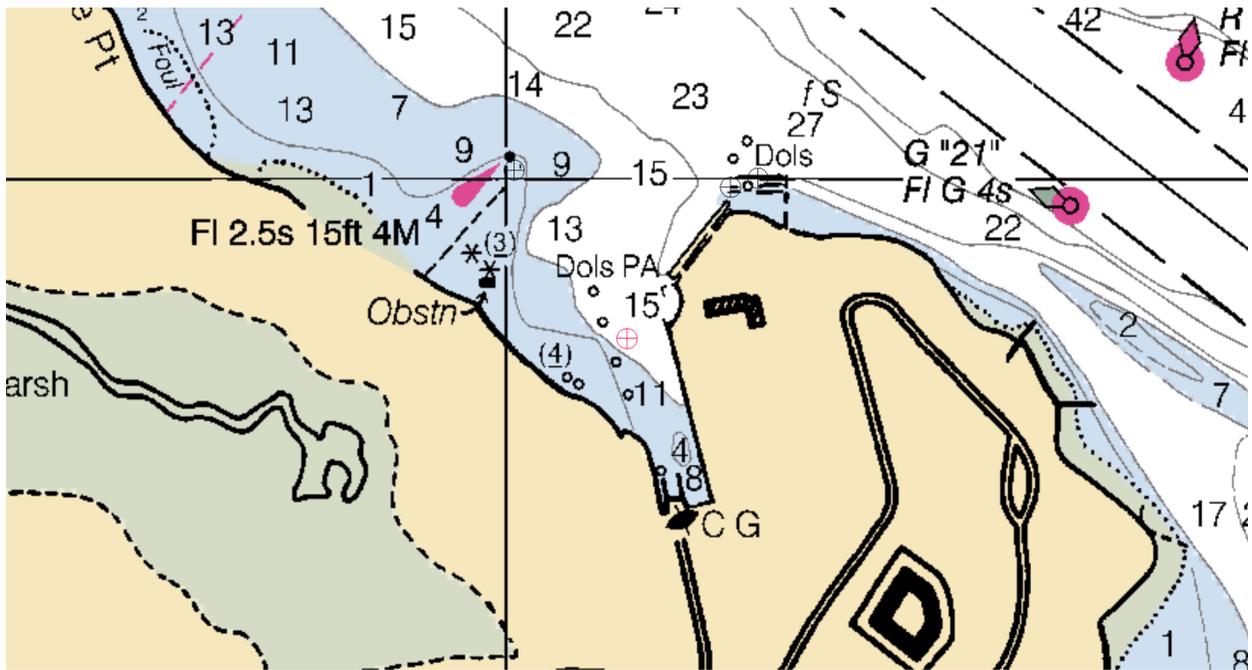


Figure 1.4.1

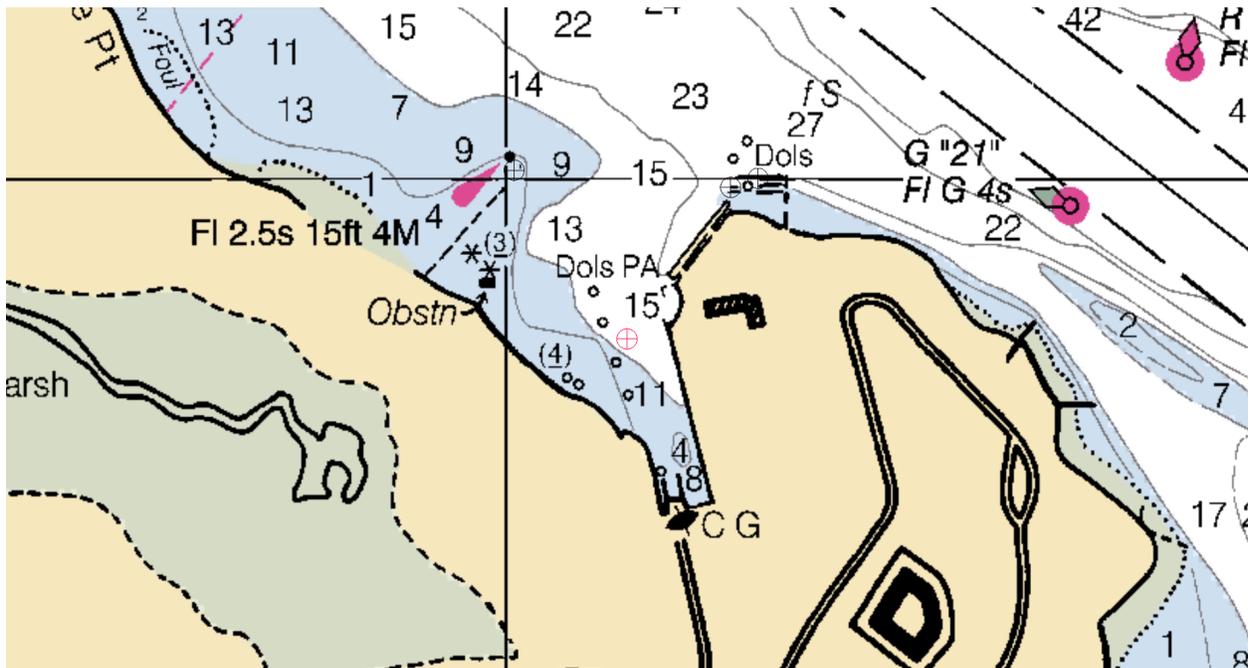


Figure 1.4.2



Figure 1.4.3

1.5) Marker, No Wake

DANGER TO NAVIGATION

Survey Summary

Survey Position: 34° 42' 39.7" N, 076° 41' 19.5" W
Least Depth: -3.89 m (= -12.77 ft = -2.128 fm = -2 fm 0.77 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.962 m ; TVU (TPEv) ± 0.204 m
Timestamp: 2010-188.14:36:08.000 (07/07/2010)
DP Dataset: h_12266 / nrt2_1210_dp / 2010-188 / dps_07072010
Profile/Beam: 5/1
Charts Affected: 11547_1, 11541_2, 11541_3, 11545_1, 11543_1, 11544_1, 11520_1, 11009_1

Remarks:

2 Pile No Wake Zone Marker

Feature Correlation

Address	Feature	Range	Azimuth	Status
h_12266/nrt2_1210_dp/2010-188/dps_07072010	5/1	0.00	000.0	Primary

Hydrographer Recommendations

Chart NO Wake Marker

Cartographically-Rounded Depth (Affected Charts):

-13ft (11547_1, 11541_2, 11541_3, 11545_1, 11543_1, 11544_1)

-2fm (11520_1, 11009_1)

S-57 Data

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

Attributes: BCNSHP - 5:pile beacon
 CATSPM - 25:speed limit mark
 COLPAT - 4,6:squared,border stripes
 CONRAD - 1:radar conspicuous
 HEIGHT - 3.89 m

SORDAT - 20100707

SORIND - US,US,Survy,H12266

VERDAT - 12:Mean lower low water

Office Note: The feature is in clear sight to surface navigation and does not merit a DTON status. The new feature should be applied to the chart with the same priority as all other features and updated hydrography as delivered in H12266_CS.000.

Feature Images

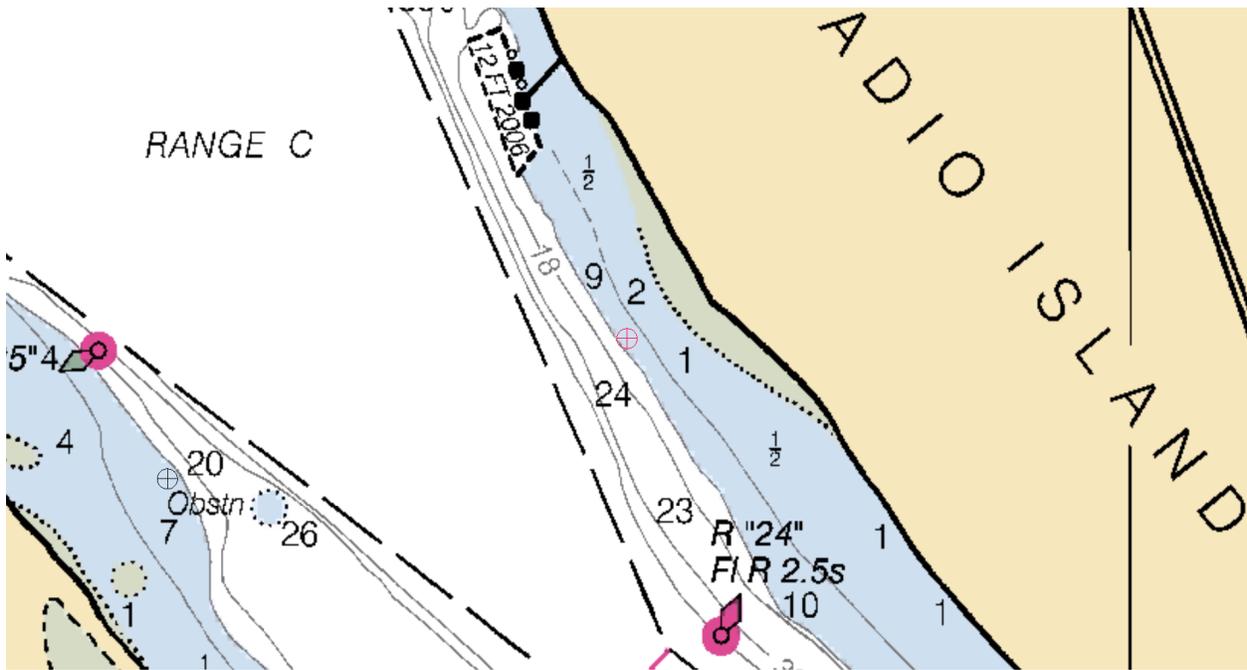


Figure 1.5.1

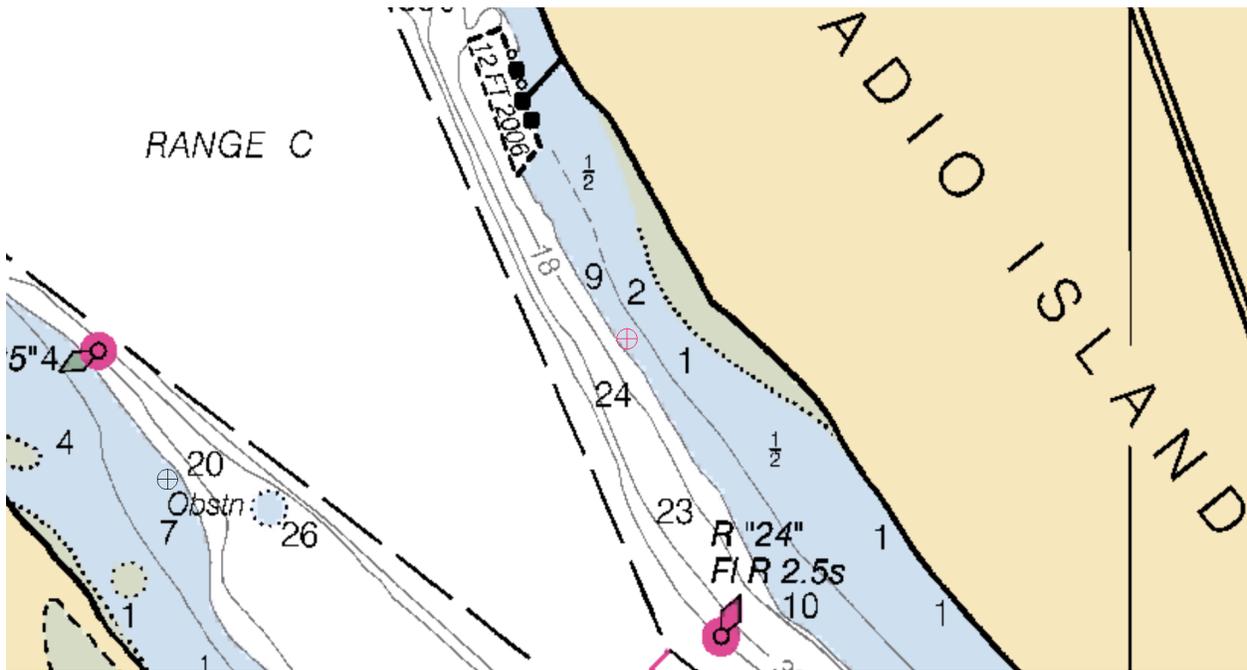


Figure 1.5.2



Figure 1.5.3

1.6) Marker, No Wake

DANGER TO NAVIGATION

Survey Summary

Survey Position: 34° 42' 35.2" N, 076° 41' 37.4" W
Least Depth: -3.85 m (= -12.64 ft = -2.107 fm = -2 fm 0.64 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.962 m ; TVU (TPEv) ± 0.204 m
Timestamp: 2010-188.14:41:19.000 (07/07/2010)
DP Dataset: h_12266 / nrt2_1210_dp / 2010-188 / dps_07072010
Profile/Beam: 6/1
Charts Affected: 11547_1, 11541_2, 11541_3, 11545_1, 11543_1, 11544_1, 11520_1, 11009_1

Remarks:

2 Pile No Wake Zone Sign

Feature Correlation

Address	Feature	Range	Azimuth	Status
h_12266/nrt2_1210_dp/2010-188/dps_07072010	6/1	0.00	000.0	Primary

Hydrographer Recommendations

Chart NO Wake Marker

Cartographically-Rounded Depth (Affected Charts):

-13ft (11547_1, 11541_2, 11541_3, 11545_1, 11543_1, 11544_1)

-2fm (11520_1, 11009_1)

S-57 Data

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

Attributes: BCNSHP - 5:pile beacon
 CATSPM - 25:speed limit mark
 COLPAT - 4,6:squared,border stripes
 HEIGHT - 3.85 m
 SORDAT - 20100707

SORIND - US,US,Survy,H12266

VERDAT - 12:Mean lower low water

Office Note: The feature is in clear sight to surface navigation and does not merit a DTON status. The new feature should be applied to the chart with the same priority as all other features and updated hydrography as delivered in H12266_CS.000.

Feature Images

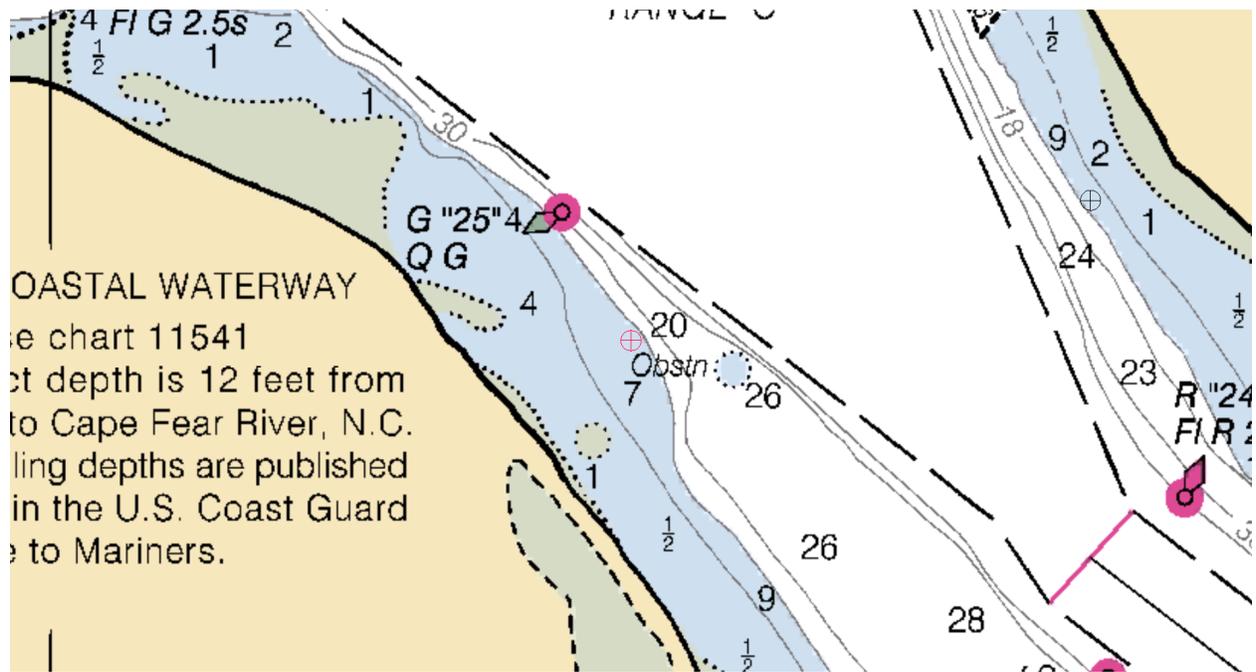


Figure 1.6.1

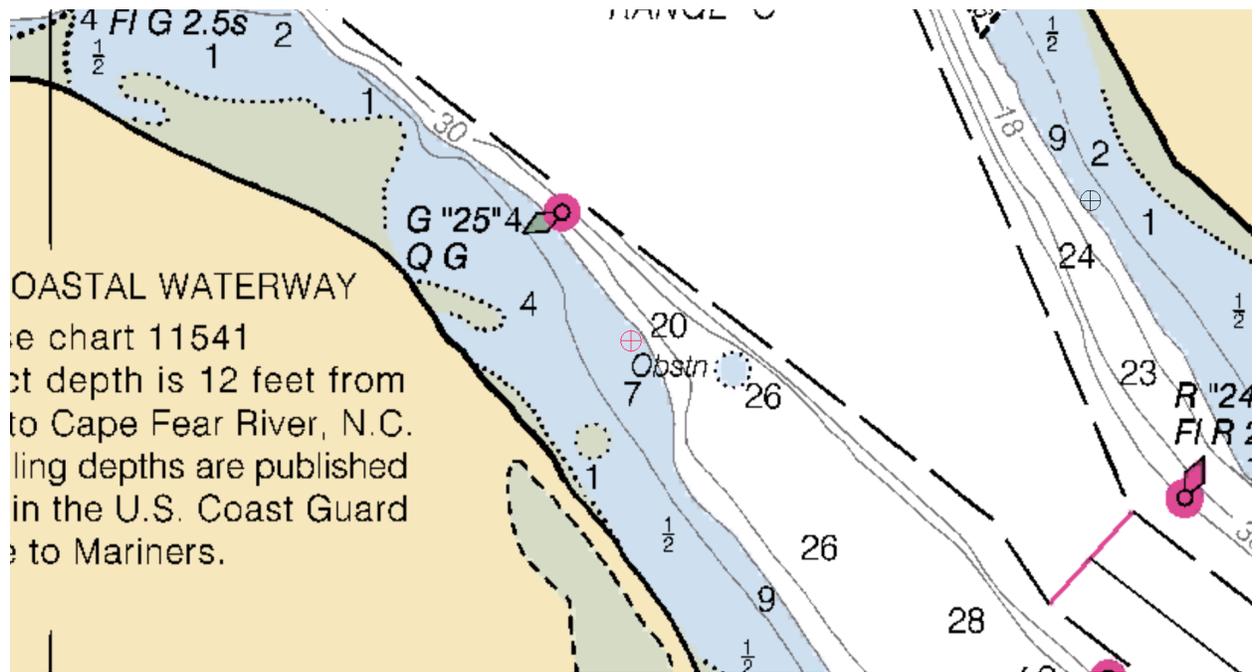


Figure 1.6.2



Figure 1.6.3

1.7) Marker No Wake

DANGER TO NAVIGATION

Survey Summary

Survey Position: 34° 42' 45.8" N, 076° 41' 55.8" W
Least Depth: -4.45 m (= -14.61 ft = -2.435 fm = -2 fm 2.61 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** ± 1.963 m ; **TVU (TPEv)** ± 0.204 m
Timestamp: 2010-188.15:21:51.000 (07/07/2010)
DP Dataset: h_12266 / nrt2_1210_dp / 2010-188 / dps_07072010
Profile/Beam: 7/1
Charts Affected: 11547_1, 11541_2, 11541_3, 11545_1, 11543_1, 11544_1, 11520_1, 11009_1

Remarks:

Slow

Feature Correlation

Address	Feature	Range	Azimuth	Status
h_12266/nrt2_1210_dp/2010-188/dps_07072010	7/1	0.00	000.0	Primary

Hydrographer Recommendations

Chart NO Wake Marker

Cartographically-Rounded Depth (Affected Charts):

-15ft (11547_1, 11541_2, 11541_3, 11545_1, 11543_1, 11544_1)

-2 ¼fm (11520_1, 11009_1)

S-57 Data

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

Attributes: BCNSHP - 5:pile beacon
 CATSPM - 25:speed limit mark
 COLOUR - 1:white
 COLPAT - 4:squared
 CONRAD - 1:radar conspicuous

HEIGHT - 4.45 m

SORDAT - 20100707

SORIND - US,US,Survy,H12266

VERDAT - 12:Mean lower low water

Office Note: The feature is in clear sight to surface navigation and does not merit a DTON status. The new feature should be applied to the chart with the same priority as all other features and updated hydrography as delivered in H12266_CS.000.

