H11762

NOAA FORM 76-35A

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

DESCRIPTIVE REPORT

Type of Survey **Hydrographic**

Registry No. **H11762**

LOCALITY

State **North Carolina**

General Locality **Wilmington**

Sub-locality **Southport to the Approach to Cape Fear River**

2007

CHIEF OF PARTY
David B. Elliott
Team Leader

LIBRARY & ARCHIVES

DATE

NOAA FORM 77-28U.S. DEPARTMENT OF COMMERCE (11-72)NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION	REGISTRY NUMBER:
HYDROGRAPHIC TITLE SHEET	**H11762**
INSTRUCTIONS: The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.	FIELD NUMBER: N/A

State/Territory: **North Carolina**

General Locality: **Wilmington**

Sub-Locality: **Southport to the Approach to Cape Fear River**

Scale: **1:10,000** Date of Survey: 25 Sep, 2007 to 11 Dec, 2007

Instructions Dated: 2**4 Sep, 2007** Project Number: **OPR-G309-NRT2-07**

Vessel: **NOAA Launch 1210**

Chief of Party: **David B. Elliott - Team Leader**

Surveyed by: **David Elliott, Robert Ramsey, & Aurel Piantanida (NRT2)**

Soundings by: **ODOM Echtotrac CV**

Graphic record scaled by: **DE, RR, AP**

Graphic record checked by: **DE, RR, AP**

Protracted by: **N/A** Autom ated Plot: **N/A**

Verification by: **Atlantic Hydrographic Branch**

Soundings in: **Meters** ***Feet*** **at MLLW**

Remarks:

1) All Times are UTC.

2) This is a basic Hydrographic Survey under the Navigable Area Concept.

3) Projection is UTM Zone 17.

Red, bold, italic comments were made during office processing.

TABLE OF CONTENTS

DESCRIPTIVE REPORT

to accompany

OPR-G309-NRT2-07

HYDROGRAPHIC SURVEY
H11762

Scale of Survey: 1:10,000
Year of Survey: 2007
Navigation Response Team 2 - Launch 1210
David B. Elliott- Team Leader

A. AREA SURVEYED

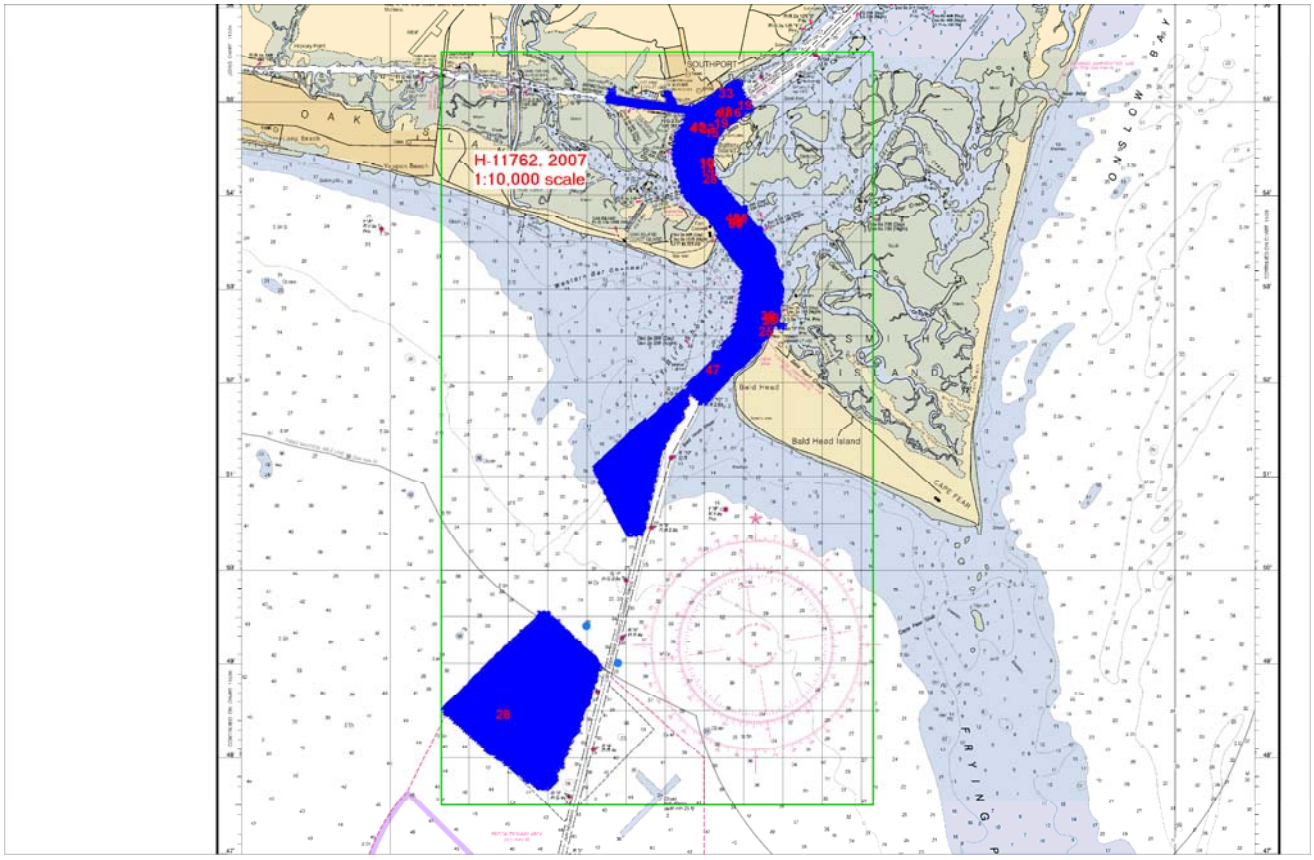
This hydrographic survey was conducted in accordance with ***Port Letter Instructions for project OPR-G309-NRT2-07, Wilmington, North Carolina. The instructions are dated Sept. 24, 2007.

The purpose of this project is to collect new hydrography in the vicinity of Southport to the Approach to the Cape Fear River. The Port of Wilmington is the leading port in the State. Bathymetry data is needed to be collected from requests obtained by the Regional Navigation Manager and Hydrographic Surveys Division. In addition results from the contemporary hydrography and investigations will also serve as a chart evaluation for NOS Electronic Nautical Charts (ENC). The Remote Sensing Division, from the National Geodetic Survey, has released a Chart Evaluation File of the area for Wilmington, NC. The hydrographic data from this project will help ensure navigational safety through updated critical nautical charts and provide new information for emergency response organizations to use in the event of a marine casualty or coastal storm. ***Chart Evaluation Files to satisfy ENC verification requirement (as listed in the Letter Instructions) were included in survey F00548.***

Survey Dates: Sept. 25, 2007 (DN: 268) to Dec. 11. 2007 (DN: 345) ***Concur***.

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

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



Total LNM of SB & SSS = 135.0, *Total Crosslines = 18.0, Bottom Samples = 4, Total Sq NM = 4.0

Ratio of crosslines to mainlines exceeds 8%, successfully meeting the requirement.

B. DATA ACQUISITION AND PROCESSING *See also Evaluation Report*

B.1. EQUIPMENT

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

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

An ODOM 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.

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

A Trimble DGPS Beacon Receiver was used as the primary navigation station on launch 1210.

A Trimble Pathfinder ProXRS was used for all ENC high accuracy positioning and establishment of calibration points.

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

B.2. QUALITY CONTROL

Following the Field Procedures Manual and the NOS Hydrographic Surveys Specifications and Deliverables Manual, June 14, 2006 has insured the integrity of the survey data for H11762.

Differential GPS (DGPS) was used for all hydrographic data acquired on this survey. DGPS performance checks were conducted in accordance with FPM 3.4.4 by comparing the DGPS position of the vessel to a high accuracy (1st order) calibration point weekly. ***Concur.***

Echo Sounder Control

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

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 100/500kHz.

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

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

When operating in shoaler waters (e.g. less than 30 meters deep), a short tow was required for the Klein system. When cable-out was approximately 4 meters or less, minor degradation of the side scan imagery resulted from the Odom EchoTrack CV2 echosounder. Traces were noted due to cross-talk between the two systems. ***Concur.***

Junctions

This survey junctions with surveys H10741-1997, 1:10,000 in the center, H09489 -1975, 1:10,000 to the north, H11411-2006, 1:20,000 to the southwest, & H11722- 2007, 1:20,000 to the southeast.
The present survey does not junction with survey H11722 (2007). The surveys are separated by the Cape Fear River Entrance Channel. Junctional surveys H10741 (1977) and H09489 (1975) were not available for comparison. Junction will have to be accomplished in MCD. See also the Evaluation Report section B2.c.

B.3. CORRECTIONS TO ECHO SOUNDING

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

The leadline log comparisons are in *Appendix V. ***Data appended to this report.***

There are no deviations to be discussed in this section. ***Concur.***

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. CTD casts are downloaded and processed in the Velociwin program supplied by the Hydrographic Systems and Technology Program (HSTP). Corrections were applied to the sounding plot using the Carris HIPS.

Field soundings are corrected by verified tides data from NOAA/CO-OPS. ***Concur. Approved tides and zoning were applied during field processing of this survey.***

The Real Time Actual 6 min Tides are downloaded from:
"http://co-ops.nos.noaa.gov/data_res.html", for all gauges required in the given projects defined by the ZDF file provided in the project letter, and instruction. Tide values are downloaded in blocks of data that covers the Times of Hydrography, and saved in a text file format. The MapInfo program is then used with the "HYDRO_MI" pre-Survey function, of "Create Cowlis", this function converts the text file into a Caris tide file (.tid). The final soundings have discrete zoning (smooth tides) applied with ZDF from NOAA/CO-OPS.

All elevations and soundings on survey H11762 are based on MLLW unless otherwise specified.

A Request for Approved Tides letter was sent to <smooth.tides@noaa.gov> on Jan. 10, 2008. This request also includes the CORP.tab, the STNP.tab and LABP.tab all found*(Appendix IV). Final tidal zoning approval e-mail was received on Jan 25, 2008. ***Data appended to this Report***.

At the time of this survey, NRT2 did not have an IMU, hence none of the data has been corrected for heave, pitch, and roll.

Horizontal Control

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

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

D. RESULTS AND RECOMMENDATIONS ***See also the Evaluation Report***

D.1. Chart Comparison

There were two charts used for comparison on this survey:

Chart Number	Edition	Edition Date	Scale
11536	18th	May, 2005	1:80,000
11537	37th	Dec, 2006	1:40,000

ENC Cell	Edition	Last Updated	Corresponding Chart
US4NC11M	5	Feb. 02, 2007	11536
US5NC12M	16	Jul. 27, 2007	11537

General Agreement with Charted soundings

The survey soundings have two to three feet discrepancies offshore. There are ten-foot discrepancies on the inshore portions of the survey. All charted soundings should be superseded by this survey.