Feature Images

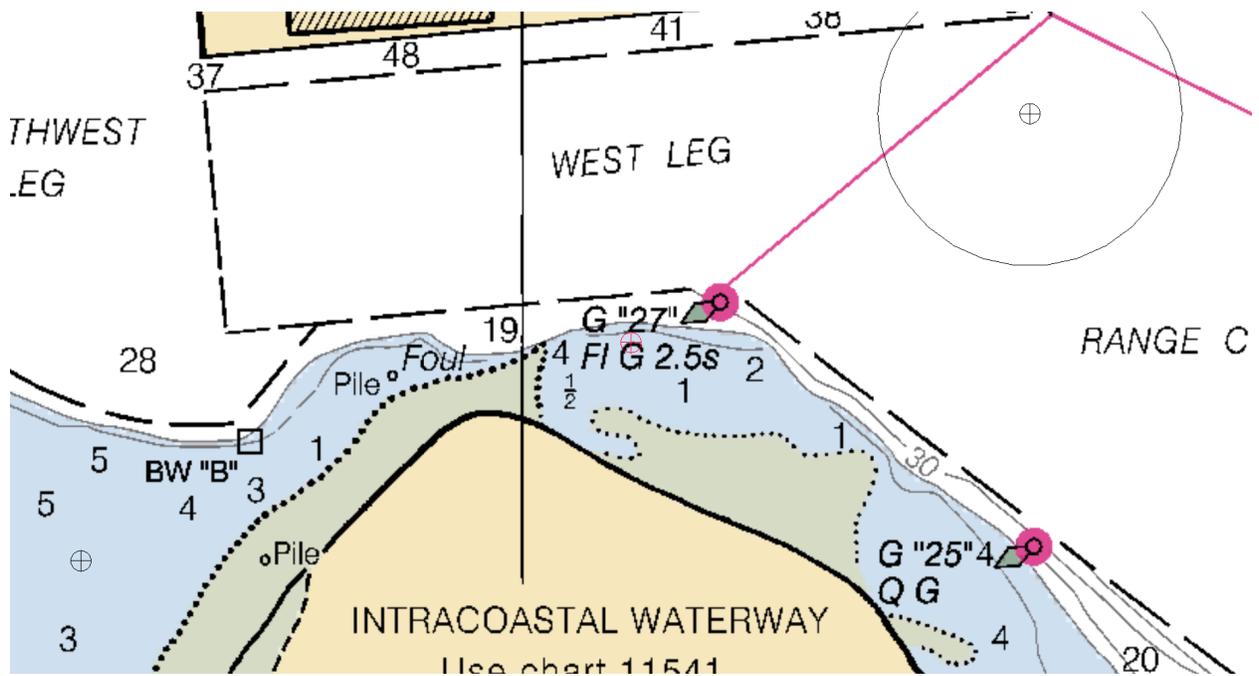


Figure 1.7.1

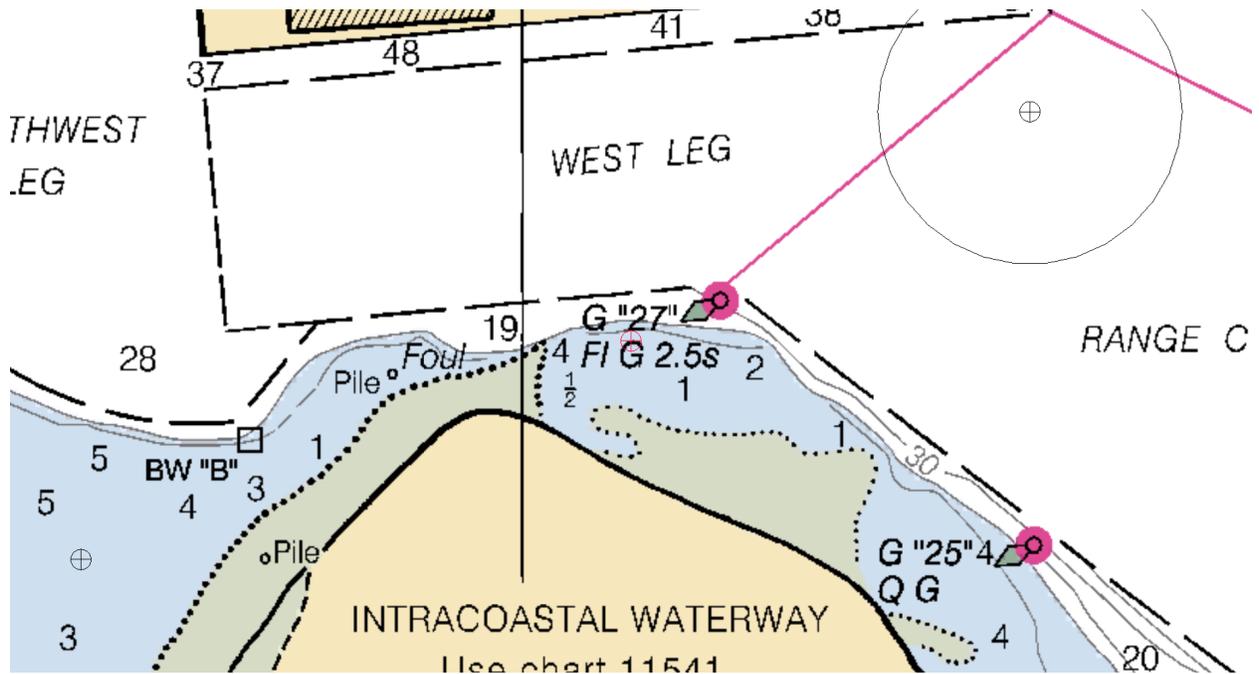


Figure 1.7.2



Figure 1.7.3

1.8) Marker No Wake

DANGER TO NAVIGATION

Survey Summary

Survey Position: 34° 42' 51.6" N, 076° 42' 27.5" W
Least Depth: -4.12 m (= -13.51 ft = -2.251 fm = -2 fm 1.51 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.963 m ; TVU (TPEv) ± 0.204 m
Timestamp: 2010-188.16:38:13.000 (07/07/2010)
DP Dataset: h_12266 / nrt2_1210_dp / 2010-188 / dps_07072010
Profile/Beam: 9/1
Charts Affected: 11547_1, 11541_2, 11541_3, 11545_1, 11543_1, 11520_1, 11009_1

Remarks:

No wake

Feature Correlation

Address	Feature	Range	Azimuth	Status
h_12266/nrt2_1210_dp/2010-188/dps_07072010	9/1	0.00	000.0	Primary

Hydrographer Recommendations

Chart NO Wake Marker

Cartographically-Rounded Depth (Affected Charts):

-14ft (11547_1, 11541_2, 11541_3, 11545_1, 11543_1)

-2 ¼fm (11520_1, 11009_1)

S-57 Data

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

Attributes: BCNSHP - 5:pile beacon
 CATSPM - 25:speed limit mark
 COLOUR - 1:white
 COLPAT - 4:squared
 CONRAD - 1:radar conspicuous

HEIGHT - 4.12 m

SORDAT - 20100707

SORIND - US,US,Survy,H12266

VERDAT - 12:Mean lower low water

Office Note: The feature is in clear sight to surface navigation and does not merit a DTON status. The new feature should be applied to the chart with the same priority as all other features and updated hydrography as delivered in H12266_CS.000.

Feature Images

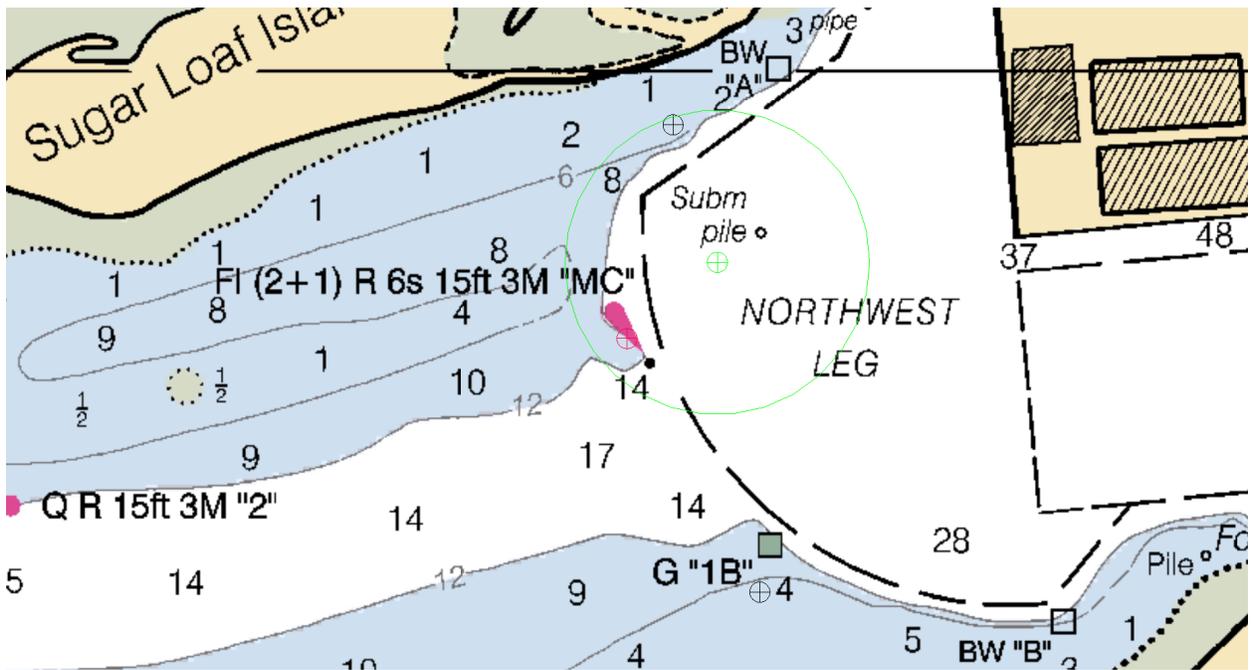


Figure 1.8.1

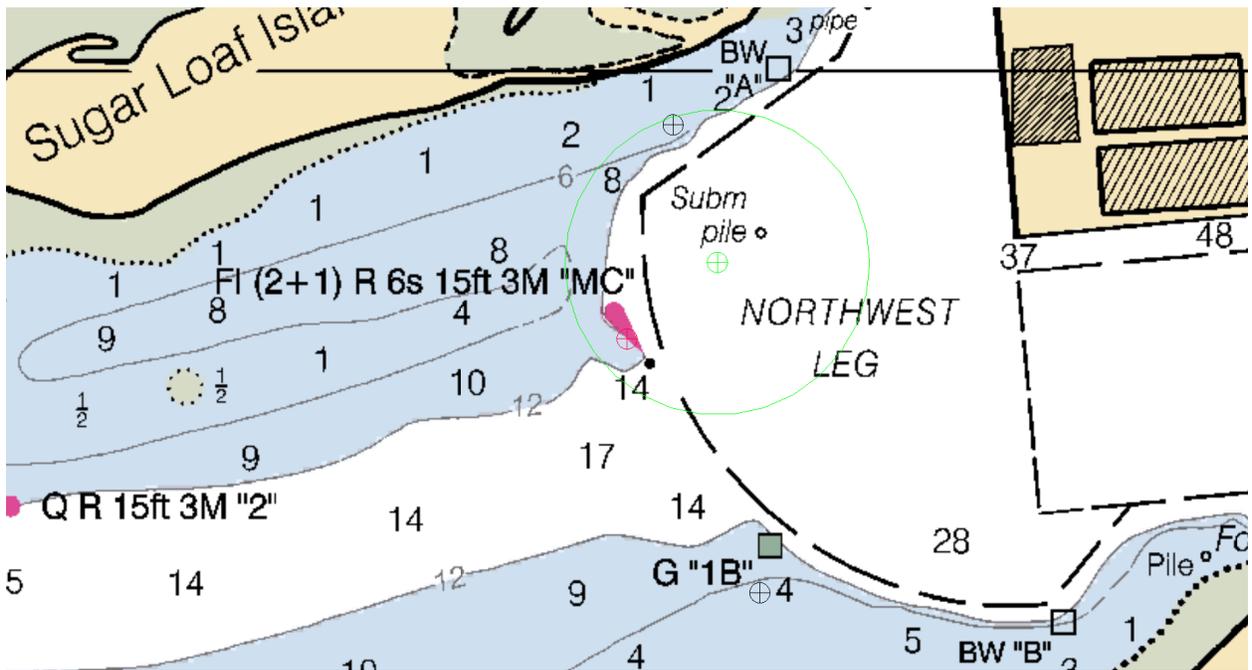


Figure 1.8.2



Figure 1.8.3

1.9) Marker No Wake

DANGER TO NAVIGATION

Survey Summary

Survey Position: 34° 42' 43.6" N, 076° 42' 22.4" W
Least Depth: -4.14 m (= -13.59 ft = -2.265 fm = -2 fm 1.59 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** ± 1.963 m ; **TVU (TPEv)** ± 0.204 m
Timestamp: 2010-188.16:41:09.000 (07/07/2010)
DP Dataset: h_12266 / nrt2_1210_dp / 2010-188 / dps_07072010
Profile/Beam: 10/1
Charts Affected: 11547_1, 11541_2, 11541_3, 11545_1, 11543_1, 11520_1, 11009_1

Remarks:

No Wake

Feature Correlation

Address	Feature	Range	Azimuth	Status
h_12266/nrt2_1210_dp/2010-188/dps_07072010	10/1	0.00	000.0	Primary

Hydrographer Recommendations

Chart NO Wake Marker

Cartographically-Rounded Depth (Affected Charts):

-14ft (11547_1, 11541_2, 11541_3, 11545_1, 11543_1)

-2 ¼fm (11520_1, 11009_1)

S-57 Data

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

Attributes: BCNSHP - 5:pile beacon
 CATSPM - 25:speed limit mark
 COLOUR - 1:white
 COLPAT - 4:squared
 CONRAD - 1:radar conspicuous

HEIGHT - 4.14 m

SORDAT - 20100707

SORIND - US,US,Survy,H12266

VERDAT - 12:Mean lower low water

Office Note: The feature is in clear sight to surface navigation and does not merit a DTON status. The new feature should be applied to the chart with the same priority as all other features and updated hydrography as delivered in H12266_CS.000.

Feature Images

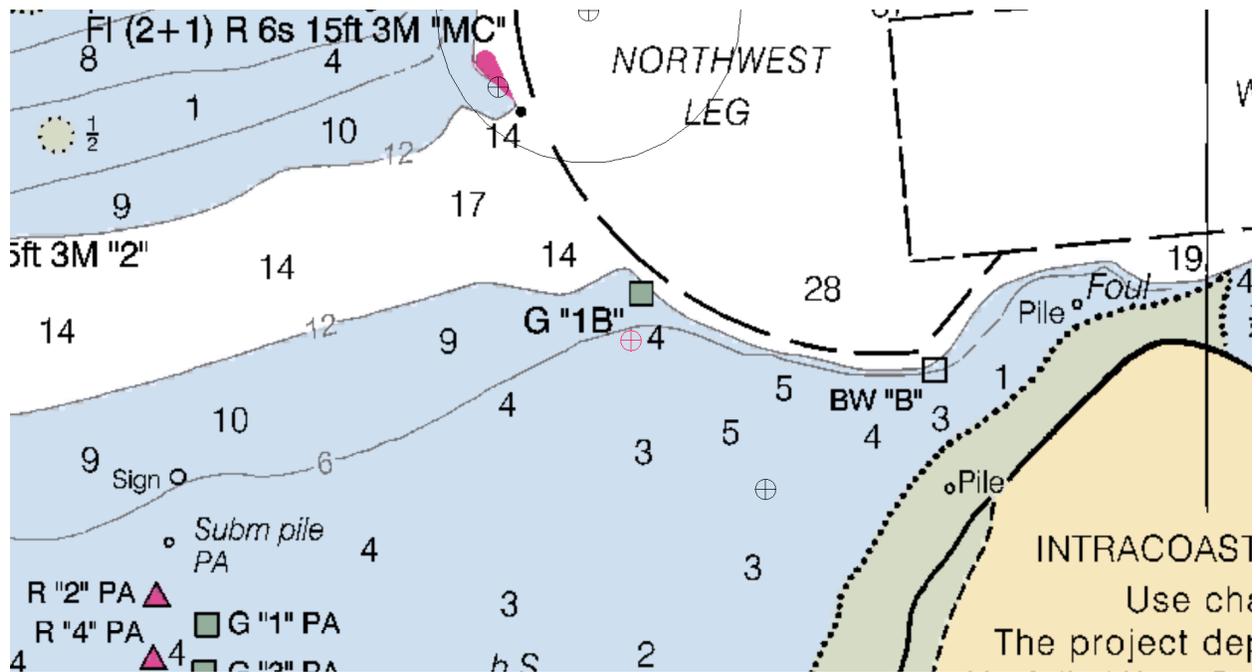


Figure 1.9.1

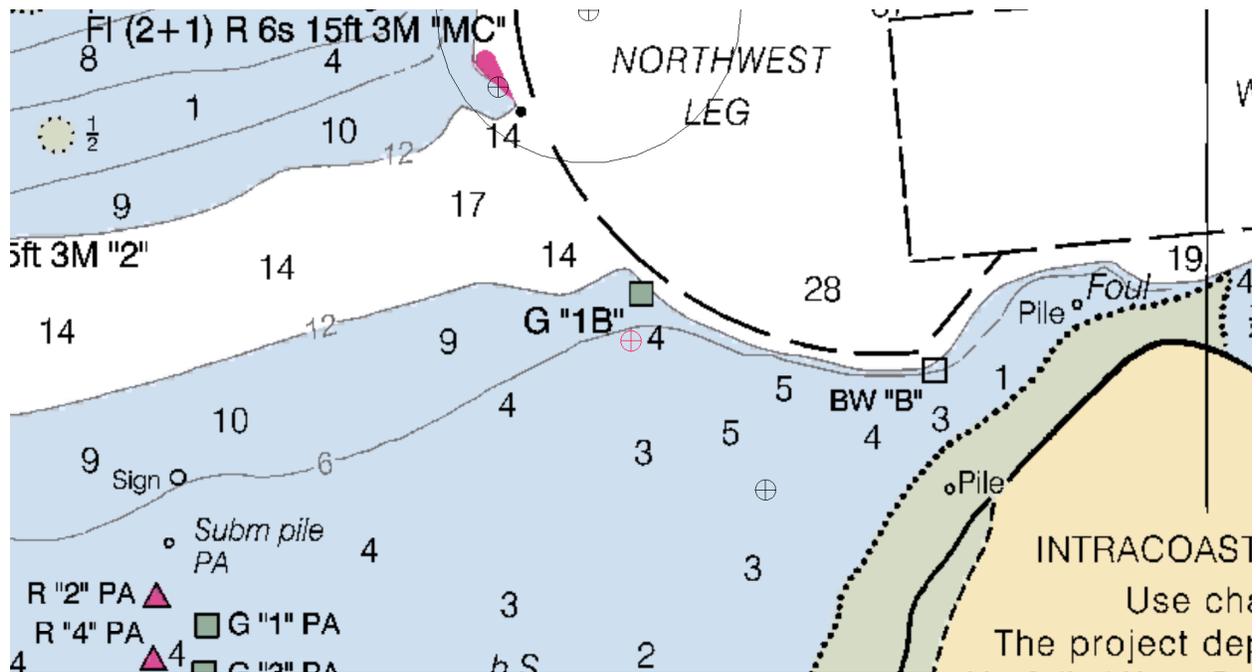


Figure 1.9.2



Figure 1.9.3

1.10) Marker No Wake

DANGER TO NAVIGATION

Survey Summary

Survey Position: 34° 42' 38.8" N, 076° 42' 17.1" W
Least Depth: -4.20 m (= -13.78 ft = -2.297 fm = -2 fm 1.78 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** ± 1.963 m ; **TVU (TPEv)** ± 0.204 m
Timestamp: 2010-188.16:42:48.000 (07/07/2010)
DP Dataset: h_12266 / nrt2_1210_dp / 2010-188 / dps_07072010
Profile/Beam: 11/1
Charts Affected: 11547_1, 11541_2, 11541_3, 11545_1, 11543_1, 11520_1, 11009_1

Remarks:

No wake

Feature Correlation

Address	Feature	Range	Azimuth	Status
h_12266/nrt2_1210_dp/2010-188/dps_07072010	11/1	0.00	000.0	Primary

Hydrographer Recommendations

Chart NO Wake Marker

Cartographically-Rounded Depth (Affected Charts):

-14ft (11547_1, 11541_2, 11541_3, 11545_1, 11543_1)

-2 ¼fm (11520_1, 11009_1)

S-57 Data

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

Attributes: BCNSHP - 5:pile beacon
 CATSPM - 25:speed limit mark
 COLOUR - 1:white
 COLPAT - 4:squared
 CONRAD - 1:radar conspicuous

HEIGHT - 4.20 m

SORDAT - 20100707

SORIND - US,US,Survy,H12266

VERDAT - 12:Mean lower low water

Office Note: The feature is in clear sight to surface navigation and does not merit a DTON status. The new feature should be applied to the chart with the same priority as all other features and updated hydrography as delivered in H12266_CS.000.

Feature Images

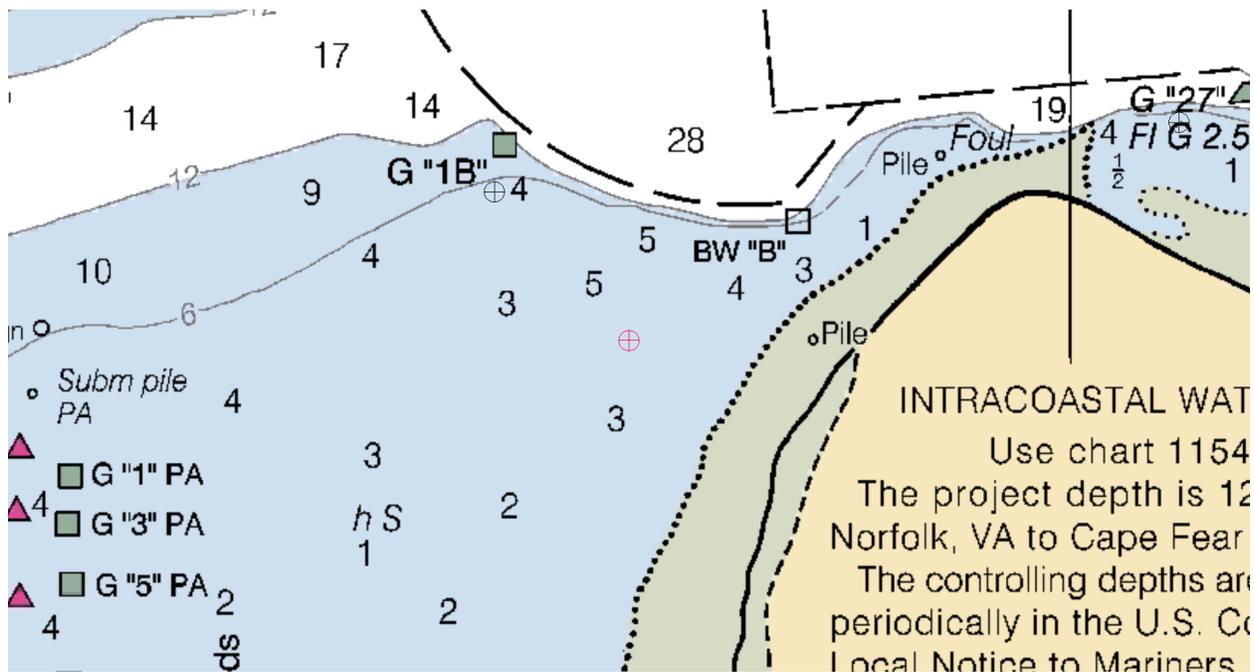


Figure 1.10.1

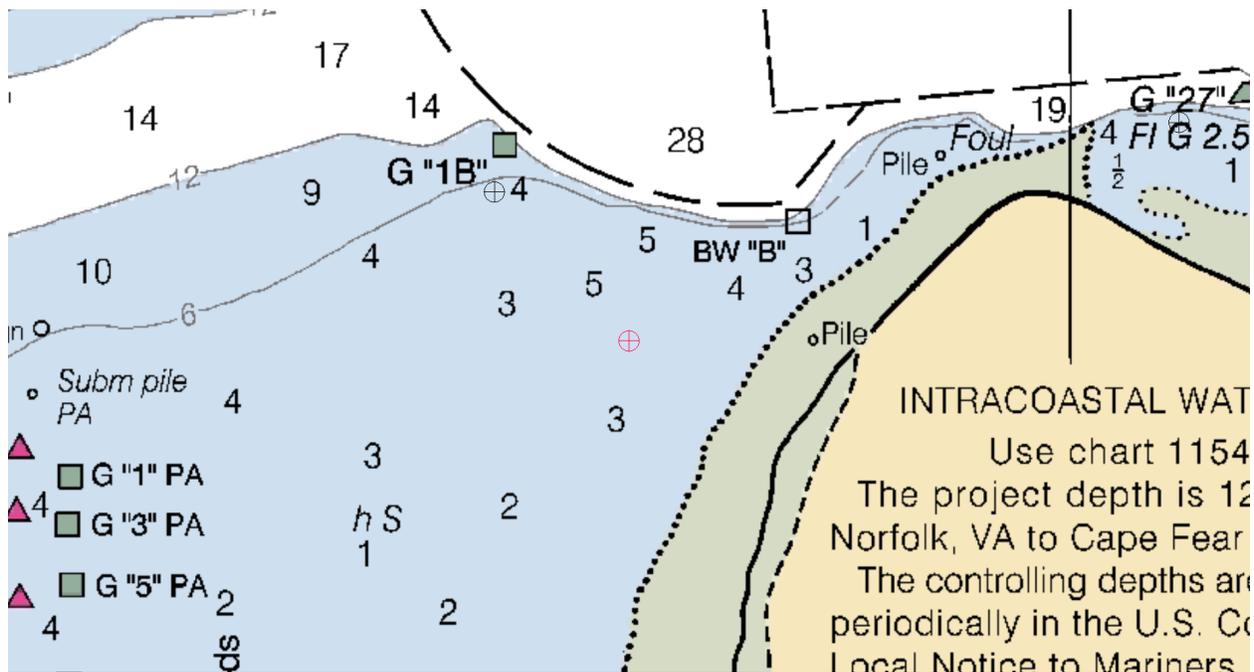


Figure 1.10.2



Figure 1.10.3

1.11) Marker No Wake

DANGER TO NAVIGATION

Survey Summary

Survey Position: 34° 42' 58.5" N, 076° 42' 25.7" W
Least Depth: -2.60 m (= -8.54 ft = -1.423 fm = -1 fm 2.54 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.962 m ; TVU (TPEv) ± 0.203 m
Timestamp: 2010-188.16:46:43.000 (07/07/2010)
DP Dataset: h_12266 / nrt2_1210_dp / 2010-188 / dps_07072010
Profile/Beam: 12/1
Charts Affected: 11547_1, 11541_2, 11541_3, 11545_1, 11543_1, 11520_1, 11009_1

Remarks:

No wake

Feature Correlation

Address	Feature	Range	Azimuth	Status
h_12266/nrt2_1210_dp/2010-188/dps_07072010	12/1	0.00	000.0	Primary

Hydrographer Recommendations

Chart NO Wake Marker

Cartographically-Rounded Depth (Affected Charts):

-9ft (11547_1, 11541_2, 11541_3, 11545_1, 11543_1)

-1 ¼fm (11520_1, 11009_1)

S-57 Data

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

Attributes: BCNSHP - 5:pile beacon
 CATSPM - 25:speed limit mark
 COLOUR - 1:white
 COLPAT - 4:squared
 CONRAD - 1:radar conspicuous

HEIGHT - 2.60 m

SORDAT - 20100707

SORIND - US,US,Survy,H12266

VERDAT - 12:Mean lower low water

Office Note: The feature is in clear sight to surface navigation and does not merit a DTON status. The new feature should be applied to the chart with the same priority as all other features and updated hydrography as delivered in H12266_CS.000.