Concur, with the exception of the southernmost Dump Site for dredged materials – 2006 multi-beam survey H11411, conducted by NOAA Ship THOMAS JEFFERSON, surveyed this area. The data from H11411 should not be superseded, as this multi-beam data was corrected for heave, pitch, and roll. These depths have been marked for retaining as charted.

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

1. The isolated six -foot shoal offshore at 33° 50' 41" N, 078° 01' 51" W, has diminished in size. ***Do not concur. There is no six-foot shoal charted in this area. There is a shoal charted there with a least depth of sixteen feet. It is recommended that the present survey data be used to update the chart in this area and that the charted data be superseded by the present survey.***

2. The two charted piles at 33° 52' 40.11" N, 078° 00' 07.95" W, and 33° 52' 42.45" N, 078° 00' 08.46" W, were identified with 200% side scan sonar lying flat on bottom. These features are insignificant and should be removed from the chart. ***Concur. Delete both piles and the Piles notation from the chart***

3. The twelve foot contour at 33° 53' 15.28" N, 078°00' 35.1" W, has encroached towards the east approximately 100 meters. There is now a nine foot sounding at 33° 53' 16.86" N, 078° 00' 32.50 W. ***Concur. This 9 ft sounding was submitted to MCD as a DtoN by AHB on 17APR2008 and is charted on the latest edition of NOS Chart 11537. It is recommended that the area be updated with present survey data and that the nine foot depth be retained as charted.***

4. The 11.5 foot- sounding report 1998 at 33° 55' 03.64" N, 078° 01' 26.79" W, is now eight to nine feet. ***Do not concur. The present survey depths in this area are 5 to 8 feet. It is recommended that representative present survey depths be charted in the area. It is further recommended that the 11 ½ ft 1998 notation and that the Shl 5 ft notation in 33° 55' 00.55" N, 078° 01'31.68" W be removed from the chart.***

5. The currently uncharted ferry terminal at 33° 55' 04.83" N, 078° 02' 11.04" W, shows a controlling depth of eight feet. This is the Bald Head Island passenger ferry terminal. NOAA Remote Sensing Division does depict this feature on new shoreline under review for MCD. ***Concur. It is recommended that the ferry terminal be charted as shown on the ENC.***

6. The eighteen- foot contour at 33° 54' 28.26" N, 078° 01' 03.21" W, has encroached to the southwest approximately 130 meters. ***Concur.***

7. **The private channel leading to Bald Head Island at 33° 52' 39.49" N, 078° 00' 06.57" W, has a controlling depth of eight foot.** ***Do not concur. The present survey depths in this area indicate a 7 foot controlling depth.***

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

Source: Tabulated depths from ACOE surveys to Jun 2007 ***See also the Evaluation Report Section D.1.1.***

Bald Head Shoal – Right outside quarter

1. The eighteen foot contour at 33° 52' 06.81" N,078° 00' 41.22" W, has encroached towards the west approximately 50 meters. There is now a ~~35~~***36*** foot sounding at 33° 52' 07.85" N, 078° 00' 42.79" W. The project depth for this channel leg is 44 foot. ***Concur. However, the listed controlling depth for the Right Outside Quarter of the Bald Head Shoal is 26.8 ft, not 44 ft.***

AWOIS Item Investigations

There were five AWOIS items within the confines ofH11762. Detailed information of these features can be found in the PSS and in *Appendix V. ***Data appended to this Report.***

AWOIS#	**Search**	**Recommendation**
14054 ***33°54'16.0"N, 78°00'59.0"W***	200% SSS	Exists, Retain as charted remove PA**
14055 ***33°54'40.8"N, 78°00'53.7"W***	200% SSS	Exists, Retain as charted **
14056 ***33°54'45.0"N, 78°00'49.7"W***	200% SSS	Exists, Retain as charted remove PD**
14057 ***33°54'51.0"N, 78°00'38.0"W***	200% SSS	Exists, Retain as charted remove PD**
14058 ***33°55'11.34"N, 78°00'56.66"W***	200% SSS	Insignificant contact, recommend * removal from chart.

***Concur with all Field Unit AWOIS recommendations.**
*** Do not concur with Field Unit AWOIS recommendations. See Evaluation Report Section D.1.1.***

The following is a list of charted features that were investigated on H11762 that contain the label PA, ED, PD or Rep that were not assigned as AWOIS:

1. The charted piles note with leader to wreck PA symbol at 33° 54' 11.34" N, 078° 00' 56.66" W , should be removed from the chart. ***Concur.***

Dangers to Navigation ***See also the Evaluation Report***

There were two DTONS within the confines of H11762. These features were sent in advance to MCD in a zip file via e-mail transmission on Jan. 7, 2008. Detailed information can be found in *Appendix I. ***Concur. An additional DtoN was submitted to MCD on 17APR2008. *Data appended to this Report.***

D. 2. ADDITIONAL RESULTS

Aids to Navigation and Other Detached Positions

Navigation Aids serve their intended purpose with the exception of:

Two lights at the entrance channel to Bald Head Island that are erroneously charted.
Fl Green # 1 PA, private at ~~32~~ 33° 52' 41.37"N, 078° 00' 07.09" W, Remove from chart.

Fl Red # 2 PA, private at ~~32~~ 33° 52' 34.35"N, 078° 00' 10.11" W, Remove from chart.

These private lights do exist and were positioned as part of the ATON reque st for F00548 with the Trimble DGPS Backpack for the Field Examination survey. These lights reside on the entrance jetties.