Figure 1.11.2

S-F901-NRT2-10 // H-12266 Anti-DTON RPT 09242010

Registry Number: H-12266
State: North Carolina
Locality: Morehead City , NC
Sub-locality: Morehead City to Beaufort Inlet
Project Number: S-F901-NRT2-10
Survey Date: 09/24/2010

Anti-DTON report for H-12266. This report addresses items disproved by 200% SSS coverage.

Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
11547	37th	08/01/2007	1:15,000 (11547_1)	USCG LNM: 05/04/2010 (05/25/2010) NGA NTM: 07/20/2002 (05/29/2010)
11541	39th	03/01/2010	1:40,000 (11541_3)	USCG LNM: 05/04/2010 (05/25/2010) NGA NTM: None (05/29/2010)
11541	39th	03/01/2010	1:40,000 (11541_2)	USCG LNM: 05/04/2010 (05/25/2010) NGA NTM: 09/01/2001 (05/29/2010)
11545	63rd	04/01/2008	1:40,000 (11545_1)	USCG LNM: 05/04/2010 (05/25/2010) NGA NTM: 07/20/2002 (05/29/2010)
11544	39th	07/01/2005	1:80,000 (11544_1)	USCG LNM: 05/04/2010 (05/25/2010) NGA NTM: 07/20/2002 (05/29/2010)
11543	23rd	06/01/2005	1:80,000 (11543_1)	USCG LNM: 05/04/2010 (05/25/2010) NGA NTM: 05/23/2009 (05/29/2010)
11520	43rd	10/01/2008	1:432,720 (11520_1)	[L]NTM: ?
11009	38th	12/01/2006	1:1,200,000 (11009_1)	[L]NTM: ?
13003	49th	04/01/2007	1:1,200,000 (13003_1)	[L]NTM: ?

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

Features

No.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	Charted dol Removal	Dolphin	[None]	34° 41' 53.1" N	076° 40' 55.3" W	---
1.2	Charted dol Removal	GP	[None]	34° 41' 54.2" N	076° 40' 55.7" W	---
1.3	Charted dol Removal	GP	[None]	34° 41' 55.5" N	076° 40' 56.2" W	---
1.4	Charted dol Removal	GP	[None]	34° 41' 56.5" N	076° 40' 56.6" W	---

1.5	Charted dol Removal	GP	[None]	34° 42' 01.3" N	076° 40' 50.7" W	---
1.6	Charted dol Removal	GP	[None]	34° 42' 00.7" N	076° 40' 51.2" W	---
1.7	Charted dol Removal	GP	[None]	34° 41' 59.8" N	076° 40' 50.6" W	---
1.8	Charted Light Removal	GP	[None]	34° 42' 17.3" N	076° 40' 47.6" W	---
1.9	Charted dol Removal	GP	[None]	34° 42' 17.9" N	076° 40' 47.6" W	---
1.10	Charted dol Removal	GP	[None]	34° 42' 18.9" N	076° 40' 48.1" W	---
1.11	Charted dol Removal	GP	[None]	34° 42' 18.4" N	076° 40' 49.8" W	---
1.12	Charted dol Removal	GP	[None]	34° 42' 19.5" N	076° 40' 50.2" W	---
1.13	Charted dol Removal	GP	[None]	34° 42' 19.8" N	076° 40' 48.5" W	---
1.14	Charted dol Removal	GP	[None]	34° 42' 20.9" N	076° 40' 49.1" W	---
1.15	Charted dol Removal	GP	[None]	34° 42' 20.6" N	076° 40' 50.6" W	---
1.16	Charted dol Removal	GP	[None]	34° 42' 21.9" N	076° 40' 45.9" W	---
1.17	Charted dol Removal	GP	[None]	34° 42' 20.9" N	076° 40' 45.4" W	---
1.18	Charted dol Removal	GP	[None]	34° 42' 19.9" N	076° 40' 44.9" W	---
1.19	Charted dol Removal	GP	[None]	34° 42' 18.9" N	076° 40' 44.5" W	---
1.20	Charted subm groin Removal	Obstruction	[None]	34° 42' 16.9" N	076° 40' 48.8" W	---
1.21	Charted subm groin Removal	Obstruction	[None]	34° 42' 16.6" N	076° 40' 43.3" W	---
1.22	Charted subm groin Removal	Obstruction	[None]	34° 42' 21.2" N	076° 40' 44.6" W	---
1.23	Charted pile Removal	GP	[None]	34° 42' 37.5" N	076° 40' 50.3" W	---
1.24	Charted pile Removal	GP	[None]	34° 42' 54.2" N	076° 40' 22.3" W	---
1.25	Charted pile Removal	GP	[None]	34° 43' 00.8" N	076° 40' 14.0" W	---
1.26	Charted pile Removal	GP	[None]	34° 43' 01.9" N	076° 40' 14.1" W	---
1.27	Charted mooring buoy Removal	GP	[None]	34° 43' 09.6" N	076° 41' 38.6" W	---
1.28	Charted pile Removal	GP	[None]	34° 43' 24.0" N	076° 41' 50.0" W	---
1.29	Charted pile Removal	GP	[None]	34° 42' 44.7" N	076° 42' 05.1" W	---
1.30	Charted pile Removal	GP	[None]	34° 42' 52.7" N	076° 43' 36.1" W	---
1.31	Charted pile Removal	GP	[None]	34° 43' 11.5" N	076° 44' 43.7" W	---
1.32	Charted pile Removal	GP	[None]	34° 43' 17.5" N	076° 45' 35.3" W	---
1.33	Charted ruins Removal	Obstruction	[None]	34° 41' 59.4" N	076° 40' 49.1" W	---
1.34	Charted 5ft REP 1983 Removal	Obstruction	[None]	34° 43' 03.0" N	076° 44' 14.8" W	---
1.35	Charted Subm Pile Removal	GP	[None]	34° 43' 10.4" N	076° 44' 46.0" W	---

1 - Danger To Navigation

1.1) Charted dol Removal

DANGER TO NAVIGATION

Survey Summary

Survey Position: 34° 41' 53.1" N, 076° 40' 55.3" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2010-267.13:27:41 (09/24/2010)
GP Dataset: ChartGPs - Digitized
GP No.: 3
Charts Affected: 11547_1, 11541_2, 11545_1, 11543_1, 11544_1, 11520_1, 11009_1, 13003_1

Remarks:

200% SSS disproved existence of charted feature.

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	3	0.00	000.0	Primary

Hydrographer Recommendations

Remove

S-57 Data

Geo object 1: Mooring/warping facility (MORFAC)
Attributes: CATMOR - 1:dolphin
 SORDAT - 20100924
 SORIND - US,US,Survey,H12266

Office Note: Concur with recommendation.

Feature Images



Figure 1.1.1

1.2) Charted dol Removal

DANGER TO NAVIGATION

Survey Summary

Survey Position: 34° 41' 54.2" N, 076° 40' 55.7" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2010-267.13:27:51 (09/24/2010)
GP Dataset: ChartGPs - Digitized
GP No.: 4
Charts Affected: 11547_1, 11541_2, 11545_1, 11543_1, 11544_1, 11520_1, 11009_1, 13003_1

Remarks:

200% SSS disproved existence of charted feature.

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	4	0.00	000.0	Primary

Hydrographer Recommendations

Remove

S-57 Data

Geo object 1: Mooring/warping facility (MORFAC)
Attributes: CATMOR - 1:dolphin
 SORDAT - 20100924
 SORIND - US,US,Survey,H12266

Office Note: Concur with recommendation.

Feature Images



Figure 1.2.1

1.3) Charted dol Removal

DANGER TO NAVIGATION

Survey Summary

Survey Position: 34° 41' 55.5" N, 076° 40' 56.2" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2010-267.13:28:02 (09/24/2010)
GP Dataset: ChartGPs - Digitized
GP No.: 5
Charts Affected: 11547_1, 11541_2, 11545_1, 11543_1, 11544_1, 11520_1, 11009_1, 13003_1

Remarks:

200% SSS disproved existence of charted feature.

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	5	0.00	000.0	Primary

Hydrographer Recommendations

Remove

S-57 Data

Geo object 1: Mooring/warping facility (MORFAC)
Attributes: CATMOR - 1:dolphin
 SORDAT - 20100924
 SORIND - US,US,Survey,H12266

Office Note: Concur with recommendation.

Feature Images



Figure 1.3.1

1.4) Charted dol Removal

DANGER TO NAVIGATION

Survey Summary

Survey Position: 34° 41' 56.5" N, 076° 40' 56.6" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2010-267.13:28:12 (09/24/2010)
GP Dataset: ChartGPs - Digitized
GP No.: 6
Charts Affected: 11547_1, 11541_2, 11545_1, 11543_1, 11544_1, 11520_1, 11009_1, 13003_1

Remarks:

200% SSS disproved existence of charted feature.

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	6	0.00	000.0	Primary

Hydrographer Recommendations

Remove

S-57 Data

Geo object 1: Mooring/warping facility (MORFAC)
Attributes: CATMOR - 1:dolphin
 SORDAT - 20100924
 SORIND - US,US,Survey,H12266

Office Note: Do not concur, covered with 100% Side Scan only. Chart as submerged dol.

Feature Images



Figure 1.4.1

1.5) Charted dol Removal

DANGER TO NAVIGATION

Survey Summary

Survey Position: 34° 42' 01.3" N, 076° 40' 50.7" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2010-267.13:28:58 (09/24/2010)
GP Dataset: ChartGPs - Digitized
GP No.: 7
Charts Affected: 11547_1, 11541_2, 11545_1, 11543_1, 11544_1, 11520_1, 11009_1, 13003_1

Remarks:

200% SSS disproved existence of charted feature.

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	7	0.00	000.0	Primary

Hydrographer Recommendations

Remove

S-57 Data

Geo object 1: Mooring/warping facility (MORFAC)
Attributes: CATMOR - 1:dolphin
 SORDAT - 20100924
 SORIND - US,US,Survey,H12266

Office Note: Concur with recommendation.

Feature Images

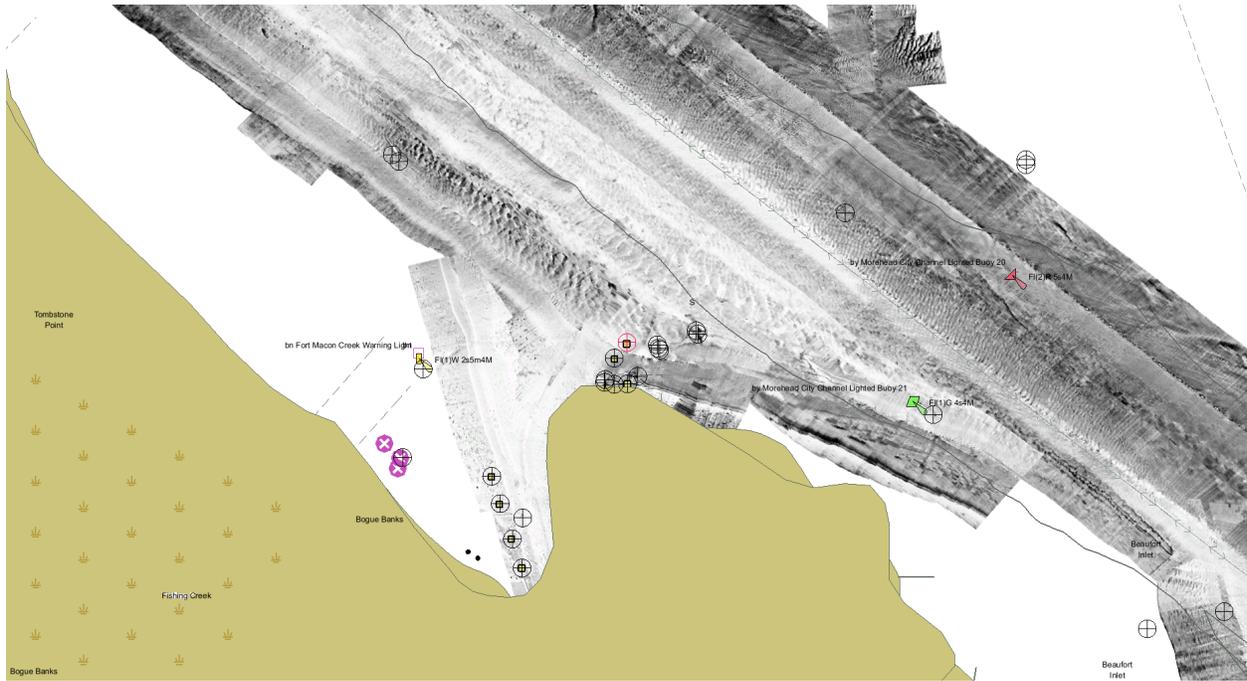


Figure 1.5.1

1.6) Charted dol Removal

DANGER TO NAVIGATION

Survey Summary

Survey Position: 34° 42' 00.7" N, 076° 40' 51.2" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2010-267.13:47:01 (09/24/2010)
GP Dataset: ChartGPs - Digitized
GP No.: 8
Charts Affected: 11547_1, 11541_2, 11545_1, 11543_1, 11544_1, 11520_1, 11009_1, 13003_1

Remarks:

200% SSS disproved existence of charted feature.

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	8	0.00	000.0	Primary

Hydrographer Recommendations

Remove

S-57 Data

Geo object 1: Mooring/warping facility (MORFAC)
Attributes: CATMOR - 1:dolphin
 SORDAT - 20100924
 SORIND - US,US,Survey,H12266

Office Note: Concur with recommendation.

Feature Images



Figure 1.6.1

1.7) Charted dol Removal

DANGER TO NAVIGATION

Survey Summary

Survey Position: 34° 41' 59.8" N, 076° 40' 50.6" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2010-267.13:47:09 (09/24/2010)
GP Dataset: ChartGPs - Digitized
GP No.: 9
Charts Affected: 11547_1, 11541_2, 11545_1, 11543_1, 11544_1, 11520_1, 11009_1, 13003_1

Remarks:

200% SSS disproved existence of charted feature.

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	9	0.00	000.0	Primary

Hydrographer Recommendations

Remove

S-57 Data

Geo object 1: Mooring/warping facility (MORFAC)
Attributes: CATMOR - 1:dolphin
 SORDAT - 20100924
 SORIND - US,US,Survey,H12266

Office Note: Concur with recommendation.

Feature Images

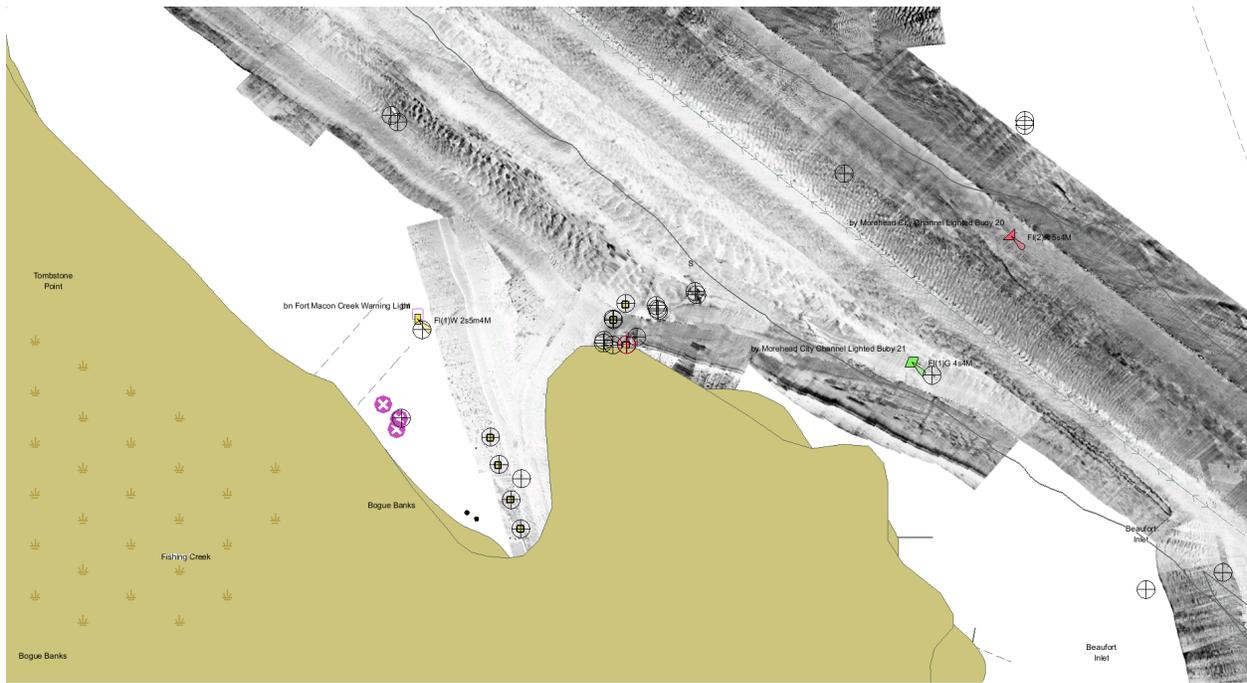


Figure 1.7.1

1.8) Charted Light Removal

DANGER TO NAVIGATION

Survey Summary

Survey Position: 34° 42' 17.3" N, 076° 40' 47.6" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2010-267.13:53:49 (09/24/2010)
GP Dataset: ChartGPs - Digitized
GP No.: 10
Charts Affected: 11547_1, 11541_2, 11545_1, 11543_1, 11544_1, 11520_1, 11009_1, 13003_1

Remarks:

200% SSS disproved existence of charted feature.

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	10	0.00	000.0	Primary

Hydrographer Recommendations

Remove

S-57 Data

Geo object 1: Light (LIGHTS)
Attributes: SORDAT - 20100924
 SORIND - US,US,Survey,H12266

Office Note: Concur, no feature at this location. Light has been removed from RNC, recommend removing platform at this location from ENC.

Feature Images

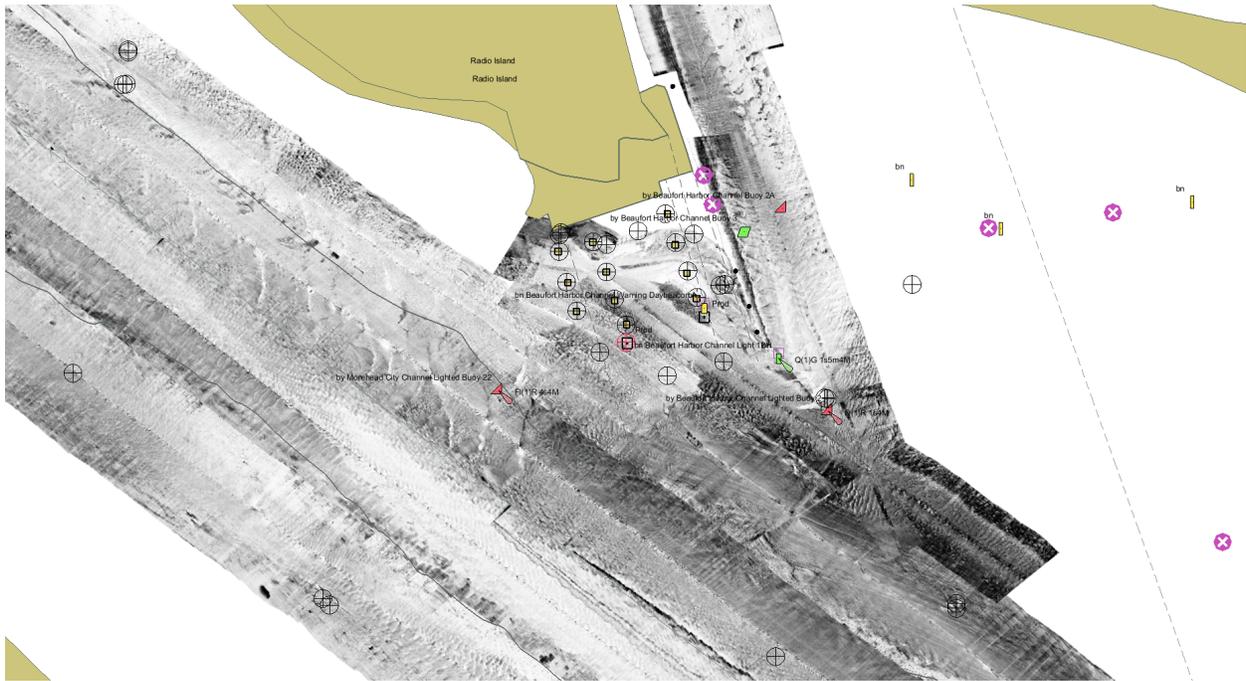


Figure 1.8.1

1.9) Charted dol Removal

DANGER TO NAVIGATION

Survey Summary

Survey Position: 34° 42' 17.9" N, 076° 40' 47.6" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2010-267.13:54:06 (09/24/2010)
GP Dataset: ChartGPs - Digitized
GP No.: 11
Charts Affected: 11547_1, 11541_2, 11545_1, 11543_1, 11544_1, 11520_1, 11009_1, 13003_1

Remarks:

200% SSS disproved existence of charted feature.

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	11	0.00	000.0	Primary

Hydrographer Recommendations

Remove

S-57 Data

Geo object 1: Mooring/warping facility (MORFAC)
Attributes: CATMOR - 1:dolphin
 SORDAT - 20100924
 SORIND - US,US,Survey,H12266

Office Note: Concur with recommendation.