Charted positions should be superseded by new survey positions***on survey F00548***. ***Concur. Defer to MCD for final charting decision.***

Ferry Routes

There is one uncharted Ferry route within the confines of H11762. This route runs fromSouthport, NC to Bald Head Island, NC carrying passengers only. ***Concur.***

Submarine Cables and Pipelines

There are two submerged cables on H11762 and they ar e adequately charted. There are no pipelines within the confines of H11762. ***Concur.***

Bridges

There are no bridges within the confines of H11762. ***Concur.***

Bottom Samples

There were four bottom samples taken on the charted sedimentary descriptions on H11762. Extensive sampling was not taken due to the lack of charted characteristics throughout the body of the river. All of these samples compared to the charted descriptions and no changes are recommended. The Bottom Sample log is in ***Appendix V. ***Concur. Apply these characteristics to the chart***

****Data appended to this report.***

E. APPROVAL SHEET

OPR-G309-NRT2-07

Wilmington, NC

Survey Registry No. H11762

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

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

Submitted by: David B. Elliott

David B. Elliott - Team Leader
Navigation Response Team 2

APPENDIX I

DANGERS TO NAVIGATION REPORT

4.1) 19 foot dangerous obstruction

DANGER TO NAVIGATION

Survey Summary

Survey Position: 33° 54' 57.6" N, 078° 00' 29.1" W

Least Depth: 5.75 m (= 18.88 ft = 3.147 fm = 3 fm 0.88 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2007-303.13:21:33.713 (10/30/2007)

Survey Line: h11762 / nrt2_1210_sb / 2007-303 / 030_1320

Profile/Beam: 472/1

Charts Affected: 11534_1, 11534_2, 11537_1, 11536_1, 11520_1, 11009_1

Remarks:

Subm Obstrn located with hard signiture.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11762/nrt2_1210_sb/2007-303/030_1320	472/1	0.00	000.0	Primary
h11762/nrt2_1210_klein3000hf_200sss/2007-289/sss071016163800	0002	4.28	062.2	Secondary
h11762/nrt2_1210_klein3000hf_100sss/2007-289/sss071016160200	0004	6.93	153.8	Secondary

Hydrographer Recommendations

Chart subm obstr LD=19ft @ mllw.

Cartographically-Rounded Depth (Affected Charts):

19ft (11534_1, 11534_2, 11537_1, 11536_1)

3fm (11520_1, 11009_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: CATOBS - 1:snag / stump

INFORM - Concur with field unit -chart subm obstr.

OBJNAM - 19 foot dangerous obstruction

QUASOU - 1:depth known

SORDAT - 20071211

SORIND - US,US,nsurf,H11762

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

VALSOU - 5.755 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

Concur. Chart a 19 foot dangerous obstruction in Latitude 33°54'57.565", Longitude 078°00'29.064"