Feature Images

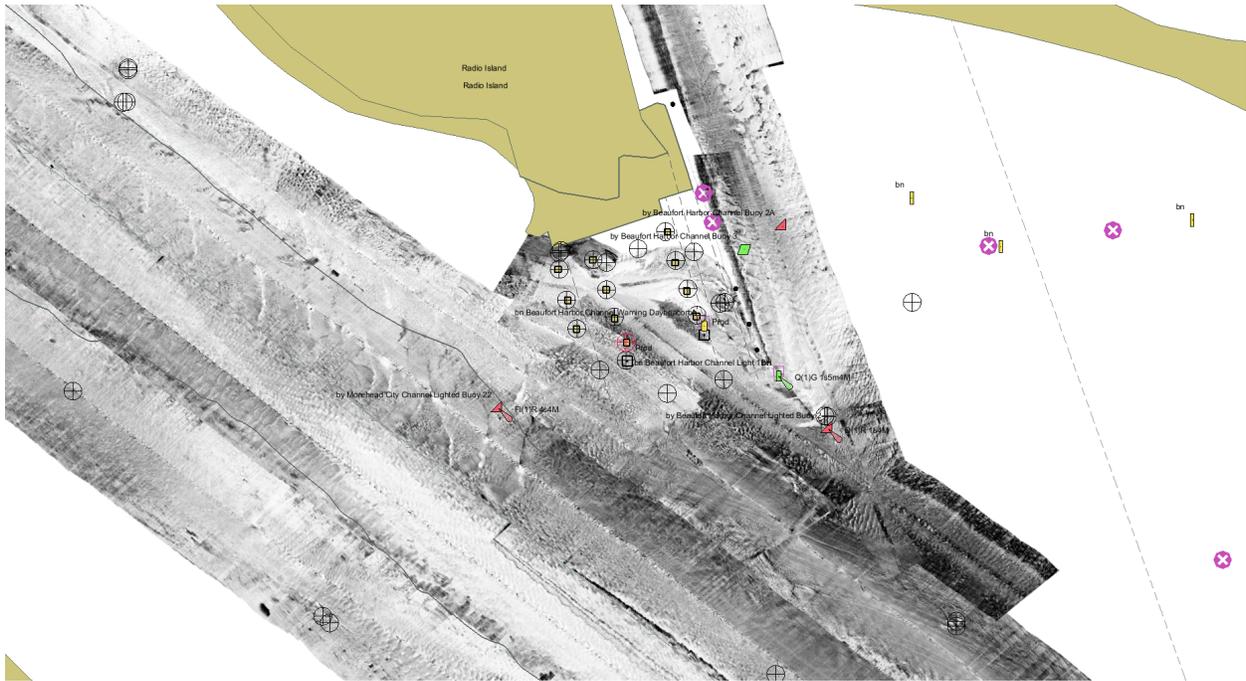


Figure 1.9.1

1.10) Charted dol Removal

DANGER TO NAVIGATION

Survey Summary

Survey Position: 34° 42' 18.9" N, 076° 40' 48.1" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2010-267.13:54:13 (09/24/2010)
GP Dataset: ChartGPs - Digitized
GP No.: 12
Charts Affected: 11547_1, 11541_2, 11545_1, 11543_1, 11544_1, 11520_1, 11009_1, 13003_1

Remarks:

200% SSS disproved existence of charted feature.

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	12	0.00	000.0	Primary

Hydrographer Recommendations

Remove

S-57 Data

Geo object 1: Mooring/warping facility (MORFAC)
Attributes: CATMOR - 1:dolphin
 SORDAT - 20100924
 SORIND - US,US,Survey

Office Note: Concur with recommendation.

1.11) Charted dol Removal

DANGER TO NAVIGATION

Survey Summary

Survey Position: 34° 42' 18.4" N, 076° 40' 49.8" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2010-267.13:54:21 (09/24/2010)
GP Dataset: ChartGPs - Digitized
GP No.: 13
Charts Affected: 11547_1, 11541_2, 11545_1, 11543_1, 11544_1, 11520_1, 11009_1, 13003_1

Remarks:

200% SSS disproved existence of charted feature.

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	13	0.00	000.0	Primary

Hydrographer Recommendations

Remove

S-57 Data

Geo object 1: Mooring/warping facility (MORFAC)
Attributes: CATMOR - 1:dolphin
 SORDAT - 20100924
 SORIND - US,US,Survey,H12266

Office Note: Concur with recommendation.

1.12) Charted dol Removal

DANGER TO NAVIGATION

Survey Summary

Survey Position: 34° 42' 19.5" N, 076° 40' 50.2" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2010-267.13:54:27 (09/24/2010)
GP Dataset: ChartGPs - Digitized
GP No.: 14
Charts Affected: 11547_1, 11541_2, 11545_1, 11543_1, 11544_1, 11520_1, 11009_1, 13003_1

Remarks:

200% SSS disproved existence of charted feature.

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	14	0.00	000.0	Primary

Hydrographer Recommendations

Remove

S-57 Data

Geo object 1: Mooring/warping facility (MORFAC)
Attributes: CATMOR - 1:dolphin
 SORDAT - 20100924
 SORIND - US,US,Survey,H12266

Office Note: Concur with recommendation.

Feature Images

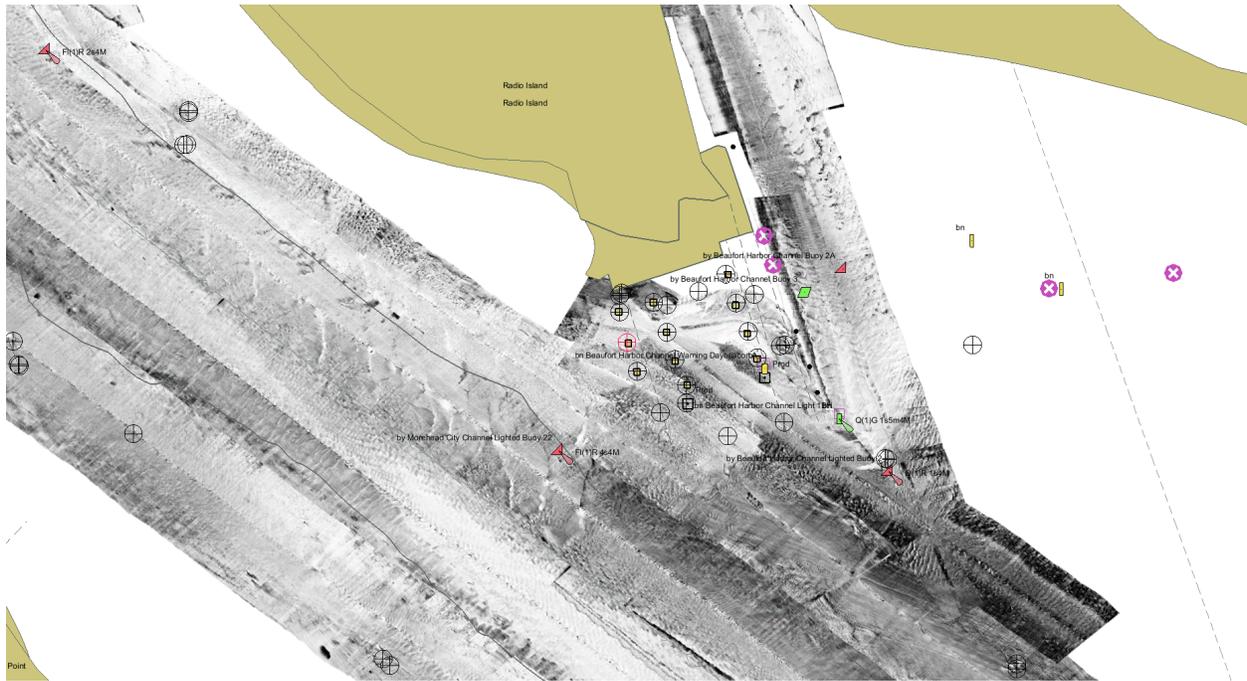


Figure 1.12.1

1.13) Charted dol Removal

DANGER TO NAVIGATION

Survey Summary

Survey Position: 34° 42' 19.8" N, 076° 40' 48.5" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2010-267.13:54:32 (09/24/2010)
GP Dataset: ChartGPs - Digitized
GP No.: 15
Charts Affected: 11547_1, 11541_2, 11545_1, 11543_1, 11544_1, 11520_1, 11009_1, 13003_1

Remarks:

200% SSS disproved existence of charted feature.

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	15	0.00	000.0	Primary

Hydrographer Recommendations

Remove

S-57 Data

Geo object 1: Mooring/warping facility (MORFAC)
Attributes: CATMOR - 1:dolphin
 SORDAT - 20100924
 SORIND - US,US,Survey,H12266

Office Note: Concur with recommendation.

1.14) Charted dol Removal

DANGER TO NAVIGATION

Survey Summary

Survey Position: 34° 42' 20.9" N, 076° 40' 49.1" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2010-267.13:54:40 (09/24/2010)
GP Dataset: ChartGPs - Digitized
GP No.: 16
Charts Affected: 11547_1, 11541_2, 11545_1, 11543_1, 11544_1, 11520_1, 11009_1, 13003_1

Remarks:

200% SSS disproved existence of charted feature.

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	16	0.00	000.0	Primary

Hydrographer Recommendations

Remove

S-57 Data

Geo object 1: Mooring/warping facility (MORFAC)
Attributes: CATMOR - 1:dolphin
 SORDAT - 20100924
 SORIND - US,US,Survey,2010

Office Note: Concur with recommendation.

1.15) Charted dol Removal

DANGER TO NAVIGATION

Survey Summary

Survey Position: 34° 42' 20.6" N, 076° 40' 50.6" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2010-267.13:54:46 (09/24/2010)
GP Dataset: ChartGPs - Digitized
GP No.: 17
Charts Affected: 11547_1, 11541_2, 11545_1, 11543_1, 11544_1, 11520_1, 11009_1, 13003_1

Remarks:

200% SSS disproved existence of charted feature.

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	17	0.00	000.0	Primary

Hydrographer Recommendations

Remove

S-57 Data

Geo object 1: Mooring/warping facility (MORFAC)
Attributes: CATMOR - 1:dolphin
 SORDAT - 20100924
 SORIND - US,US,Survey,H12266

Office Note: Concur with recommendation.

Feature Images

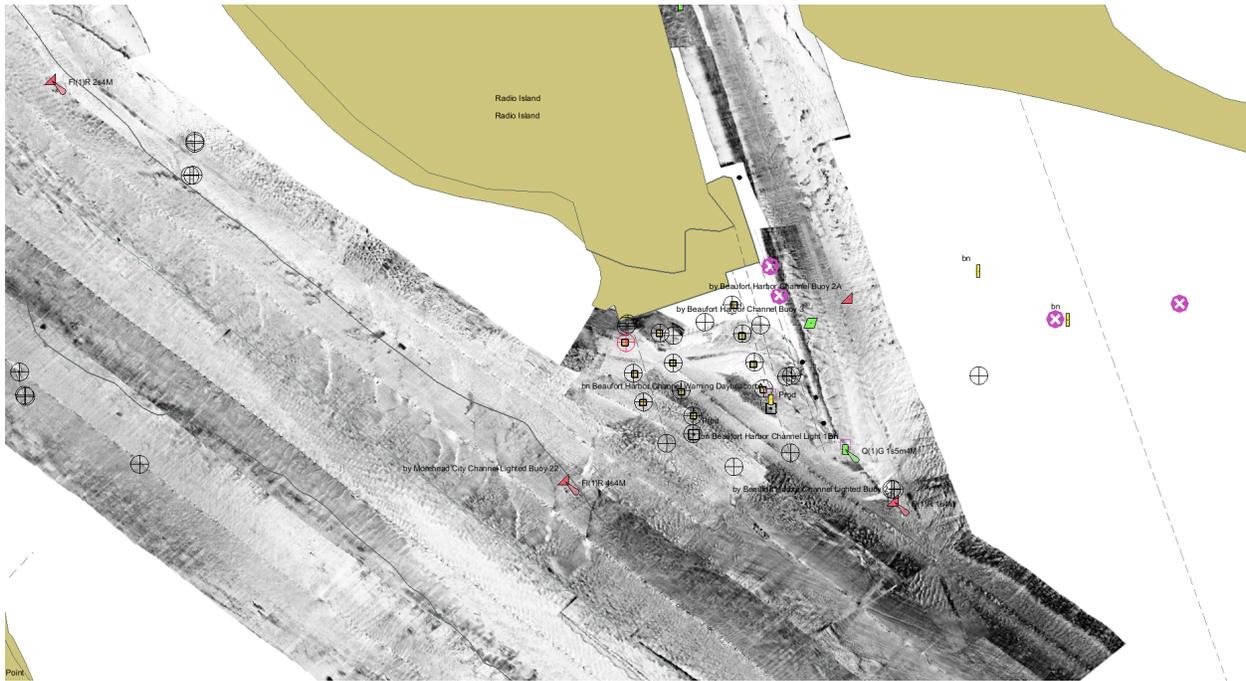


Figure 1.15.1

1.16) Charted dol Removal

DANGER TO NAVIGATION

Survey Summary

Survey Position: 34° 42' 21.9" N, 076° 40' 45.9" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2010-267.13:54:51 (09/24/2010)
GP Dataset: ChartGPs - Digitized
GP No.: 18
Charts Affected: 11547_1, 11541_2, 11545_1, 11543_1, 11544_1, 11520_1, 11009_1, 13003_1

Remarks:

200% SSS disproved existence of charted feature.

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	18	0.00	000.0	Primary

Hydrographer Recommendations

Remove

S-57 Data

Geo object 1: Mooring/warping facility (MORFAC)
Attributes: CATMOR - 1:dolphin
 SORDAT - 20100924
 SORIND - US,US,Survey,H12266

Office Note: Do not concur. No side scan coverage over feature. Retain as charted.

Feature Images

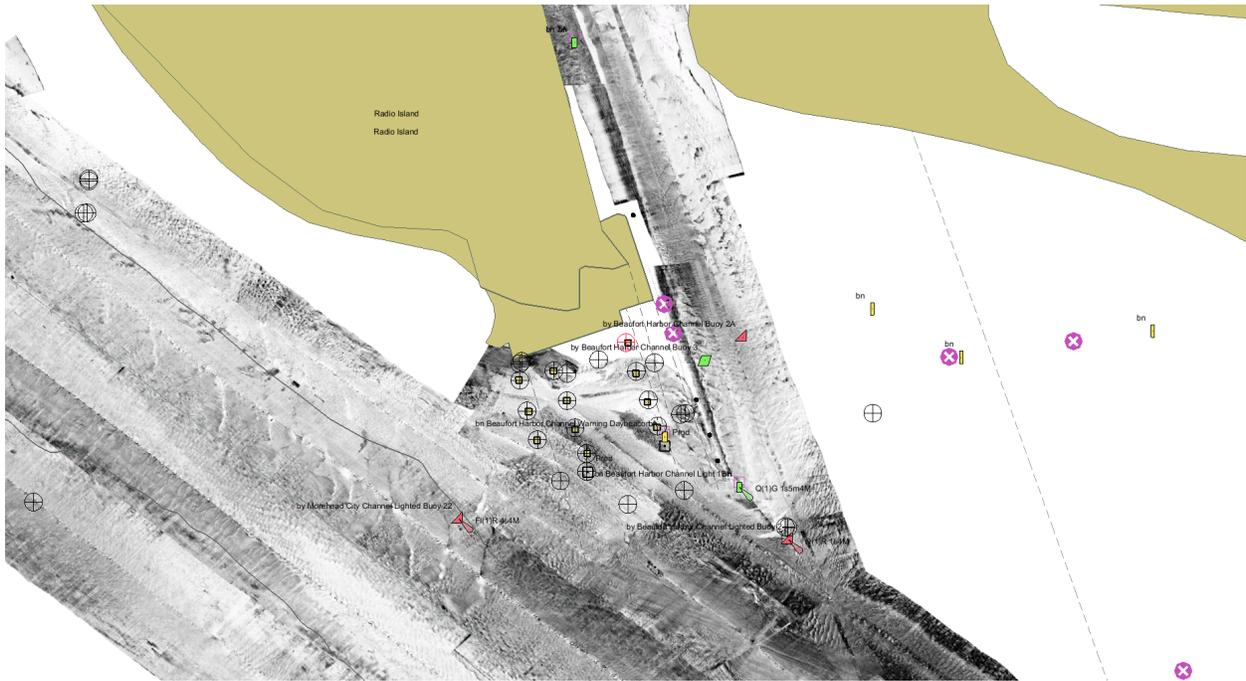


Figure 1.16.1

1.17) Charted dol Removal

DANGER TO NAVIGATION

Survey Summary

Survey Position: 34° 42' 20.9" N, 076° 40' 45.4" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2010-267.13:54:55 (09/24/2010)
GP Dataset: ChartGPs - Digitized
GP No.: 19
Charts Affected: 11547_1, 11541_2, 11545_1, 11543_1, 11544_1, 11520_1, 11009_1, 13003_1

Remarks:

200% SSS disproved existence of charted feature.

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	19	0.00	000.0	Primary

Hydrographer Recommendations

Remove

S-57 Data

Geo object 1: Mooring/warping facility (MORFAC)
Attributes: CATMOR - 1:dolphin
 SORDAT - 20100924
 SORIND - US,US,Survey,H12266

Office Note: Do not concur, covered with 100% Side Scan only. Chart as submerged dol.

1.18) Charted dol Removal

DANGER TO NAVIGATION

Survey Summary

Survey Position: 34° 42' 19.9" N, 076° 40' 44.9" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2010-267.13:55:02 (09/24/2010)
GP Dataset: ChartGPs - Digitized
GP No.: 20
Charts Affected: 11547_1, 11541_2, 11545_1, 11543_1, 11544_1, 11520_1, 11009_1, 13003_1

Remarks:

200% SSS disproved existence of charted feature.

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	20	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Mooring/warping facility (MORFAC)
Attributes: CATMOR - 1:dolphin
 SORDAT - 20100924
 SORIND - US,US,Survey,H12266

Office Note: Do not concur, covered with 100% Side Scan only. Chart submerged dol.

1.19) Charted dol Removal

DANGER TO NAVIGATION

Survey Summary

Survey Position: 34° 42' 18.9" N, 076° 40' 44.5" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2010-267.13:55:17 (09/24/2010)
GP Dataset: ChartGPs - Digitized
GP No.: 21
Charts Affected: 11547_1, 11541_2, 11545_1, 11543_1, 11544_1, 11520_1, 11009_1, 13003_1

Remarks:

200% SSS disproved existence of charted feature.

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	21	0.00	000.0	Primary

Hydrographer Recommendations

Remove

S-57 Data

Geo object 1: Mooring/warping facility (MORFAC)
Attributes: CATMOR - 1:dolphin
 SORDAT - 20100924
 SORIND - US,US,Survey,H12266

Office Note: Concur with recommendation.

1.20) Charted subm groin Removal

DANGER TO NAVIGATION

Survey Summary

Survey Position: 34° 42' 16.9" N, 076° 40' 48.8" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2010-267.13:55:35 (09/24/2010)
GP Dataset: ChartGPs - Digitized
GP No.: 22
Charts Affected: 11547_1, 11541_2, 11545_1, 11543_1, 11544_1, 11520_1, 11009_1, 13003_1

Remarks:

200% SSS disproved existence of charted feature.

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	22	0.00	000.0	Primary

Hydrographer Recommendations

Remove

S-57 Data

Geo object 1: Obstruction (OBSTRN)
Attributes: CATOBS - 4:crib
 SORDAT - 20100924
 SORIND - US,US,Survey,H12266
 WATLEV - 3:always under water/submerged

Office Note: Ruined pier has been removed from RNC, recommend removing from ENC.

1.21) Charted subm groin Removal

DANGER TO NAVIGATION

Survey Summary

Survey Position: 34° 42' 16.6" N, 076° 40' 43.3" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2010-267.13:55:54 (09/24/2010)
GP Dataset: ChartGPs - Digitized
GP No.: 23
Charts Affected: 11547_1, 11541_2, 11545_1, 11543_1, 11544_1, 11520_1, 11009_1, 13003_1

Remarks:

200% SSS disproved existence of charted feature.

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	23	0.00	000.0	Primary

Hydrographer Recommendations

Remove

S-57 Data

Geo object 1: Obstruction (OBSTRN)
Attributes: SORDAT - 20100924
 SORIND - US,US,Survy,H12266
 WATLEV - 3:always under water/submerged

Office Note: Ruined pier has been removed from RNC. Only part of feature covered with 100% side scan. Recommend removing portion fully covered. Chart per HCell.

1.22) Charted subm groin Removal

DANGER TO NAVIGATION

Survey Summary

Survey Position: 34° 42' 21.2" N, 076° 40' 44.6" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2010-267.13:56:46 (09/24/2010)
GP Dataset: ChartGPs - Digitized
GP No.: 24
Charts Affected: 11547_1, 11541_2, 11545_1, 11543_1, 11544_1, 11520_1, 11009_1, 13003_1

Remarks:

200% SSS disproved existence of charted feature.

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	24	0.00	000.0	Primary

Hydrographer Recommendations

Remove

S-57 Data

Geo object 1: Obstruction (OBSTRN)
Attributes: SORDAT - 20100924
 SORIND - US,US,Survy,H12266
 WATLEV - 3:always under water/submerged

Office Notes: This refers to the same feature as previous item (1.21). Ruined pier has been removed from RNC. Only part of feature covered with 100% side scan. Recommend removing portion fully covered. Chart per HCell.

Feature Images

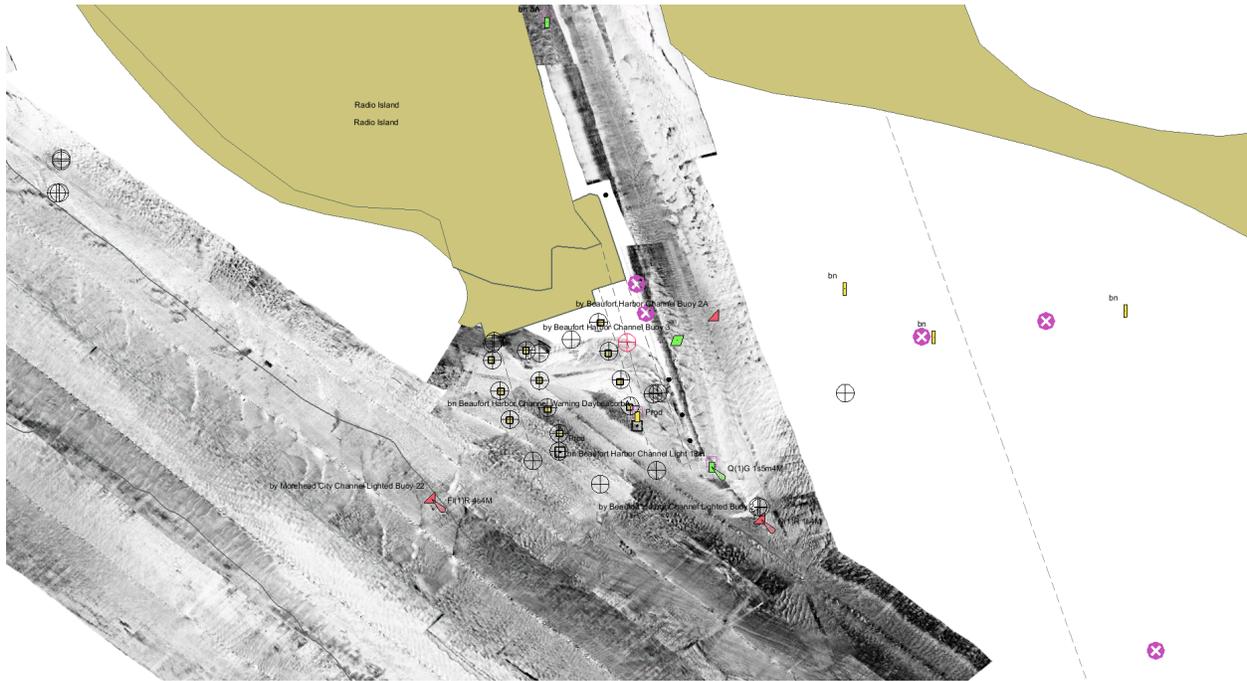


Figure 1.22.1

1.23) Charted pile Removal

DANGER TO NAVIGATION

Survey Summary

Survey Position: 34° 42' 37.5" N, 076° 40' 50.3" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2010-267.14:36:38 (09/24/2010)
GP Dataset: ChartGPs - Digitized
GP No.: 25
Charts Affected: 11547_1, 11541_2, 11545_1, 11543_1, 11544_1, 11520_1, 11009_1, 13003_1

Remarks:

200% SSS disproved existence of charted feature.

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	25	0.00	000.0	Primary

Hydrographer Recommendations

Remove

S-57 Data

Geo object 1: Pile (PILPNT)
Attributes: SORDAT - 20100924
 SORIND - US,US,Survy,H12266

Office Note: Concur with recommendation.

Feature Images

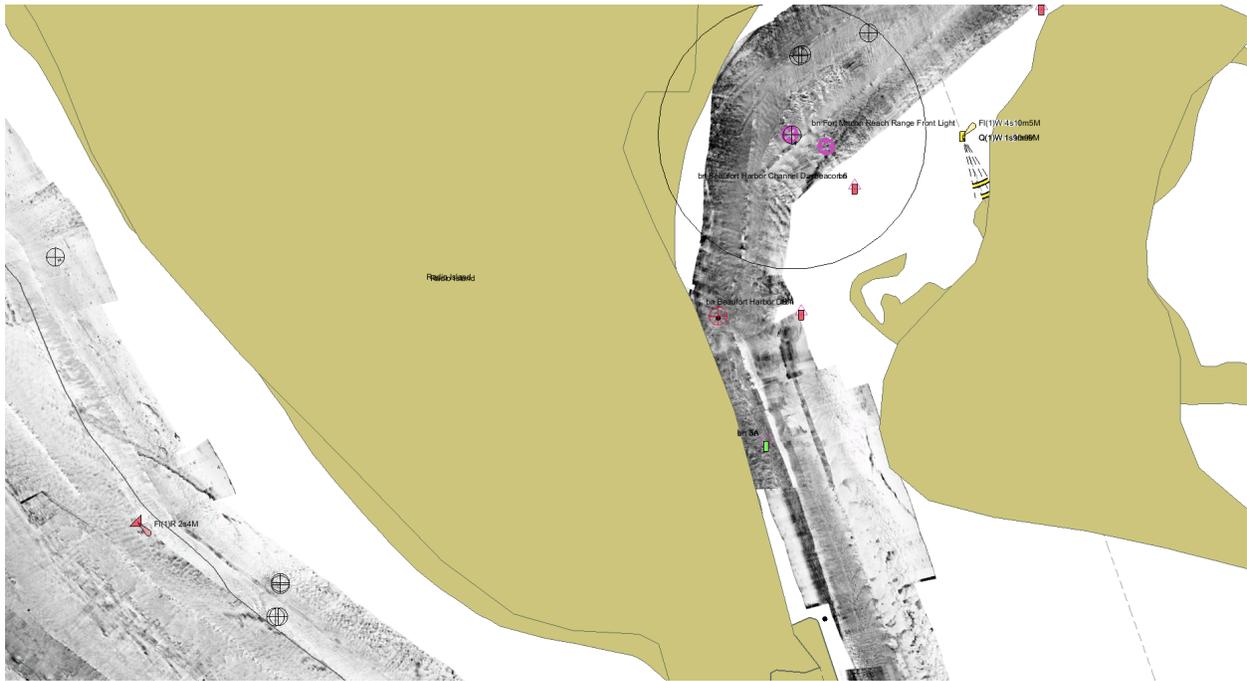


Figure 1.23.1

1.24) Charted pile Removal

DANGER TO NAVIGATION

Survey Summary

Survey Position: 34° 42' 54.2" N, 076° 40' 22.3" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2010-267.14:41:57 (09/24/2010)
GP Dataset: ChartGPs - Digitized
GP No.: 26
Charts Affected: 11547_1, 11541_2, 11545_1, 11543_1, 11544_1, 11520_1, 11009_1, 13003_1

Remarks:

200% SSS disproved existence of charted feature.

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	26	0.00	000.0	Primary

Hydrographer Recommendations

Remove

S-57 Data

Geo object 1: Pile (PILPNT)
Attributes: SORDAT - 20100924
 SORIND - US,US,Survy,H12266

Office Note: Do not concur, covered with 100% Side Scan only. Chart ruined pile

1.25) Charted pile Removal

DANGER TO NAVIGATION

Survey Summary

Survey Position: 34° 43' 00.8" N, 076° 40' 14.0" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2010-267.14:45:04 (09/24/2010)
GP Dataset: ChartGPs - Digitized
GP No.: 27
Charts Affected: 11547_1, 11541_2, 11545_1, 11543_1, 11544_1, 11520_1, 11009_1, 13003_1

Remarks:

200% SSS disproved existence of charted feature.

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	27	0.00	000.0	Primary

Hydrographer Recommendations

Remove

S-57 Data

Geo object 1: Pile (PILPNT)
Attributes: SORDAT - 20100924
 SORIND - US,US,Survey,H12266

Office Note: Do not concur, covered with 100% Side Scan only. Retain as charted

Feature Images



Figure 1.25.1

1.26) Charted pile Removal

DANGER TO NAVIGATION

Survey Summary

Survey Position: 34° 43' 01.9" N, 076° 40' 14.1" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2010-267.14:45:10 (09/24/2010)
GP Dataset: ChartGPs - Digitized
GP No.: 28
Charts Affected: 11547_1, 11541_2, 11545_1, 11543_1, 11544_1, 11520_1, 11009_1, 13003_1

Remarks:

200% SSS disproved existence of charted feature.

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	28	0.00	000.0	Primary

Hydrographer Recommendations

Remove

S-57 Data

Geo object 1: Pile (PILPNT)
Attributes: SORDAT - 20100924
 SORIND - US,US,Survy,H12266

Office Note: Do not concur, covered with 100% Side Scan only. Retain as charted

Feature Images



Figure 1.26.1

1.27) Charted mooring buoy Removal

DANGER TO NAVIGATION

Survey Summary

Survey Position: 34° 43' 09.6" N, 076° 41' 38.6" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2010-267.14:48:37 (09/24/2010)
GP Dataset: ChartGPs - Digitized
GP No.: 29
Charts Affected: 11547_1, 11541_2, 11541_3, 11545_1, 11543_1, 11544_1, 11520_1, 11009_1

Remarks:

200% SSS disproved existence of charted feature.

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	29	0.00	000.0	Primary

Hydrographer Recommendations

Remove

S-57 Data

Geo object 1: Mooring/warping facility (MORFAC)
Attributes: CATMOR - 7:mooring buoy
 SORDAT - 20100924
 SORIND - US,US,Survey,H12266

Office Note: Concur with recommendation.

Feature Images

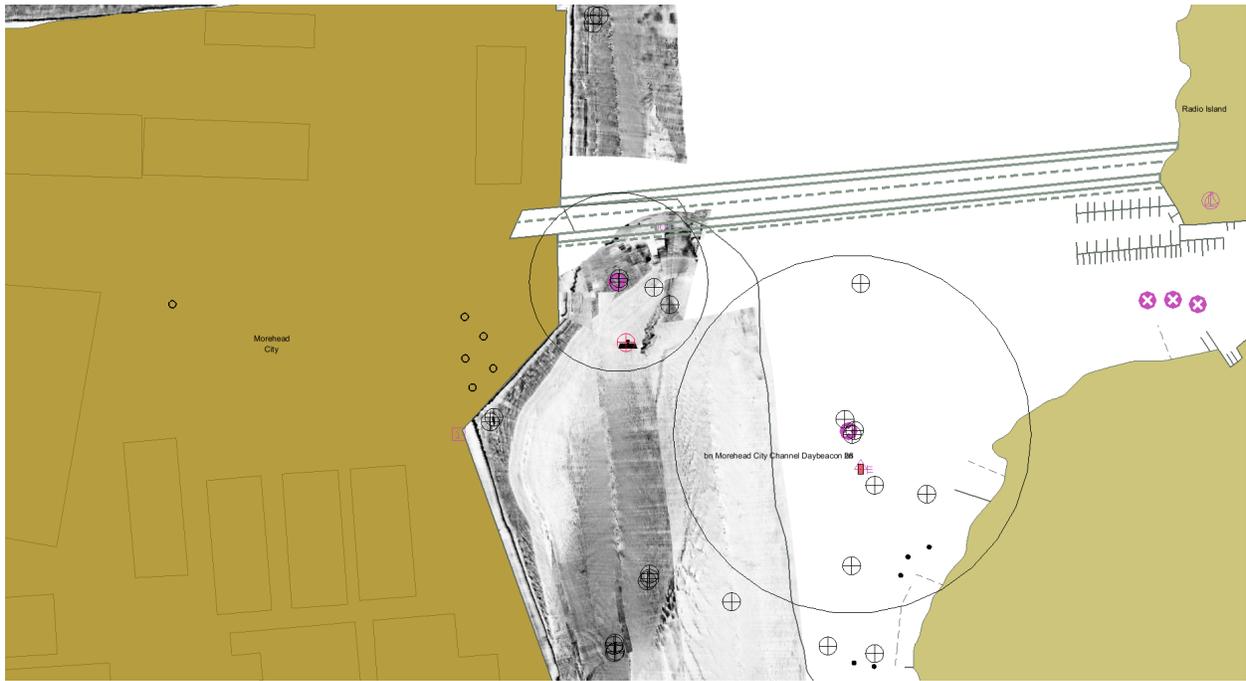


Figure 1.27.1

1.28) Charted pile Removal

DANGER TO NAVIGATION

Survey Summary

Survey Position: 34° 43' 24.0" N, 076° 41' 50.0" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2010-267.14:51:06 (09/24/2010)
GP Dataset: ChartGPs - Digitized
GP No.: 30
Charts Affected: 11547_1, 11541_2, 11541_3, 11545_1, 11543_1, 11544_1, 11520_1, 11009_1

Remarks:

200% SSS disproved existence of charted feature.

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	30	0.00	000.0	Primary

Hydrographer Recommendations

Remove

S-57 Data

Geo object 1: Pile (PILPNT)
Attributes: SORDAT - 20100924
 SORIND - US,US,Survy,H12266

Office Note: Do not concur, covered with 100% Side Scan only. Chart ruined pile.

Feature Images

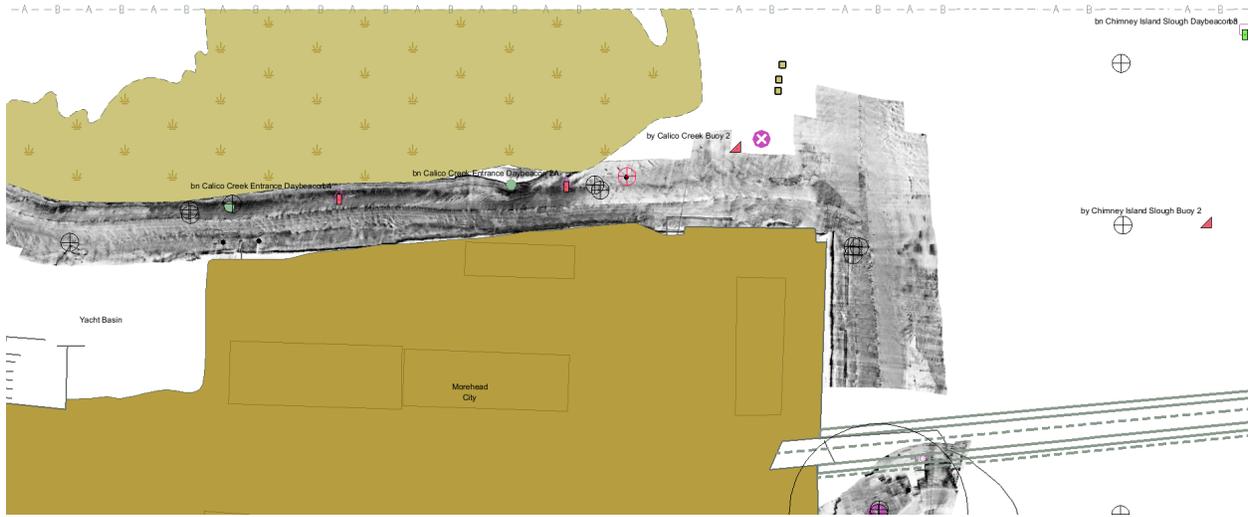


Figure 1.28.1

1.29) Charted pile Removal

DANGER TO NAVIGATION

Survey Summary

Survey Position: 34° 42' 44.7" N, 076° 42' 05.1" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2010-267.14:52:53 (09/24/2010)
GP Dataset: ChartGPs - Digitized
GP No.: 31
Charts Affected: 11547_1, 11541_2, 11541_3, 11545_1, 11543_1, 11520_1, 11009_1

Remarks:

200% SSS disproved existence of charted feature.

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	31	0.00	000.0	Primary

Hydrographer Recommendations

Remove

S-57 Data

Geo object 1: Pile (PILPNT)
Attributes: SORDAT - 20100924
 SORIND - US,US,Survey,H12266

Office Note: Do not concur. Coverage is questionable. Retain as charted.

1.30) Charted pile Removal

DANGER TO NAVIGATION

Survey Summary

Survey Position: 34° 42' 52.7" N, 076° 43' 36.1" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2010-267.15:05:09 (09/24/2010)
GP Dataset: ChartGPs - Digitized
GP No.: 32
Charts Affected: 11547_1, 11541_3, 11545_1, 11543_1, 11520_1, 11009_1

Remarks:

200% SSS disproved existence of charted feature.

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	32	0.00	000.0	Primary

Hydrographer Recommendations

Removal

S-57 Data

Geo object 1: Pile (PILPNT)
Attributes: SORDAT - 20100924
 SORIND - US,US,Survey,H12266

Office Note: Do not concur, covered with 100% Side Scan only. Chart ruined pile.

Feature Images

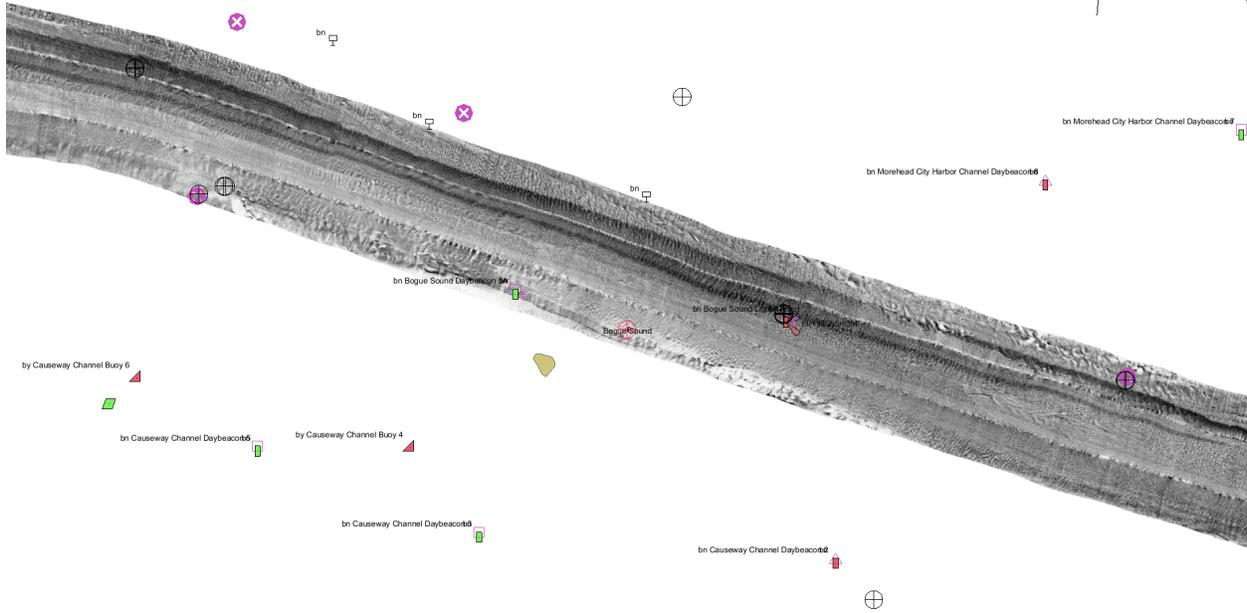


Figure 1.30.1

1.31) Charted pile Removal

DANGER TO NAVIGATION

Survey Summary

Survey Position: 34° 43' 11.5" N, 076° 44' 43.7" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2010-267.15:07:56 (09/24/2010)
GP Dataset: ChartGPs - Digitized
GP No.: 33
Charts Affected: 11547_1, 11541_3, 11545_1, 11543_1, 11520_1, 11009_1

Remarks:

200% SSS disproved existence of charted feature.

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	33	0.00	000.0	Primary

Hydrographer Recommendations

Remove

S-57 Data

Geo object 1: Pile (PILPNT)
Attributes: SORDAT - 20100924
 SORIND - US,US,Survy,H12266

Office Note: Concur with recommendation.

Feature Images

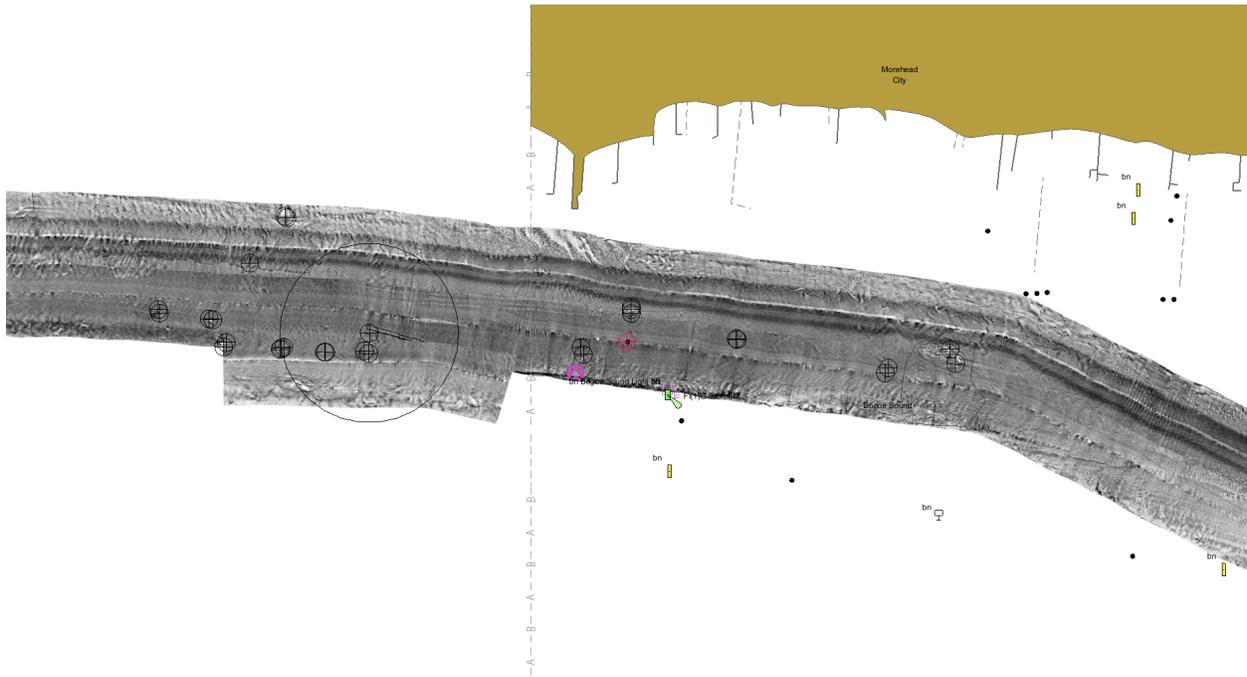


Figure 1.31.1

1.32) Charted pile Removal

DANGER TO NAVIGATION

Survey Summary

Survey Position: 34° 43' 17.5" N, 076° 45' 35.3" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2010-267.15:10:33 (09/24/2010)
GP Dataset: ChartGPs - Digitized
GP No.: 34
Charts Affected: 11541_3, 11545_1, 11543_1, 11520_1, 11009_1

Remarks:

200% SSS disproved existence of charted feature.

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	34	0.00	000.0	Primary

Hydrographer Recommendations

Remove

S-57 Data

Geo object 1: Pile (PILPNT)
Attributes: SORDAT - 20100924
 SORIND - US,US,Survy,H12266

Office Note: Do not concur, covered with 100% Side Scan only. Chart ruined pile.

Feature Images

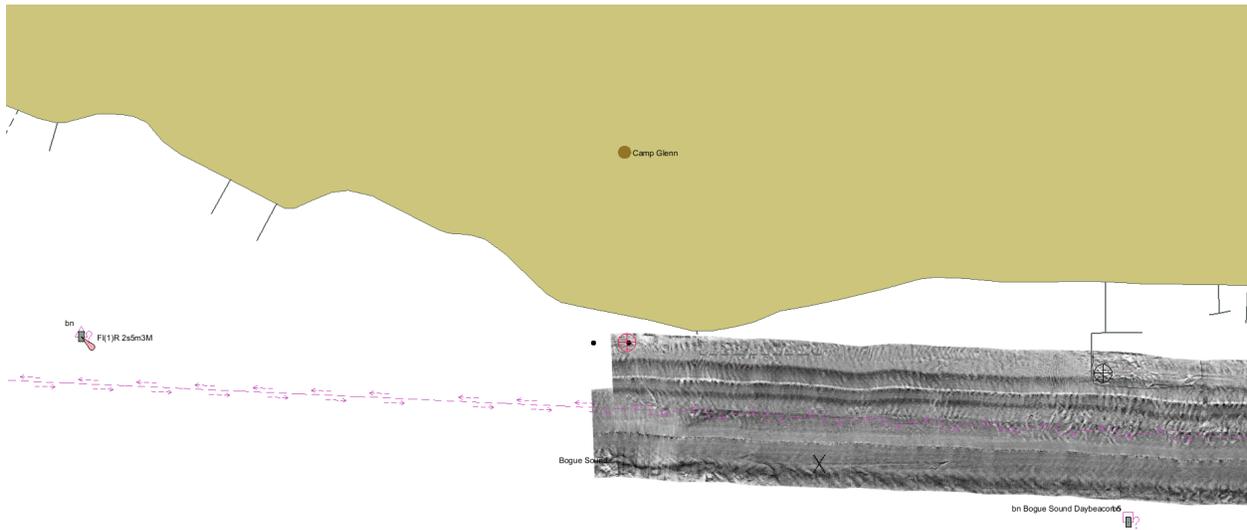


Figure 1.32.1

1.33) Charted ruins Removal

DANGER TO NAVIGATION

Survey Summary

Survey Position: 34° 41' 59.4" N, 076° 40' 49.1" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2010-267.15:20:28 (09/24/2010)
GP Dataset: ChartGPs - Digitized
GP No.: 35
Charts Affected: 11547_1, 11541_2, 11545_1, 11543_1, 11544_1, 11520_1, 11009_1, 13003_1

Remarks:

200% SSS disproved existence of charted feature.