Feature Images

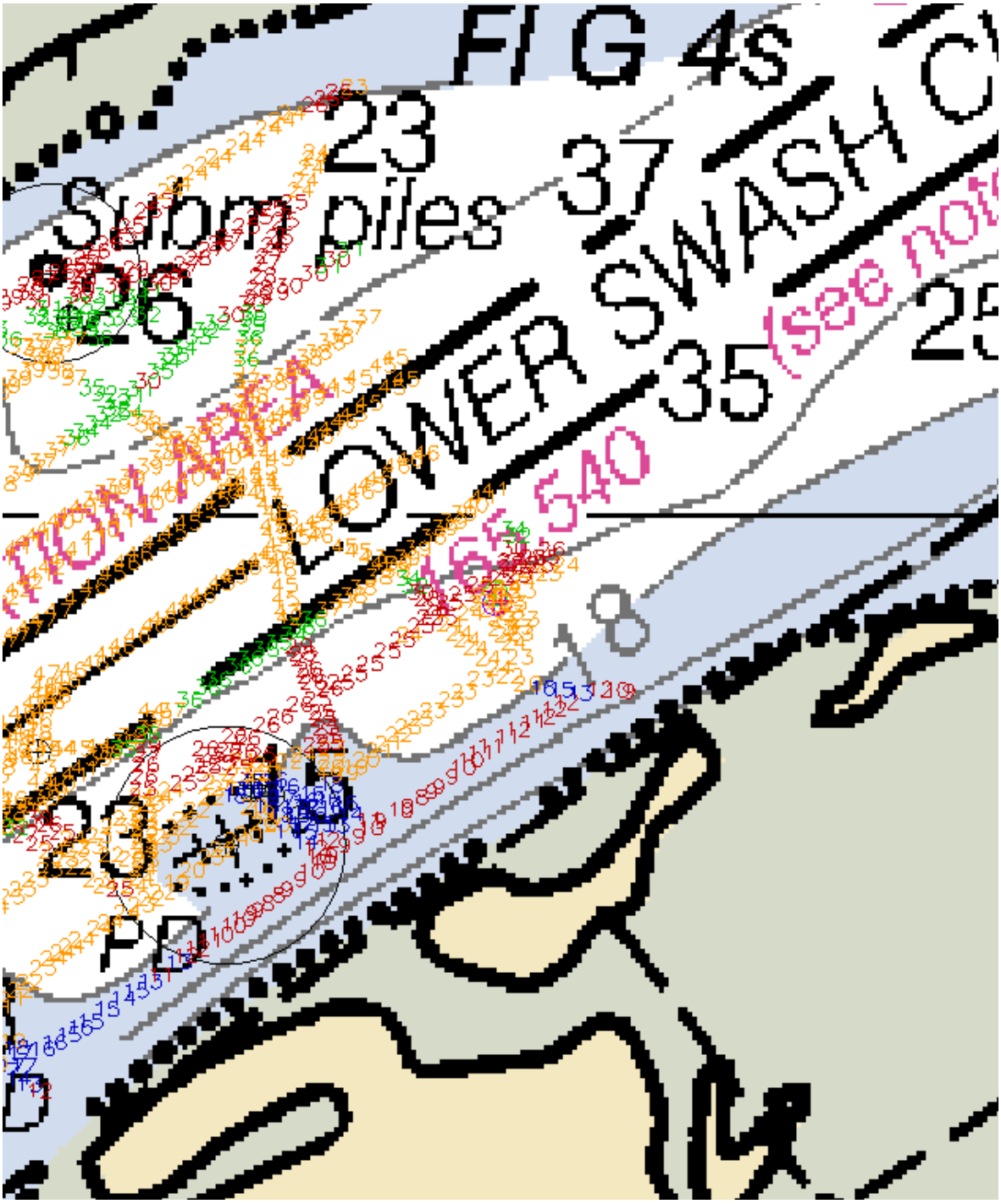


Figure 4.1.1

[Image file h:/compilation/h11762_g309-nrt2/h11762/caris/hdcs_data/h11762/h11762/nrt2_1210_klein3000hf_200sss/2007-289/sss07101616380 does not exist.]

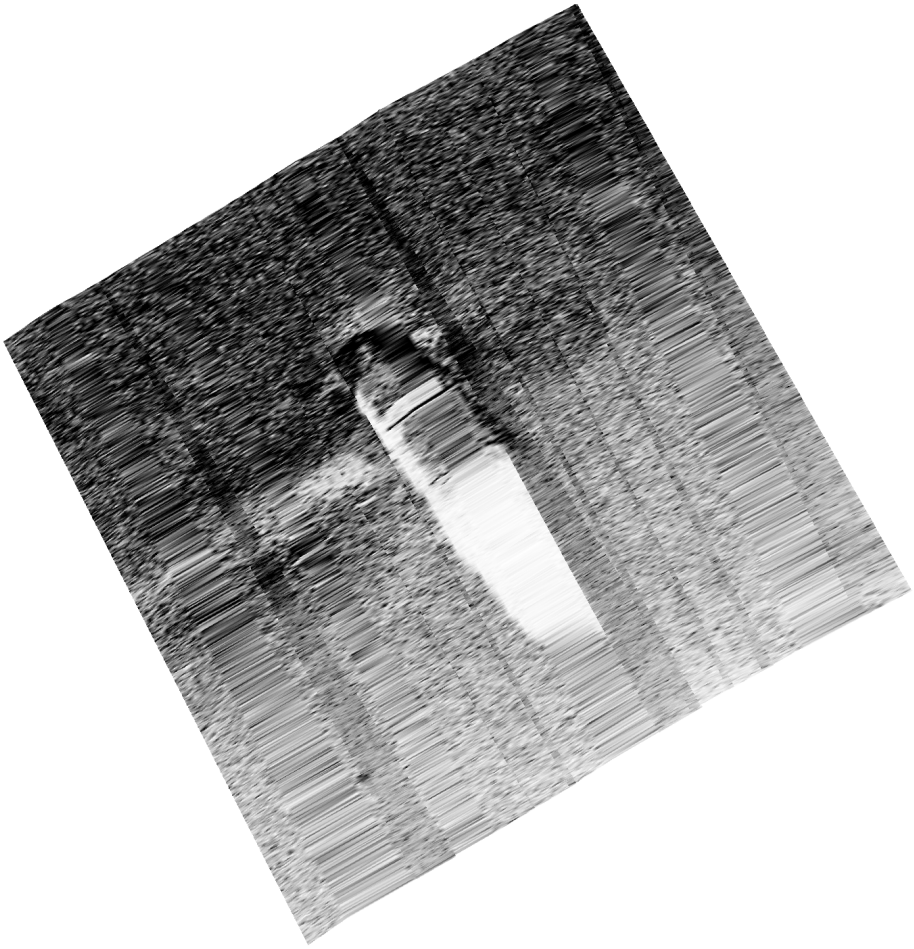


Figure 4.1.2

4.2) 22 foot dangerous obstruction

DANGER TO NAVIGATION

Survey Summary

Survey Position: 33° 54' 42.1" N, 078° 00' 57.8" W

Least Depth: 6.64 m (= 21.78 ft = 3.631 fm = 3 fm 3.78 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2007-303.13:54:46.140 (10/30/2007)

Survey Line: h11762 / nrt2_1210_sb / 2007-303 / 036_1354

Profile/Beam: 430/1

Charts Affected: 11534_1, 11534_2, 11537_1, 11536_1, 11520_1, 11009_1

Remarks:

Subm Obstrn located with hard signiture.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11762/nrt2_1210_sb/2007-303/036_1354	430/1	0.00	000.0	Primary
h11762/nrt2_1210_klein3000hf_100sss/2007-289/sss071016161400	0008	3.32	349.2	Secondary
h11762/nrt2_1210_klein3000hf_200sss/2007-289/sss071016163800	0005	5.30	059.3	Secondary

Hydrographer Recommendations

Chart subm obstr.

Cartographically-Rounded Depth (Affected Charts):

22ft (11534_1, 11534_2, 11537_1, 11536_1)

3 ½fm (11520_1, 11009_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: CATOBS - 1:snag / stump

INFORM - Concur with field unit - chart subm obstr.