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	35	0.00	000.0	Primary

Hydrographer Recommendations

Remove

S-57 Data

Geo object 1: Obstruction (OBSTRN)
Attributes: SORDAT - 20100924
 SORIND - US,US,Survey,H12266
 WATLEV - 3:always under water/submerged

Office Note: Concur with recommendation.

Feature Images

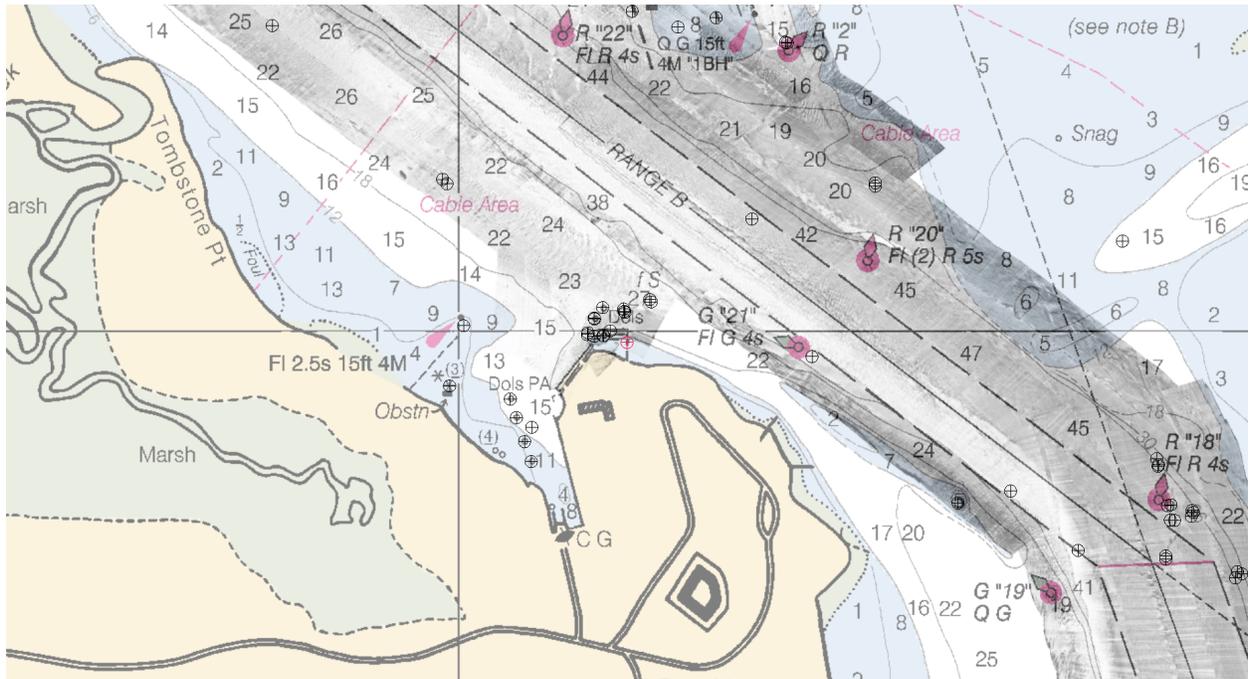


Figure 1.33.1

1.34) Charted 5ft REP 1983 Removal

DANGER TO NAVIGATION

Survey Summary

Survey Position: 34° 43' 03.0" N, 076° 44' 14.8" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2010-267.15:28:28 (09/24/2010)
GP Dataset: ChartGPs - Digitized
GP No.: 36
Charts Affected: 11547_1, 11541_3, 11545_1, 11543_1, 11520_1, 11009_1

Remarks:

200% SSS disproved existence of charted feature.

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	36	0.00	000.0	Primary

Hydrographer Recommendations

Remove

S-57 Data

Geo object 1: Obstruction (OBSTRN)
Attributes: SORDAT - 20100924
 SORIND - US,US,Survy,H12266
 WATLEV - 3:always under water/submerged

Office Note: Concur with recommendation.

Feature Images

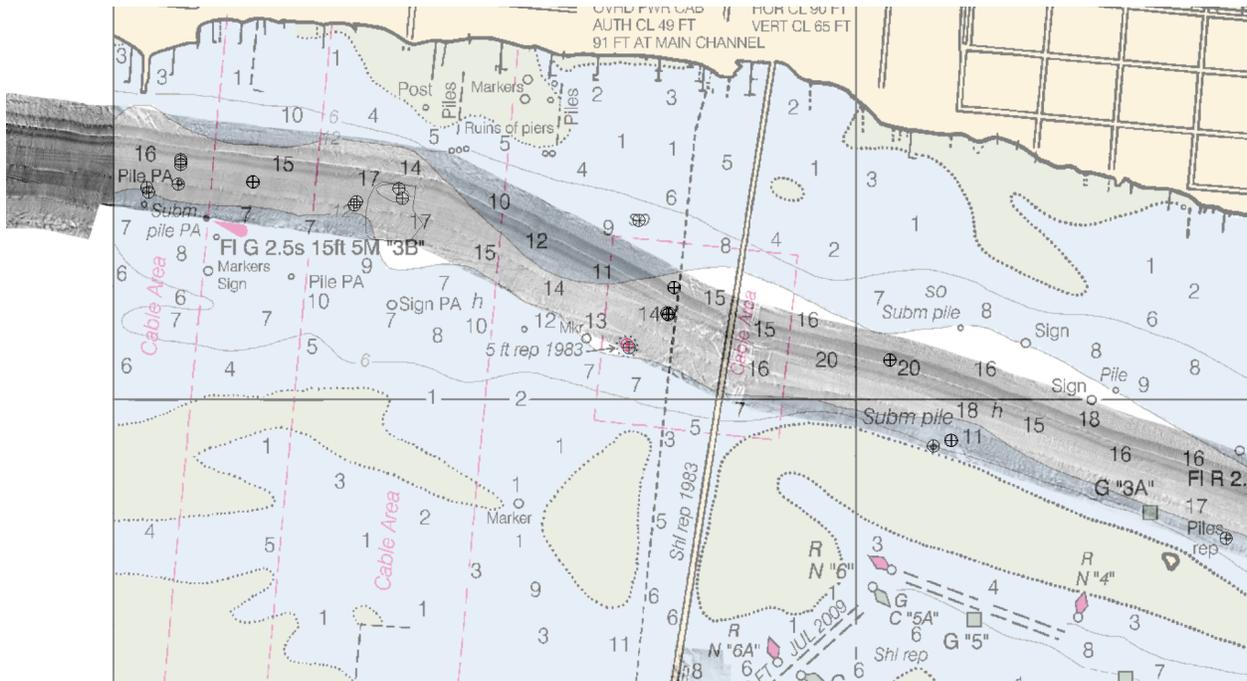


Figure 1.34.1

1.35) Charted Subm Pile Removal

DANGER TO NAVIGATION

Survey Summary

Survey Position: 34° 43' 10.4" N, 076° 44' 46.0" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2010-267.15:30:23 (09/24/2010)
GP Dataset: ChartGPs - Digitized
GP No.: 37
Charts Affected: 11547_1, 11541_3, 11545_1, 11543_1, 11520_1, 11009_1

Remarks:

200% SSS disproved existence of charted feature.

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	37	0.00	000.0	Primary

Hydrographer Recommendations

Remove

S-57 Data

Geo object 1: Pile (PILPNT)
Attributes: SORDAT - 20100924
 SORIND - US,US,Survey,H12266

Office Note: Do not concur, covered with 100% Side Scan only. Retain as charted

H12266 AWOIS Report

Registry Number: H12266
State: North Carolina
Locality: Morehead City , NC
Sub-locality: Morehead City to Beaufort Inlet
Project Number: S-F901-NRT2-10
Survey Dates: 07/13/2010 - 09/15/2010

Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
11547	37th	08/01/2007	1:15,000 (11547_1)	USCG LNM: 05/04/2010 (05/25/2010) NGA NTM: 07/20/2002 (05/29/2010)
11541	39th	03/01/2010	1:40,000 (11541_3)	USCG LNM: 05/04/2010 (05/25/2010) NGA NTM: None (05/29/2010)
11541	39th	03/01/2010	1:40,000 (11541_2)	USCG LNM: 05/04/2010 (05/25/2010) NGA NTM: 09/01/2001 (05/29/2010)
11545	63rd	04/01/2008	1:40,000 (11545_1)	USCG LNM: 05/04/2010 (05/25/2010) NGA NTM: 07/20/2002 (05/29/2010)
11544	39th	07/01/2005	1:80,000 (11544_1)	USCG LNM: 05/04/2010 (05/25/2010) NGA NTM: 07/20/2002 (05/29/2010)
11543	23rd	06/01/2005	1:80,000 (11543_1)	USCG LNM: 05/04/2010 (05/25/2010) NGA NTM: 05/23/2009 (05/29/2010)
11520	43rd	10/01/2008	1:432,720 (11520_1)	[L]NTM: ?
11009	38th	12/01/2006	1:1,200,000 (11009_1)	[L]NTM: ?
13003	49th	04/01/2007	1:1,200,000 (13003_1)	[L]NTM: ?

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

Features

No.	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	Wreck	0.57 m	34° 43' 06.4" N	076° 42' 43.0" W	14639
1.2	Obstruction	2.95 m	34° 40' 31.1" N	076° 40' 23.7" W	10257
1.3	Wreck	4.60 m	34° 42' 56.2" N	076° 39' 54.8" W	14632
1.4	Obstruction	4.59 m	34° 42' 46.9" N	076° 40' 46.7" W	14633

1.5	Shoal	14.15 m	34° 42' 53.3" N	076° 41' 40.0" W	14634
1.6	Wreck	3.52 m	34° 43' 06.9" N	076° 41' 28.9" W	14635
1.7	Shoal	10.61 m	34° 42' 53.5" N	076° 42' 24.3" W	14637
1.8	Shoal	5.95 m	34° 43' 02.8" N	076° 42' 18.9" W	14638
1.9	Obstruction	5.51 m	34° 43' 11.1" N	076° 44' 55.1" W	---
1.10	Obstruction	10.74 m	34° 43' 11.9" N	076° 41' 38.9" W	14636

1 - Tree

1.1) AWOIS 14639

Primary Feature for AWOIS Item #14639

Search Position: 34° 43' 06.0" N, 076° 42' 43.0" W
Historical Depth: [None]
Search Radius: 0
Search Technique: [None]
Technique Notes: [None]

History Notes:

L416 (84) USPS; Wreck, barley visible at high tide, PA, 34-43-06N, 76-42-43W. (Entered 7/21/09 KAK)

S-F901-NRT2-10 // H12266,2010: Visual and VBES investigation revealed no sign of charted visible wreck. This area is a baring shoal observed at MLLW.

Recommend Removal .RWR

Survey Summary

Survey Position: 34° 43' 06.4" N, 076° 42' 43.0" W
Least Depth: 0.57 m (= 1.87 ft = 0.311 fm = 0 fm 1.87 ft)
TPU (±1.96σ): THU (TPEh) ±1.960 m ; TVU (TPEv) ±0.339 m
Timestamp: 2010-202.15:33:06.000 (07/21/2010)
DP Dataset: h_12266 / nrt2_1210_dp / 2010-202 / dps_07212010
Profile/Beam: 1/1
Charts Affected: 11547_1, 11541_3, 11545_1, 11543_1, 11520_1, 11009_1

Remarks:

Baring shoal at location, no wreck exists, recommend removal

Feature Correlation

Address	Feature	Range	Azimuth	Status
h_12266/nrt2_1210_dp/2010-202/dps_07212010	1/1	0.00	000.0	Primary
AWOIS_EXPORT	AWOIS # 14639	4.85	006.8	Secondary

Hydrographer Recommendations

Remove charted vis wk

Cartographically-Rounded Depth (Affected Charts):

2ft (11547_1, 11541_3, 11545_1, 11543_1)

0 ¼fm (11520_1, 11009_1)

S-57 Data

Geo object 1: Wreck (WRECKS)
Attributes: CONVIS - 2:not visual conspicuous
QUASOU - 1:depth known
SORDAT - 20100915
SORIND - US,US,survey,H12266
TECSOU - 12:found by levelling
VALSOU - 0.569 m

Office Notes

Office Note: Concur with hydrographer recommendations.

Feature Images

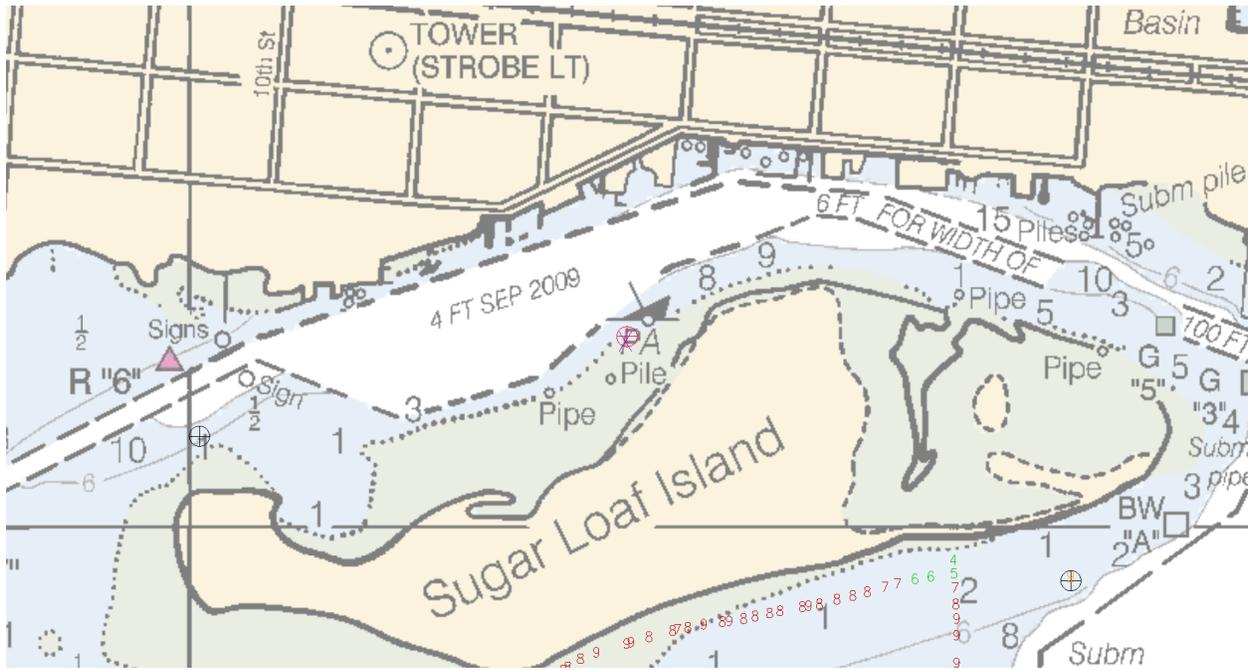


Figure 1.1.1

1.2) AWOIS 10257

Primary Feature for AWOIS Item #10257

Search Position: 34° 40' 30.7" N, 076° 40' 23.6" W
Historical Depth: 4.21 m
Search Radius: 0
Search Technique: [None]
Technique Notes: [None]

History Notes:

H10827--OPR-F344-WH-98; DURING MAINSCHEME HYDROGRAPHY A SIGNIFICANT SIDE SCAN SONAR CONTACT (30986.3P) WAS FOUND. DIVERS INVESTIGATED THE CONTACT AND FOUND A PILE OF RUBBLE CONSISTING OF LARGE BOULDERS AND A PORTION OF ANCHOR CHAIN IN SURROUNDING DEPTHS OF 17 FEET. A LEAST DEPTH OF 13.8 FEET (MLLW) WAS OBTAINED ON A ROCK ON TOP OF THE PILE. (ENTERED 3/99 BY MBH)

S-F901-NRT2-10, H12266,2010: 200% SSS covered this area in shallow water. Naturally occurring bottom with sand wave was all that could be found.

Recommend Removal. RWR

Survey Summary

Survey Position: 34° 40' 31.1" N, 076° 40' 23.7" W
Least Depth: 2.95 m (= 9.69 ft = 1.615 fm = 1 fm 3.69 ft)
TPU (±1.96σ): THU (TPEh) ±1.962 m ; TVU (TPEv) ±0.340 m
Timestamp: 2010-210.12:29:37.005 (07/29/2010)
Survey Line: h_12266 / nrt2_1210_sb / 2010-210 / 14p100
Profile/Beam: 1157/1
Charts Affected: 11547_1, 11541_2, 11545_1, 11543_1, 11544_1, 11520_1, 11009_1, 13003_1

Remarks:

200% SSS covered this area in shallow water. Naturally occurring bottom with sand wave was all that could be found.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h_12266/nrt2_1210_sb/2010-210/14p100	1157/1	0.00	000.0	Primary
AWOIS_EXPORT	AWOIS # 10257	13.50	344.7	Secondary

Hydrographer Recommendations

Remove charted Obstrn.

Cartographically-Rounded Depth (Affected Charts):

9ft (11547_1, 11541_2, 11545_1, 11543_1, 11544_1)

1 ½fm (11520_1, 11009_1, 13003_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)
Attributes: QUASOU - 1:depth known
SORDAT - 20100915
SORIND - US,US,survey,H12266
TECSOU - 2:found by side scan sonar
VALSOU - 2.954 m

Office Notes

Office Note: Concur with hydrographer recommendations.

Feature Images

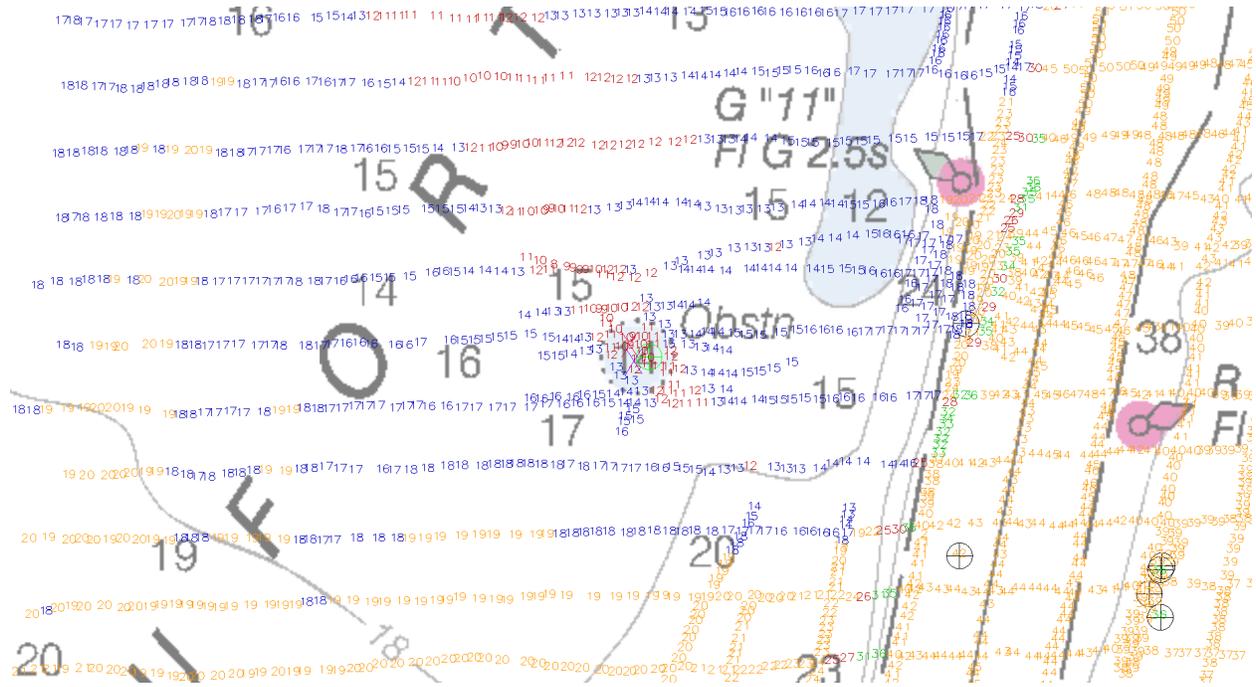


Figure 1.2.1

1.3) AWOIS 14632

Primary Feature for AWOIS Item #14632

Search Position: 34° 42' 55.9" N, 076° 39' 54.5" W
Historical Depth: [None]
Search Radius: 75
Search Technique: ES, MB, S2
Technique Notes: [None]

History Notes:

LNM 10 (2004) 5th Dist. - A vessel has sunk in Taylor's Creek in approximate position 34-42.930N 076-39.91W in 16 feet of water. The vessel is marked with

an orange fender with a quick flashing strobe light. (Entered 7/21/09 KAK)

S-F901-NRT2-10, H12266,2010: 200% SSS found no contacts of wk. Area is a heavy worked PC dockage area

along the ICW at Beaufort waterfront.

Recommend Removal.RWR

Survey Summary

Survey Position: 34° 42' 56.2" N, 076° 39' 54.8" W
Least Depth: 4.60 m (= 15.10 ft = 2.516 fm = 2 fm 3.10 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.963 m ; TVU (TPEv) ± 0.340 m
Timestamp: 2010-221.15:43:27.960 (08/09/2010)
Survey Line: h_12266 / nrt2_1210_sb / 2010-221 / 003_1542
Profile/Beam: 759/1
Charts Affected: 11547_1, 11541_2, 11545_1, 11543_1, 11544_1, 11520_1, 11009_1, 13003_1

Remarks:

200% SSS found no contact of wk.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h_12266/nrt2_1210_sb/2010-221/003_1542	759/1	0.00	000.0	Primary
AWOIS_EXPORT	AWOIS # 14632	12.25	318.8	Secondary

Hydrographer Recommendations

Remove charted Wk

Cartographically-Rounded Depth (Affected Charts):

15ft (11547_1, 11541_2, 11545_1, 11543_1, 11544_1)

2 ½fm (11520_1, 11009_1, 13003_1)

S-57 Data

Geo object 1: Wreck (WRECKS)
Attributes: SORDAT - 20100915
SORIND - US,US,survy,H12266
TECSOU - 1:found by echo-sounder
VALSOU - 4.602 m

Office Notes

Office note: This sounding relates to AWOIS #14632. Concur with hydrographer recommendation.

1.4) AWOIS 14633

Primary Feature for AWOIS Item #14633

Search Position: 34° 42' 44.0" N, 076° 40' 47.0" W
Historical Depth: [None]
Search Radius: 150
Search Technique: ES, MB, S2
Technique Notes: [None]

History Notes:

L1397 (74); Subm Piles PA, two subm piles PA charted at 34-42-44N, 76-40-47W and 34-42-43.7N, 76-40-45.4W. (Entered 7/21/09 KAK)

S-F901-NRT2-10, H12266,2010: 200% sss showed no significant contacts.

Recommend Removal.RWR

Survey Summary

Survey Position: 34° 42' 46.9" N, 076° 40' 46.7" W
Least Depth: 4.59 m (= 15.06 ft = 2.510 fm = 2 fm 3.06 ft)
TPU (±1.96σ): THU (TPEh) ±1.964 m ; TVU (TPEv) ±0.341 m
Timestamp: 2010-194.16:52:39.781 (07/13/2010)
Survey Line: h_12266 / nrt2_1210_sb / 2010-194 / 075_1652
Profile/Beam: 675/1
Charts Affected: 11547_1, 11541_2, 11545_1, 11543_1, 11544_1, 11520_1, 11009_1, 13003_1

Remarks:

weak contact that upon further development showed no significance.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h_12266/nrt2_1210_sb/2010-194/075_1652	675/1	0.00	000.0	Primary
h_12266/nrt2_1210_klein3000hf_100sss/2010-221/sss100809144000	0001	3.73	243.6	Secondary
AWOIS_EXPORT	AWOIS # 14633	88.70	004.3	Secondary

Hydrographer Recommendations

Remove Subm Piles from charts.

S-57 Data

Geo object 1: Obstruction (OBSTRN)
Attributes: QUASOU - 1:depth known
TECSOU - 2:found by side scan sonar
VALSOU - 4.591 m
WATLEV - 3:always under water/submerged

Office Notes

Office Note: Concur with hydrographer recommendations, review found no feature.

1.5) AWOIS 14634

Primary Feature for AWOIS Item #14634

Search Position: 34° 42' 53.0" N, 076° 41' 40.2" W
Historical Depth: [None]
Search Radius: 150
Search Technique: ES, MB, S2
Technique Notes: [None]

History Notes:

BP 179616 (2003) USACOE : Post Dredge Survey; Obstrn charted inside turning basin at 34-42-53.0N, 76-41-40.2W. (Entered 7/21/09 KAK)

S-F901-NRT2-10: H12266,2010: 200% SSS showed no contacts of reported feature.

Recommend Removal.RWR

Survey Summary

Survey Position: 34° 42' 53.3" N, 076° 41' 40.0" W
Least Depth: 14.15 m (= 46.41 ft = 7.736 fm = 7 fm 4.41 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.986 m ; TVU (TPEv) ± 0.353 m
Timestamp: 2010-216.14:51:27.159 (08/04/2010)
Survey Line: h_12266 / nrt2_1210_sb / 2010-216 / 6p200a
Profile/Beam: 935/1
Charts Affected: 11547_1, 11541_2, 11541_3, 11545_1, 11543_1, 11544_1, 11520_1, 11009_1

Remarks:

200% SSS showed no contacts of reported feature.

SAR: AWOIS 14634, not symbolized in chart 11547 or 11545. Field submitted a SOUNDG, but may need WRECK.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h_12266/nrt2_1210_sb/2010-216/6p200a	935/1	0.00	000.0	Primary
AWOIS_EXPORT	AWOIS # 14634	10.49	031.2	Secondary

Hydrographer Recommendations

Remove

Cartographically-Rounded Depth (Affected Charts):

46ft (11547_1, 11541_2, 11541_3, 11545_1, 11543_1, 11544_1)

7 ¾fm (11520_1, 11009_1)

S-57 Data

Geo object 1: Sounding (SOUNDG)

Attributes: EXPSOU - 1:within the range of depth of the surrounding depth area

QUASOU - 1:depth known

SORDAT - 20100915

SORIND - US,US,survey,H12266

TECSOU - 1:found by echo-sounder

Office Notes

Office Note: Concur with hydrographer recommendations. No evidence of AWOIS item.

1.6) AWOIS 14635

Primary Feature for AWOIS Item #14635

Search Position: 34° 43' 06.3" N, 076° 41' 28.6" W
Historical Depth: [None]
Search Radius: 200
Search Technique: ES, MB, S2
Technique Notes: [None]

History Notes:

Unknown source; Charted subm wreck appears starting in 1946 at 34-43-6.3N, 76-41-28.6W. (Entered 7/21/09 KAK)

S-F901-NRT2-10, H12266,2010: 200% SSS coverage was conducted where practical. No sign of WK exist, though may be buried under shoal.

Recommendation: Remove.RWR

Survey Summary

Survey Position: 34° 43' 06.9" N, 076° 41' 28.9" W
Least Depth: 3.52 m (= 11.56 ft = 1.927 fm = 1 fm 5.56 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.963 m ; TVU (TPEv) ± 0.340 m
Timestamp: 2010-202.17:16:50.434 (07/21/2010)
Survey Line: h_12266 / nrt2_1210_sb / 2010-202 / 011_1715
Profile/Beam: 1838/1
Charts Affected: 11547_1, 11541_2, 11541_3, 11545_1, 11543_1, 11544_1, 11520_1, 11009_1

Remarks:

SSS conducted shows hard bottom shoal. Could not decertify any hard line features of a WK, however it may be buried.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h_12266/nrt2_1210_sb/2010-202/011_1715	1838/1	0.00	000.0	Primary
AWOIS_EXPORT	AWOIS # 14635	18.93	333.7	Secondary

Hydrographer Recommendations

Remove.

Cartographically-Rounded Depth (Affected Charts):

11ft (11547_1, 11541_2, 11541_3, 11545_1, 11543_1, 11544_1)

1 ¼fm (11520_1, 11009_1)

S-57 Data

Geo object 1: Wreck (WRECKS)
Attributes: SORDAT - 20100915
SORIND - US,US,survey,H12266
VALSOU - 3.524 m

Office Notes

Office Note: AWOIS 14635. No evidence of wreck, but SSS only covers partial radius. Reviewer recommends retain until full MBES coverage can disprove. Changed from SOUNDG to WRECKS.

Feature Images

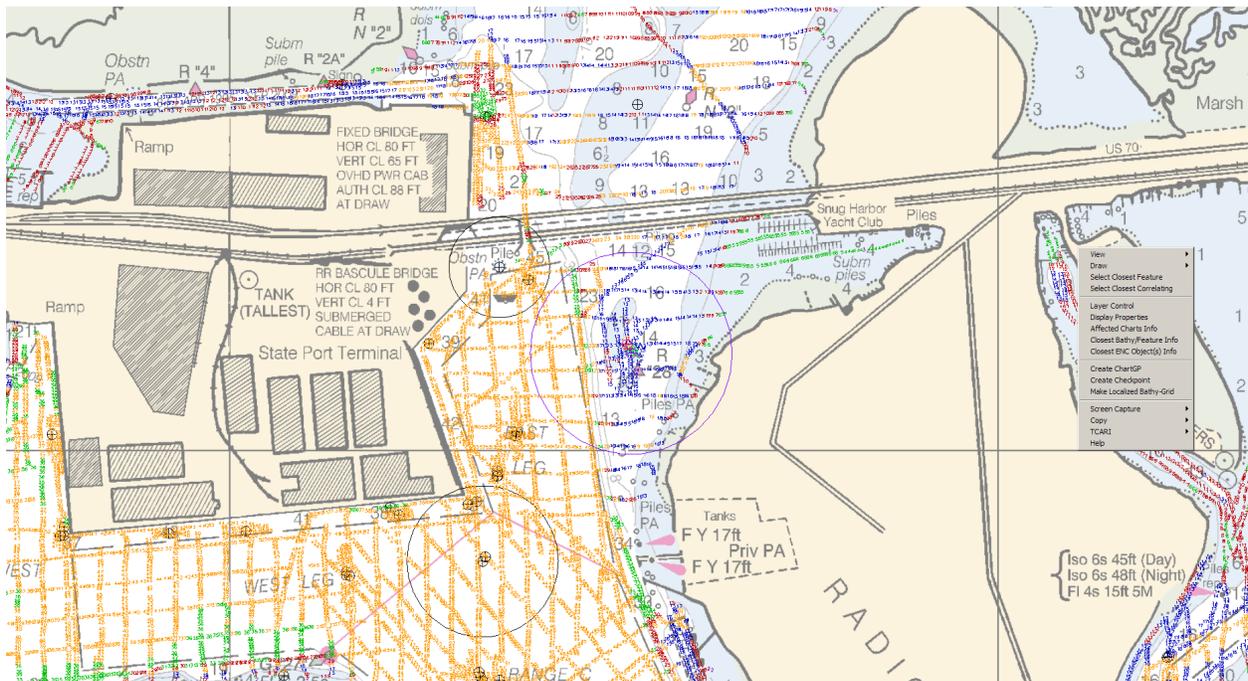


Figure 1.6.1

1.7) AWOIS 14637

Primary Feature for AWOIS Item #14637

Search Position: 34° 42' 54.0" N, 076° 42' 24.0" W
Historical Depth: [None]
Search Radius: 150
Search Technique: ES, MB, S2
Technique Notes: [None]

History Notes:

L416 (84) USPS; Charted Sign changed to Submerged Pile, 34-42-54N, 76-42-24W. (Entered 7/21/09 KAK)

S-F901-NRT2-10,H12266,2010: 200% SSS found no contacts of pile.

Recommend Removal. RWR

Survey Summary

Survey Position: 34° 42' 53.5" N, 076° 42' 24.3" W
Least Depth: 10.61 m (= 34.80 ft = 5.800 fm = 5 fm 4.80 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.977 m ; TVU (TPEv) ± 0.347 m
Timestamp: 2010-201.16:33:41.814 (07/20/2010)
Survey Line: h_12266 / nrt2_1210_sb / 2010-201 / 010_1631
Profile/Beam: 2193/1
Charts Affected: 11547_1, 11541_2, 11541_3, 11545_1, 11543_1, 11520_1, 11009_1

Remarks:

No significant contact located within 200% SSS coverage.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h_12266/nrt2_1210_sb/2010-201/010_1631	2193/1	0.00	000.0	Primary
AWOIS_EXPORT	AWOIS # 14637	18.12	200.7	Secondary

Hydrographer Recommendations

Remove Subm Pile.

Cartographically-Rounded Depth (Affected Charts):

35ft (11547_1, 11541_2, 11541_3, 11545_1, 11543_1)

5 ¾fm (11520_1, 11009_1)

S-57 Data

Geo object 1: Pile (PILPNT)
Attributes: SORDAT - 20100915
SORIND - US,US,survey,H12266

Office Notes

Office Note: concur with removal. AWOIS #14637.

Feature Images

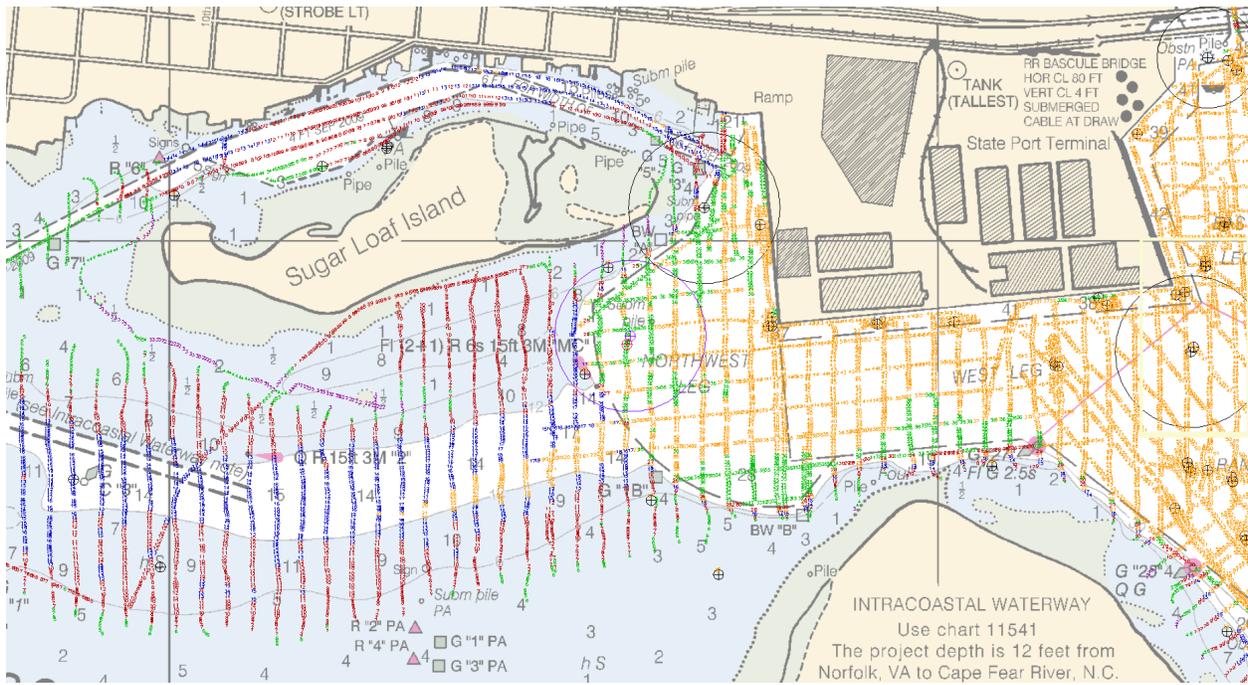


Figure 1.7.1

1.8) AWOIS 14638

Primary Feature for AWOIS Item #14638

Search Position: 34° 43' 02.2" N, 076° 42' 18.2" W
Historical Depth: [None]
Search Radius: 150
Search Technique: ES, MB, S2
Technique Notes: [None]

History Notes:

Unknown Source; Charted Pipe appears in 1974, and is changed to submerged in 1976, 43-43-2.2N, 76-42-18.2W. (Entered 7/21/09 KAK)

S-F901-NRT2-10, H12266,2010: 200% SSS operations showed no signs of reported feature.

Recommend Removal. RWR

Survey Summary

Survey Position: 34° 43' 02.8" N, 076° 42' 18.9" W
Least Depth: 5.95 m (= 19.53 ft = 3.255 fm = 3 fm 1.53 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.965 m ; TVU (TPEv) ± 0.341 m
Timestamp: 2010-201.16:14:24.609 (07/20/2010)
Survey Line: h_12266 / nrt2_1210_sb / 2010-201 / 005_1613
Profile/Beam: 1111/1
Charts Affected: 11547_1, 11541_2, 11541_3, 11545_1, 11543_1, 11520_1, 11009_1

Remarks:

No contact of subm pipe could be located with 200% SSS coverage.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h_12266/nrt2_1210_sb/2010-201/005_1613	1111/1	0.00	000.0	Primary
AWOIS_EXPORT	AWOIS # 14638	23.89	316.0	Secondary

Hydrographer Recommendations

Remove Subm Pipe.

Cartographically-Rounded Depth (Affected Charts):

19ft (11547_1, 11541_2, 11541_3, 11545_1, 11543_1)

3 ¼fm (11520_1, 11009_1)

S-57 Data

Geo object 1: Sounding (SOUNDG)

Attributes: EXPSOU - 2:shoaler than range of depth of the surrounding depth area

QUASOU - 1:depth known

SORDAT - 20100915

SORIND - US,US,survey,H12266

TECSOU - 1:found by echo-sounder

Office Notes

Office Note: concur with removal. AWOIS #14638.

1.9) AWOIS 14640

Survey Summary

Survey Position: 34° 43' 11.1" N, 076° 44' 55.1" W
Least Depth: 5.51 m (= 18.07 ft = 3.012 fm = 3 fm 0.07 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.964 m ; TVU (TPEv) ± 0.341 m
Timestamp: 2010-258.13:45:07.132 (09/15/2010)
Survey Line: h_12266 / nrt2_1210_sb / 2010-258 / 128_1345
Profile/Beam: 59/1
Charts Affected: 11541_3, 11545_1, 11543_1, 11520_1, 11009_1

Remarks:

Numerous subm dols scatted throughout area with low off bottom rise.
 Associated with Awois 14640.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h_12266/nrt2_1210_sb/2010-258/128_1345	59/1	0.00	000.0	Primary
h_12266/nrt2_1210_klein3000hf_200sss/2010-256/sss100913130500	0006	6.01	118.8	Secondary

Hydrographer Recommendations

Remove PA from Subm dols, and adjust symbolics.

Cartographically-Rounded Depth (Affected Charts):

18ft (11541_3, 11545_1, 11543_1)
 3fm (11520_1, 11009_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)
Attributes: CATOBS - 1:snag / stump
 QUASOU - 1:depth known
 SORDAT - 20100915
 SORIND - US,US,survy,H12266
 TECSOU - 1,2:found by echo-sounder,found by side scan sonar

VALSOU - 5.509 m

WATLEV - 3:always under water/submerged

Office Notes

Office Note: Concur with hydrographer recommendations.

Feature Images

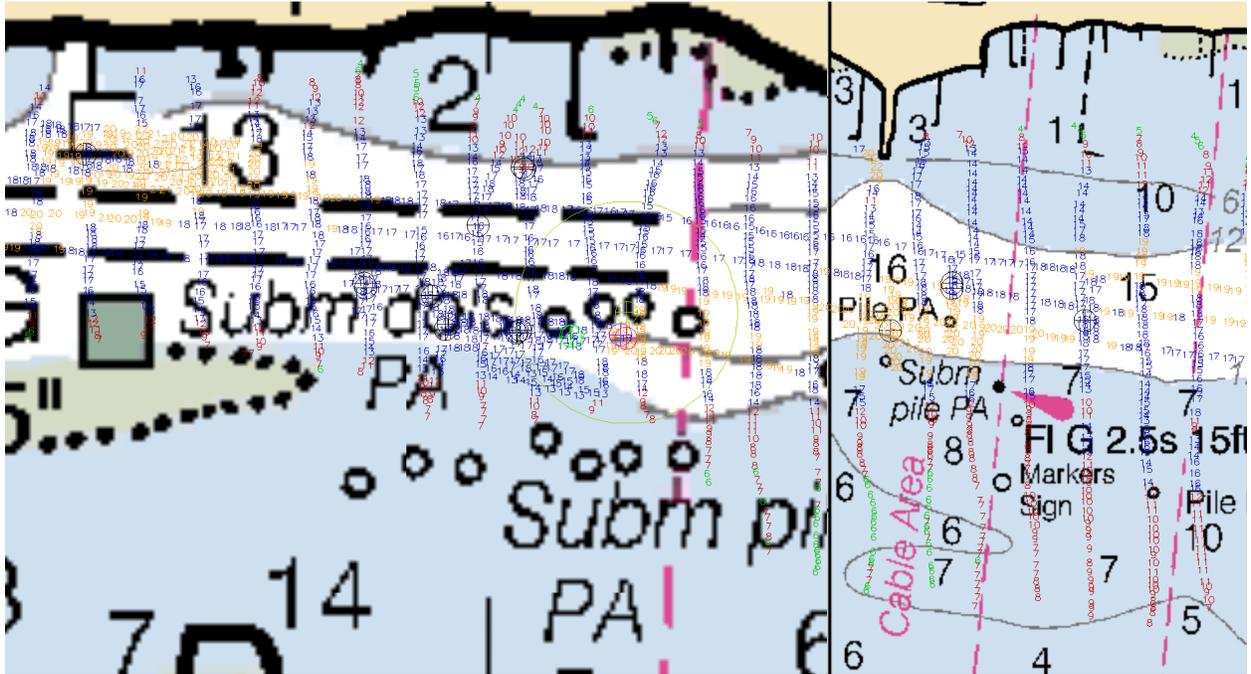


Figure 1.9.1

1.10) AWOIS 14636

Primary Feature for AWOIS Item #14636

Search Position: 34° 43' 11.8" N, 076° 41' 38.9" W
Historical Depth: [None]
Search Radius: 100
Search Technique: ES, MB, S2
Technique Notes: [None]

History Notes:

L1190 (80); Charted Obstn PA, pos. submerged tank at 34-43-11.8N, 76-41-38.9. (Entered 7/21/09 KAK)

S-F901-NRT2-10, H12266,2010: 200% SSS was conducted where safe, due to current and bridge proximity. No

significant contacts were made, though one small contact was developed that was later deemed insignificant. Shoal sounding was aquired for chart.

Recommend: Removal.RWR

Survey Summary

Survey Position: 34° 43' 11.9" N, 076° 41' 38.9" W
Least Depth: 10.74 m (= 35.24 ft = 5.873 fm = 5 fm 5.24 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.978 m ; TVU (TPEv) ± 0.348 m
Timestamp: 2010-258.17:06:41.003 (09/15/2010)
Survey Line: h_12266 / nrt2_1210_sb / 2010-258 / 003_1706
Profile/Beam: 728/1
Charts Affected: 11547_1, 11541_2, 11541_3, 11545_1, 11543_1, 11544_1, 11520_1, 11009_1

Remarks:

Sounding on mound.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h_12266/nrt2_1210_sb/2010-258/003_1706	728/1	0.00	000.0	Primary
AWOIS_EXPORT	AWOIS # 14636	4.45	012.6	Secondary
h_12266/nrt2_1210_sb/2010-216/6p200b	6437/1	40.27	284.9	Secondary
h_12266/nrt2_1210_klein3000hf_200sss/2010-216/sss100804160700	0004	63.54	297.5	Secondary (grouped)

Hydrographer Recommendations

Apply Sounding and remove Obstn PA

Cartographically-Rounded Depth (Affected Charts):

35ft (11547_1, 11541_2, 11541_3, 11545_1, 11543_1, 11544_1)

5 ¾fm (11520_1, 11009_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: QUASOU - 1:depth known

SORDAT - 20100915

SORIND - US,US,nsurf,H12266

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

VALSOU - 10.740 m

Office Notes

Office Note: Concur with hydrographer recommendations.

Feature Images

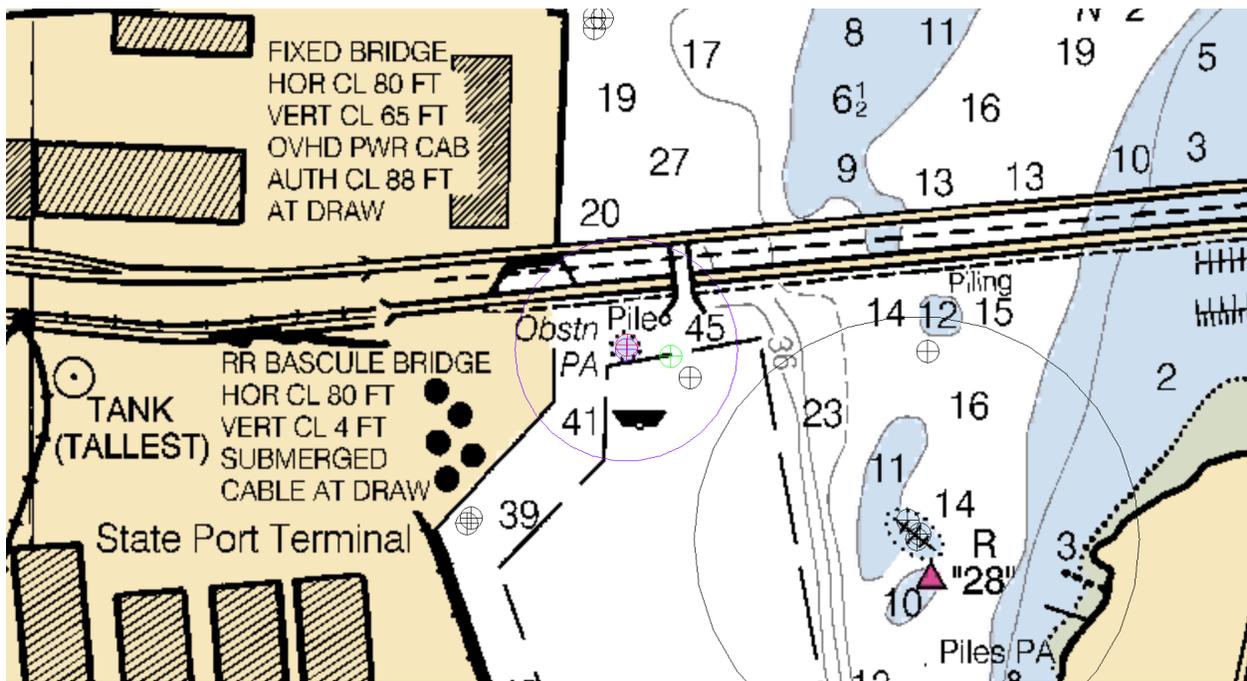


Figure 1.10.1



Annemieke Raymond <annemieke.raymond@noaa.gov>

Morehead City Harbor Range B Channel Shoaling

4 messages

Peter Holmberg <peter.holmberg@noaa.gov>

Thu, Jan 5, 2012 at 2:23 PM

To: Kyle Ward <kyle.ward@noaa.gov>

Cc: David Zezula <david.j.zezula@noaa.gov>, Annemieke Raymond <annemieke.raymond@noaa.gov>

Kyle,

We are processing a survey at PHB that has some depths that are shoaler than those tabulated in Morehead City Harbor Channel: Range B. Please see the attached document.