OBJNAM - 22 foot dangerous obstruction

QUASOU - 1:depth known

SORDAT - 20071211

SORIND - US,US,nsurf,H11762

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

VALSOU - 6.640 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

Concur. Chart a 22 foot dangerous obstruction in Latitude 33°54'42.147", Longitude 078°00'57.786"

Feature Images

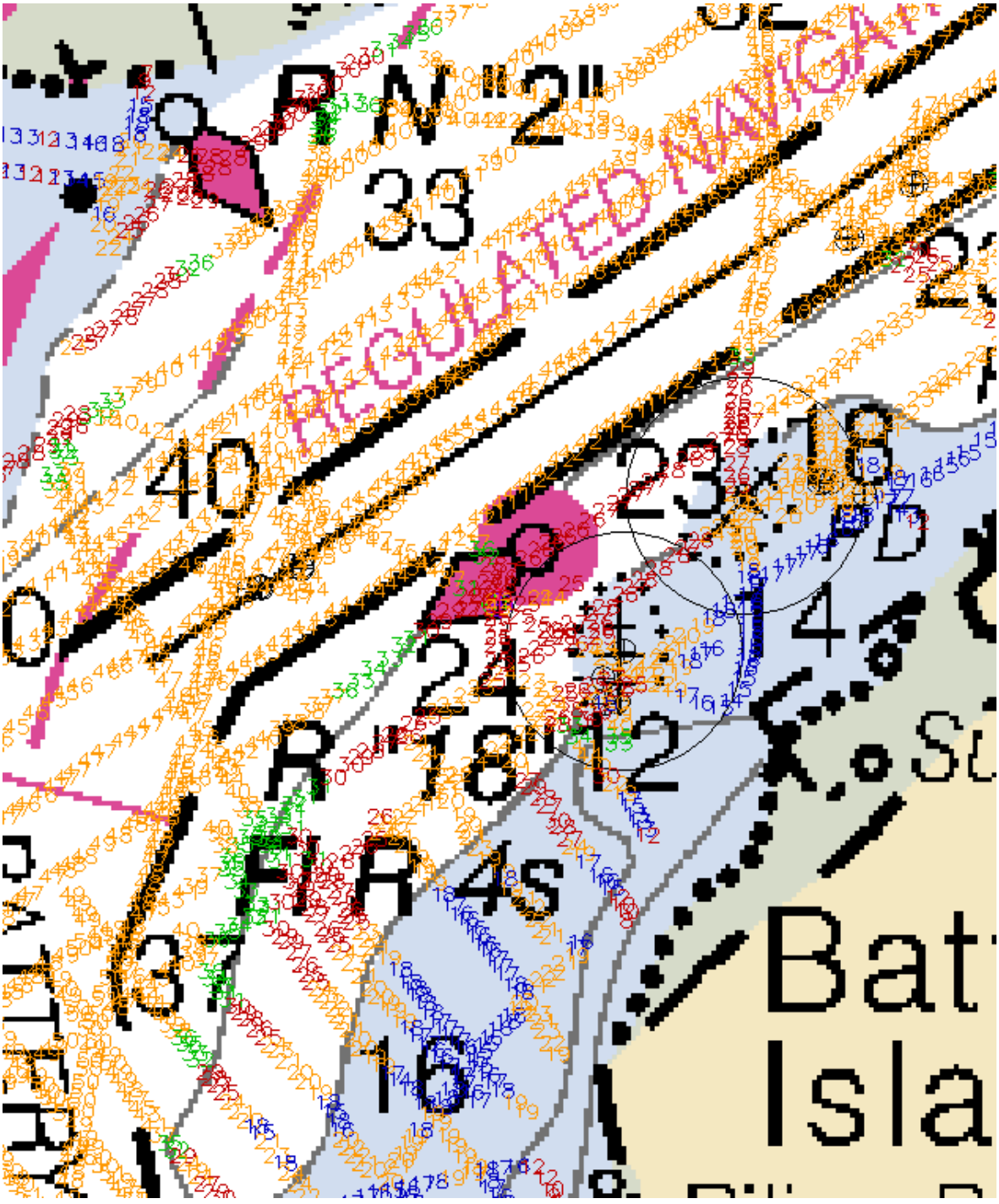


Figure 4.2.1

[Image file h:/compilation/h11762_g309-nrt2/h11762/caris/hdcs_data/h11762/h11762/nrt2_1210_klein3000hf_200sss/2007-289/sss07101616380 does not exist.]

Figure 4.2.2

4.3) 9 foot shoal depth

DANGER TO NAVIGATION

Survey Summary

Survey Position: 33° 53' 16.9" N, 078° 00' 32.5" W

Least Depth: 2.94 m (= 9.66 ft = 1.609 fm = 1 fm 3.66 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2007-298.16:20:47.406 (10/25/2007)

Survey Line: h11762 / nrt2_1210_sb / 2007-298 / 015_1619

Profile/Beam: 1353/1

Charts Affected: 11534_1, 11534_2, 11537_1, 11536_1, 11520_1, 11009_1

Remarks:

AHB Note: 9 ft sounding located at the survey position 33°53'16.867" , -078°00'32.503". Depth value has been verified and considered valid. Shoal depth represents least depth of a benthic rise. Survey depth lies between the 18 and 30 ft contours. Least depth considered significant for this depth area.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11762/nrt2_1210_sb/2007-298/015_1619	1353/1	0.00	000.0	Primary

Hydrographer Recommendations

AHB recommendation: Submit as DtoN, chart 9 ft sounding.

Cartographically-Rounded Depth (Affected Charts):

9ft (11534_1, 11534_2, 11537_1, 11536_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

INFORM - Sounding encroachment, Concur.