Has there been dredging in this channel more recently than 9/15/2010? If not, how would you like to proceed?

Pete

--

Peter Holmberg
Cartographic Team Lead
Pacific Hydrographic Branch
7600 Sand Point Way N.E.
Seattle, WA 98115
[206-526-6843](tel:206-526-6843)



Morehead City Harbor Range B Channel Shoaling.doc

560K

Kyle Ward <kyle.ward@noaa.gov>

Fri, Jan 6, 2012 at 7:39 AM

To: Peter Holmberg <peter.holmberg@noaa.gov>

Cc: David Zezula <david.j.zezula@noaa.gov>, Annemieke Raymond <annemieke.raymond@noaa.gov>

Pete,

The Army Corps did a Multibeam survey in October 2011 so we should not need to take any action. (Here is a link to the survey <http://www.saw.usace.army.mil/nav/mhc-bft.htm>) It looks like they found similar shoaling. I tried checking to see if the survey had been entered into DREG but my VPN is not working.

Regards,

Kyle

[Quoted text hidden]

--

Kyle R. Ward
NOAA Navigation Manager Southeast
2234 South Hobson Avenue
Charleston, SC 29405-1200
Office [843.740.1153](tel:843.740.1153)
Cell [301.651.4852](tel:301.651.4852)

nauticalcharts.noaa.gov



mih-b_2011-10-06_cs.pdf

Subject: Re: NC0902 Imagery

From: Mike Espey <Mike.Espey@noaa.gov>

Date: Tue, 20 Jul 2010 08:49:20 -0400

To: Robert Ramsey <Robert.Ramsey@noaa.gov>

CC: Chris Hare <Christopher.Hare@noaa.gov>, Jonathan Neuhaus <Jonathan.Neuhaus@noaa.gov>

Bob,
Glad to hear the images are helpful to your work! As for the image darkness, most GIS software used to render aerial or satellite imagery uses histograms and standard deviation stretches to render the images the way the software interprets is the optimal display. If the image covers a small or homogeneous area, the rendering could be unnaturally dark or light. But the good news is the display can be easily adjusted using standard settings. This is the case w/ArcGIS, and probably MapInfo as well. There is absolutely nothing we on this end can do to fix that for you. It is entirely a symptom of the functionality of the display.

Yes, they were all B/W (panchromatic) images.

And for even MORE good news. I included the vector shorelines on that CD that we compiled for NC0902. Though be aware that NC0902 was a CSCAP-type project, meaning the entire shoreline was not compiled, only isolated spots where the greatest changes/discrepancies with the chart were identified. Also be aware that we currently have a full photogrammetric project planned for the entire Core Sound area.

Let me know if you need anything else or have any more questions!
Mike

Robert Ramsey wrote:

Mike,

The data you sent on the CD is much tighter, <1m off on the calib pt.
Two off the images were rather dark, but I will fiddle around
to see if I can adjust; these are B/W not color, correct?

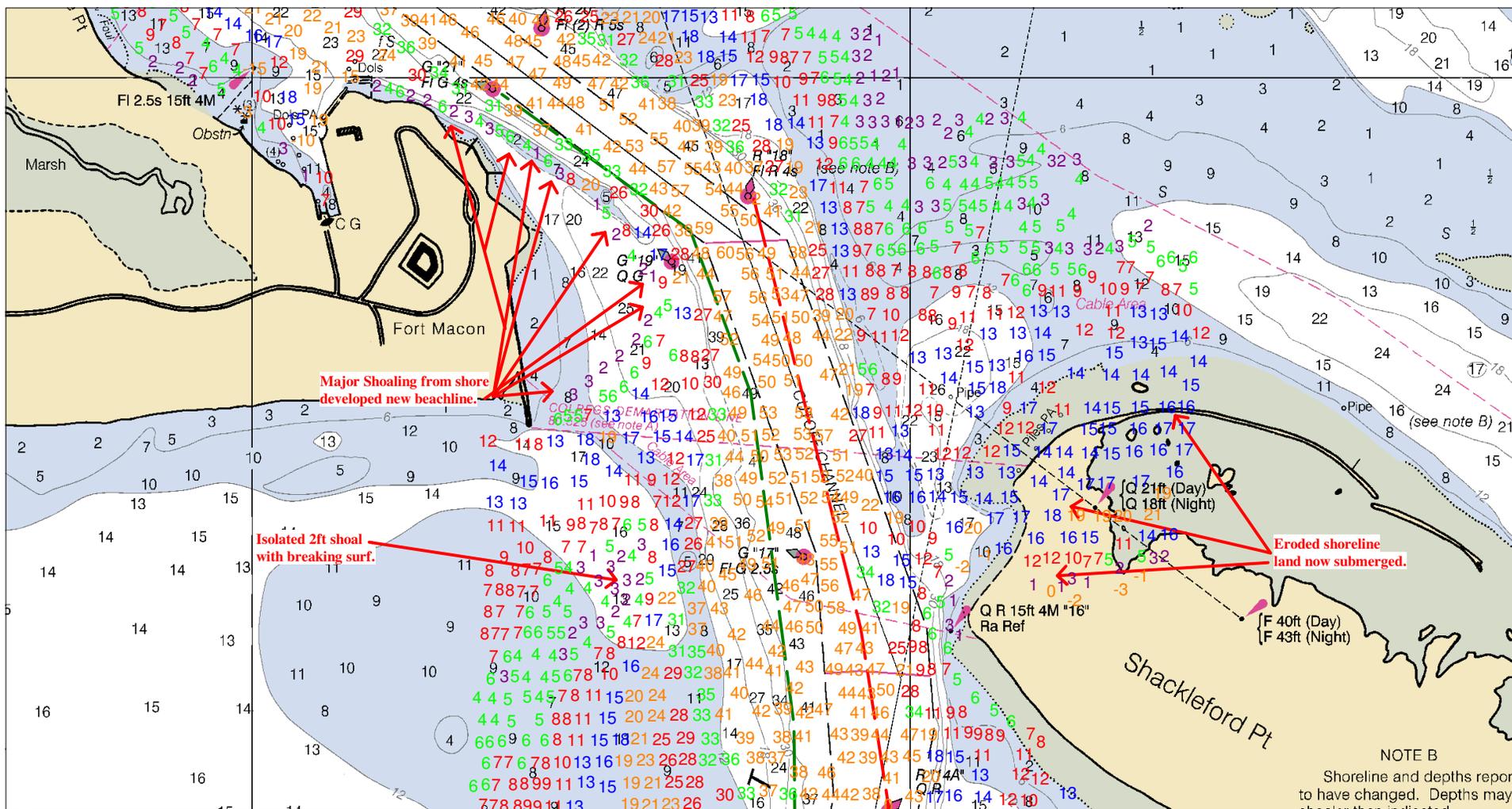
Last is , is this shoreline up for download of a shape file? just wanted
to check, because the current charts are pretty bad.

Thanks,

Bob

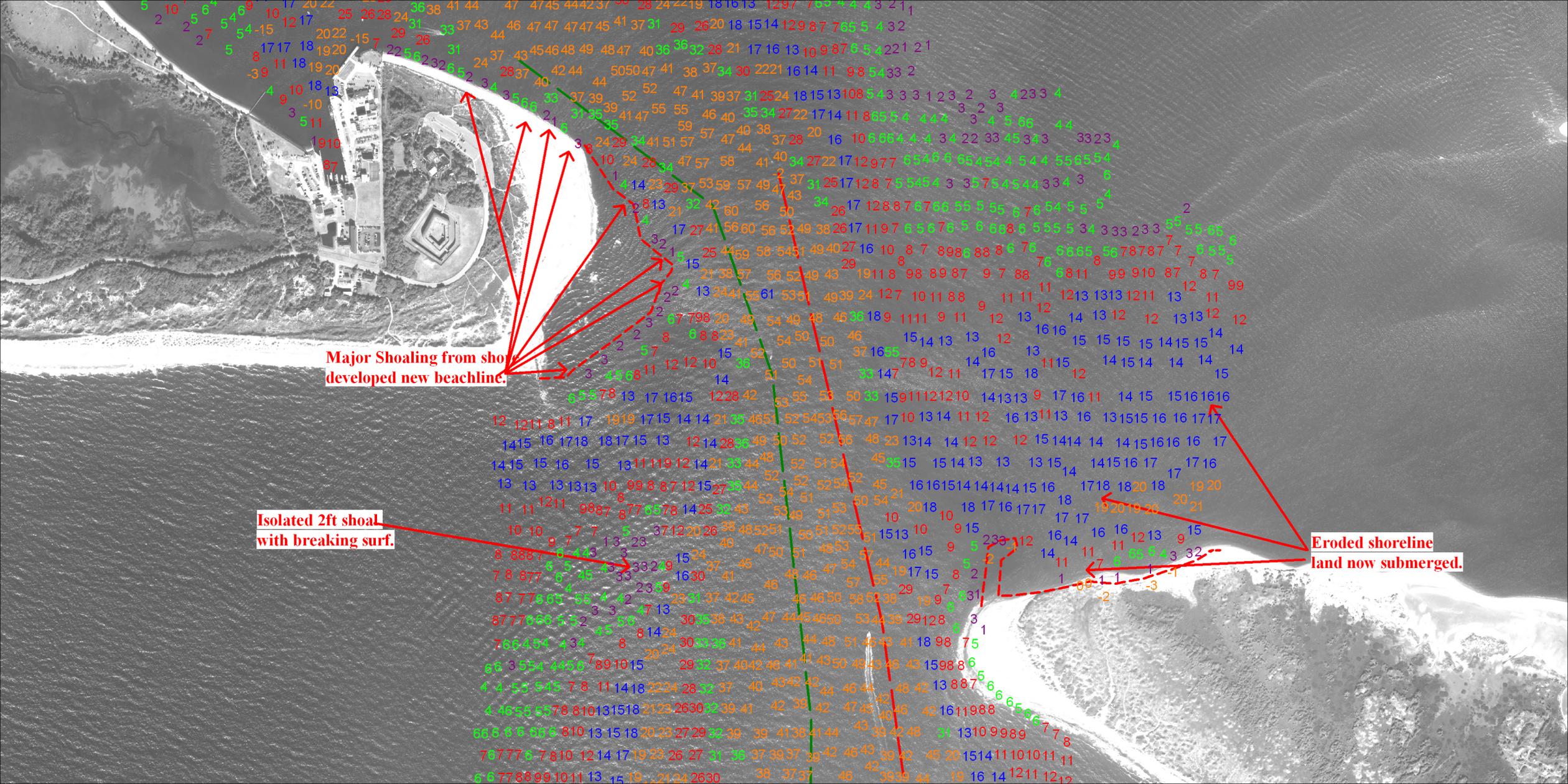
Mike Espey <mike.espey@noaa.gov>
Chief, Applications Branch
Remote Sensing Division
National Geodetic Survey

Chart Letter for H-12266, 2010 : Major shoreline changes of shoaling and errision, as well as offshore breaking surf bar development.



NOTE B
Shoreline and depths report to have changed. Depths may be shallower than indicated.

	NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SERVICE	This Chartlet has been corrected through Notice to Mariners 00 NOT FOR NAVIGATION
CHART LETTER FOR H-12266,2010 "SHOALING REPORT" CHART 11547 ED 37,08012007 // NTM 05292010 // MOREHEAD CITY HARBOR		SURVEYED BY: NOAA NRT-2 (N/CS53X2) R.W. RAMSEY JR LEAD HYDROGRAPHER DATE :07/07/2010 (DN:188) TO 09/15/2010 (DN:258)
HYDROGRAPHIC SURVEY: H-12266 PROJECT: S-F901-NRT2-10 FIELD SHEET NUMBER: B STATE: NORTH CAROLINA LOCALITY: MOREHEAD CITY, NC SUB-LOCALITY: MOREHEAD CITY TO BEAUFORT INLET	HORIZONTAL DATUM: NAD83 SOUNDING DATUM : MEAN LOWER SOUNDING UNITS: METERS SURVEY SCALE: 10,000 TIDE QUALITY: VERIFIED	CHARTLET VISIBLE AREA CENTER LATITUDE: 34/41/35.16 N CENTER LONGITUDE: 76/40/13.44 W PLOT SCALE: 1: 13819 1 in = 351 m
		SIGNED: DATE:



Major Shoaling from shore developed new beachline.

Isolated 2ft shoal with breaking surf.

Eroded shoreline land now submerged.



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

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE : September 29, 2010

HYDROGRAPHIC BRANCH: Atlantic
HYDROGRAPHIC PROJECT: S-F901-NRT2-2010
HYDROGRAPHIC SHEET: H12266

LOCALITY: Morehead City to Beaufort Inlet, Morehead City, NC
TIME PERIOD: July 7 - September 15, 2010

TIDE STATION USED: 865-6483 Beaufort, NC
Lat. 34° 43.2' N Long. 76° 40.2 W
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 0.991 meters

TIDE STATION USED: 865-8163 Wrightsville Beach, NC
Lat. 34° 12.8' N Long. 77° 47.2' W
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 1.207 meters

REMARKS: RECOMMENDED ZONING

Preliminary zoning is accepted as the final zoning for project S-F901-NRT2-2010, H12266 during the time period between July 7 and September 15, 2010.

Please use the zoning file "F901NRT22010CORP_Rev" submitted with the project instructions for S-F901-NRT2-2010. Zones SA79, BF2, BF2A, BF3, BF4, BF5, BF6, BF7, BF8, BF9, BF10, BF11, BF12 and BF13 are the applicable zones for H12266.

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).

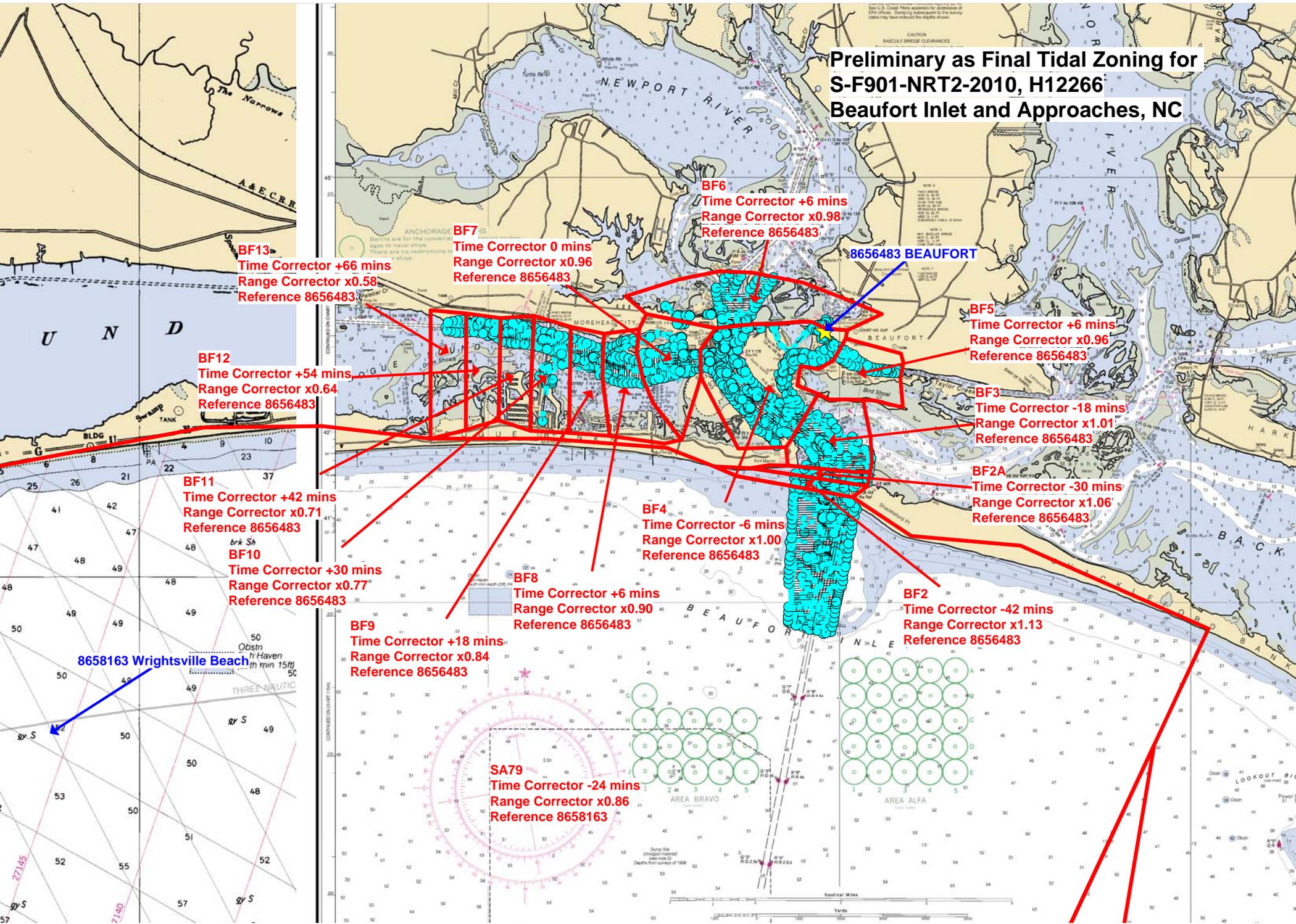
Peter J. Stone

Digitally signed by Peter J. Stone
DN: cn=Peter J. Stone, o=Oceanographic
Division, ou=NOAA/NOS/CO-OPS,
email=peter.stone@noaa.gov, c=US
Date: 2010.10.07 08:23:09 -04'00'

CHIEF, OCEANOGRAPHIC DIVISION



**Preliminary as Final Tidal Zoning for
S-F901-NRT2-2010, H12266
Beaufort Inlet and Approaches, NC**



PHB Compilation Log

General Survey Info

Survey Number	H12266	Field Unit	NRT2	State	North Carolina	UTM Zone	18N
Project Date	S-F901-NRT2-10	Project Name (Locality)	Morehead City				
Start Date	07/07/2010	Sublocality	Morehead City to Beaufort Inlet				
End Date	09/15/2010	Survey Scale	1:7,500	Compilation Scale	1:15,000		

Affected Raster Charts

Chart	KAPP	Scale	Edition	Date	NTM Date
11547	511	1:15,000	38	09/01/2011	10/29/2011
11545	509	1:40,000	64	09/01/2011	10/29/2011

Affected Electronic Charts

ENC	Scale
US5NC17M	1:15,000
US5NC18M	1:40,000

Spatial Reference

Horizontal Datum	WGS84
Coordinate System	LLDG
Sounding Datum	MLLW
Vertical Datum	MHW

Junction Surveys

Survey Number	Survey Date	Location Relative to Current Survey
N/A		(NE, SE, NNW, ect.)

Processing Info

HCell Compiler	Annie Raymond	QC Reviewer	Pete Holmberg	SAR Reviewer	Adam Argento
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Source Surfaces

Resolution	File Name
3m	H12266_VBES3mbase_Final_uncertainty

Supporting Documents

Name	Version
Specs and Deleverables	April 2010
HCell Specs	6.1

PHB Compilation Log

Software Used		
Software	Version, Hot Fix	Used For
CARIS HIPS	7.0 SP2 HF7	SAR Review. Inspection of Combined BASE Surfaces.
Pydro	11.10	SAR Review. Generation of Features Reports.
CARIS BASE Editor	3.2 SP1	Creation of soundings and bathy-derived features, meta area object, and Blue Notes; Survey evaluation and verification; Initial HCell assembly.
CARIS S-57 Composer	2.2 SP1 FH3	Final compilation of the HCell, correct geometry and build topology, apply final attributes, export the HCell, and QA.
CARIS GIS	4.4a	Setting the sounding rounding variable for conversion of the metric HCell to NOAA charting units with NOAA rounding. (For Fathoms and Feet chart units only.)
CARIS HOM	3.3 SP3 HF8	Perform conversion of the metric HCell to NOAA charting units with NOAA rounding. (For Fathom and Feet chart units only)
CARIS Plot Composer	5.1 SP1	Generate plots of CARIS Session files used for QC.
HydroService, dKart Inspector	5.1	Validation check of the base cell file.
Fugawi View ENC	1.0.0.3	Independent inspection of final HCells using COTS viewer.

Product Info

Deleverables	
Survey Scale HCell	H12266_SS.000
HCell Report for MCD	H12266_HR.pdf
Feature Listing	H12266_FL.txt
Descriptive Report	H12266_DR.pdf
Survey Outline	H12266_Outline.gml and .xsd
Chart Scale HCell	H12266_CS.000

Horizontal and Vertical Units	
<p>During creation of the HCell all soundings and features are maintained in metric units with as high precision as possible. Depth units for soundings measured with sonar maintain millimeter precision. Depths on rocks above MLLW and heights on islets above MHW are typically measured with range finder, so precision is less.</p>	
Depth Units (DUNI)	Feet
Positional Units (PUNI)	Feet
Height Units (HUNI)	Meters

PHB Compilation Log

Radius Setting

A survey-scale sounding (SOUNDG) feature object layer was built from the Combined Surface in CARIS BASE Editor. A shoal-biased selection was made at survey scale using a Radius Table file with values shown below.

Radius (mm)	Min. Depth (m)	Max Depth
2	-4.7	10
3	10	20
3.5	20	50
4	50	100

Contours

Depth contours at the intervals on the largest scale chart are included in the SS HCell for MCD raster charting division to use for guidance in creating chart contours. With the exception of the zero contours included in the *_CS file, contours have not been deconflicted against shoreline features, soundings and hydrography.

Charted Contours	Metric Equivalent	Metric NOAA Rounded	Charted NOAA Rounded
6	1.8288	2.0574	6.75
12	3.6576	3.8862	12.75
18	5.4864	5.715	18.75
30	9.144	9.3726	30.75
36	10.9728	11.2014	36.75

Add Contour

Remove Contour

Additional Info

Contact Information

Inquiries regarding this HCell content or construction should be directed to:

HCell Compiler

Annie Raymond

Phone Number

206-526-6849

Email

annemieke.raymond@noaa.gov

Compilation Comments

Contours created from a TIN surface made from single beam soundings in BASE editor.

APPROVAL SHEET
H12266

Initial Approvals:

The survey evaluation and verification has been conducted according to branch processing procedures and the HCell compiled per the latest OCS HCell Specifications.

The survey and associated records have been inspected with regard to survey coverage, delineation of the depth curves, development of critical depths, S-57 classification and attribution of soundings and features, cartographic characterization, and verification or disproof of charted data within the survey limits. The survey records and digital data comply with OCS requirements except where noted in the Descriptive Report and are adequate to supersede prior surveys and nautical charts in the common area.

I have reviewed the HCell, accompanying data, and reports. This survey and accompanying digital data meet or exceed OCS requirements and standards for products in support of nautical charting except where noted in the Descriptive Report.