OBJNAM - 9 foot shoal depth

QUASOU - 1:depth known

SORDAT - 20071211

SORIND - US,US,nsurf,H11762

TECSOU - 1:found by echo-sounder

VERDAT - 12:Mean lower low water

Office Notes

Concur. Chart 9 foot shoal depth in Latitude 33°53'16.867", Longitude 078°00'32.503"

Feature Images

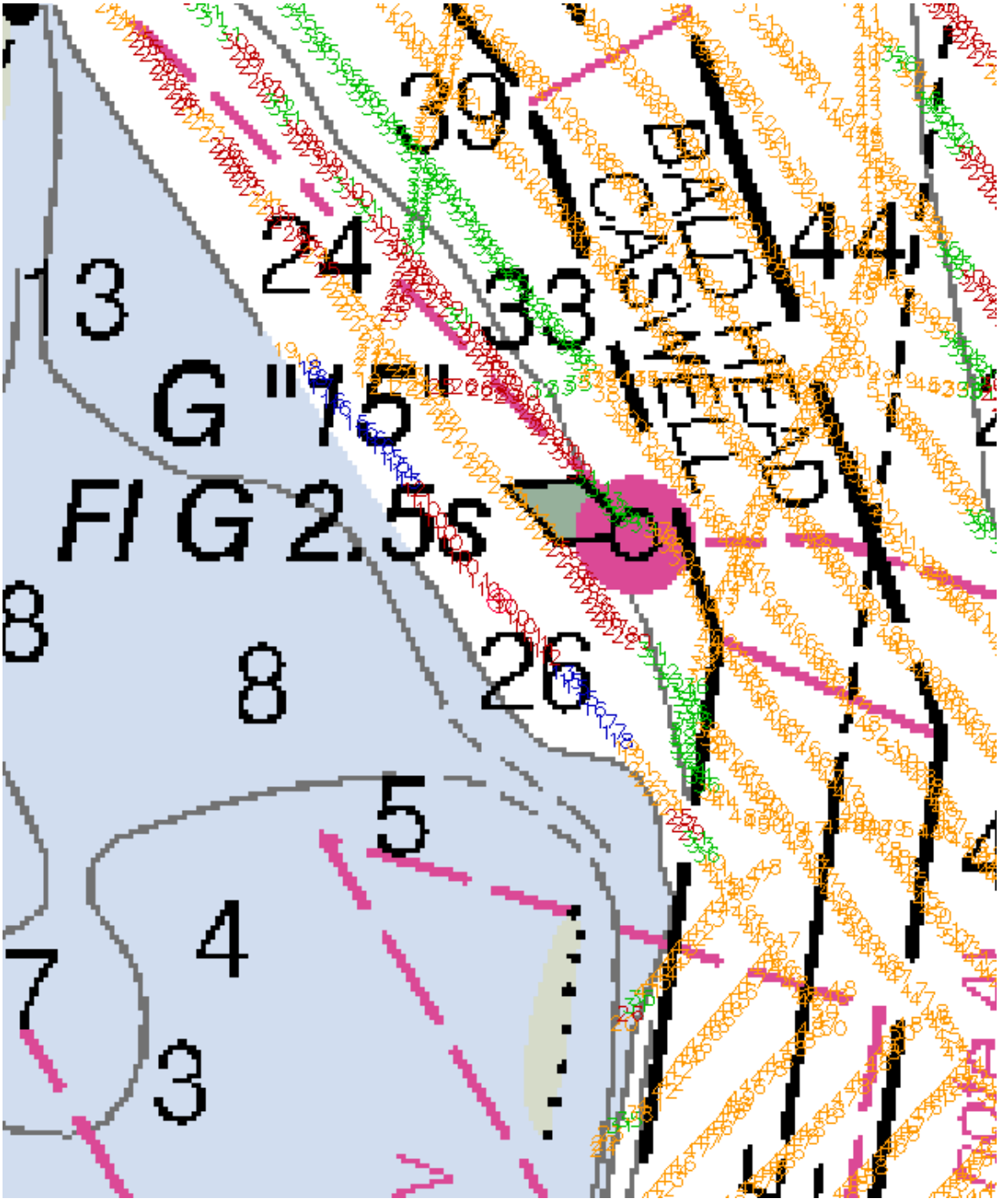


Figure 4.3.1

APPENDIX II
SURVEY FEATURES REPORT

H-11762 DR Report

Registry Number: H11762

State: North Carolina

Locality: Wilmington

Sub-locality: Southport to the Approach to Cape Fear River

Project Number: OPR-G309-NRT2-07

Survey Dates: 10/18/2007 - 10/13/2008

This report was generated by PYDRO 7.3.0{r2239} after final review of data sets obtained during this survey.

Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
11537	37th	12/01/2006	1:40,000 (11537_1)	USCG LNM: 09/09/2008 (09/16/2008) NGA NTM: 06/21/1997 (09/20/2008)
11534	34th	08/01/2006	1:40,000 (11534_2) 1:40,000 (11534_1)	[L]NTM: ?
11536	18th	05/01/2005	1:80,000 (11536_1)	[L]NTM: ?
11520	42nd	09/01/2005	1:432,720 (11520_1)	[L]NTM: ?
11009	37th	07/01/2004	1:1,200,000 (11009_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	Delete Dolphin	GP	[None]	33° 53' 48.2" N	078° 00' 59.8" W	---
1.2	Delete Dolphin	GP	[None]	33° 53' 48.9" N	078° 01' 01.0" W	---
1.3	Delete Dolphin	GP	[None]	33° 53' 47.0" N	078° 00' 57.9" W	---
1.4	Revise pier	SSS	[None]	33° 53' 47.5" N	078° 00' 58.2" W	---
2.1	Pile	SSS	[None]	33° 55' 03.4" N	078° 02' 10.9" W	---
2.2	Pile	SSS	[None]	33° 55' 03.4" N	078° 02' 11.7" W	---
2.3	Pile	SSS	[None]	33° 55' 03.0" N	078° 02' 10.9" W	---
3.1	Awois#14058	Shoal	10.05 m	33° 55' 05.2" N	078° 00' 43.1" W	14058
3.2	Awois#14054	Wreck	4.39 m	33° 54' 15.8" N	078° 00' 57.8" W	14054
3.3	Awois#14055	Wreck	4.73 m	33° 54' 39.4" N	078° 00' 54.3" W	14055

3.4	Awois#14056	Wreck	6.00 m	33° 54' 45.4" N	078° 00' 47.2" W	14056
3.5	Awois#14057	Wreck	5.04 m	33° 54' 52.5" N	078° 00' 37.2" W	14057
4.1	19 foot dangerous obstruction	Obstruction	5.75 m	33° 54' 57.6" N	078° 00' 29.1" W	---
4.2	22 foot dangerous obstruction	Obstruction	6.64 m	33° 54' 42.1" N	078° 00' 57.8" W	---
4.3	9 foot shoal depth	Shoal	2.94 m	33° 53' 16.9" N	078° 00' 32.5" W	---

1 - Charted Features

1.1) Delete Dolphin

Survey Summary

Survey Position: 33° 53' 48.2" N, 078° 00' 59.8" W

Least Depth: [None]

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2008-284.09:34:22 (10/10/2008)

GP Dataset: ChartGPs - Digitized

GP No.: 1

Charts Affected: 11534_1, 11534_2, 11537_1, 11536_1, 11520_1, 11009_1

Remarks:

[None]

Feature Correlation

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

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Attributes: INFORM - Dolphin is not visible in 100% SSS. Recommend removal from chart.

Office Notes

Dolphin does not exist. Delete it from the chart.

1.2) Delete Dolphin

Survey Summary

Survey Position: 33° 53' 48.9" N, 078° 01' 01.0" W

Least Depth: [None]

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2008-284.09:34:38 (10/10/2008)

GP Dataset: ChartGPs - Digitized

GP No.: 2

Charts Affected: 11534_1, 11534_2, 11537_1, 11536_1, 11520_1, 11009_1

Remarks:

[None]

Feature Correlation

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

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Attributes: INFORM - Dolphin is not visible in 100% SSS. Recommend removal from chart

Office Notes

Dolphin does not exist. Delete it from the chart.

1.3) Delete Dolphin

Survey Summary

Survey Position: 33° 53' 47.0" N, 078° 00' 57.9" W

Least Depth: [None]

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2008-284.09:34:41 (10/10/2008)

GP Dataset: ChartGPs - Digitized

GP No.: 3

Charts Affected: 11534_1, 11534_2, 11537_1, 11536_1, 11520_1, 11009_1

Remarks:

[None]

Feature Correlation

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

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Attributes: INFORM - Dolphin is not visible in 100% SSS. Recommend removal from chart.

Office Notes

Dolphin does not exist. Delete it from the chart.

1.4) Revise pier

Survey Summary

Survey Position: 33° 53' 47.5" N, 078° 00' 58.2" W

Least Depth: [None]

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2008-284.01:43:16 (10/10/2008)

Survey Line: h11762 / nrt2_1210_klein3000hf_100sss / 2007-298 / sss071025165400

Contact/Point: 0005/1

Charts Affected: 11534_1, 11534_2, 11537_1, 11536_1, 11520_1, 11009_1

Remarks:

Pier

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11762/nrt2_1210_klein3000hf_100sss/2007-298/sss071025165400	0005	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Attributes: INFORM - Recommend revise end of pier.

Office Notes

Revise length of pier. It is shorter than charted.

2 - New Features

2.1) Pile

Survey Summary

Survey Position: 33° 55' 03.4" N, 078° 02' 10.9" W

Least Depth: [None]

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2008-287.04:39:18 (10/13/2008)

Survey Line: h11762 / nrt2_1210_klein3000hf_100sss / 2007-303 / sss071030151000

Contact/Point: 0002/1

Charts Affected: 11534_2, 11537_1, 11536_1, 11520_1, 11009_1

Remarks:

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11762/nrt2_1210_klein3000hf_100sss/2007-303/sss071030151000	0002	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Pile (PILPNT)

Attributes: INFORM - Chart pile on ENC. Do not chart on Raster due to scale.

OBJNAM - Pile

SORDAT - 20071211

SORIND - US,US,nsurf,H11762

Office Notes

Due to scale of NOS chart 11537, do not chart. Chart Pile at surveyed location on ENC.

2.2) Pile

Survey Summary

Survey Position: 33° 55' 03.4" N, 078° 02' 11.7" W

Least Depth: [None]

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2008-287.04:39:37 (10/13/2008)

Survey Line: h11762 / nrt2_1210_klein3000hf_100sss / 2007-303 / sss071030151000

Contact/Point: 0003/1

Charts Affected: 11534_2, 11537_1, 11536_1, 11520_1, 11009_1

Remarks:

Pile

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11762/nrt2_1210_klein3000hf_100sss/2007-303/sss071030151000	0003	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Pile (PILPNT)

Attributes: INFORM - Chart Pile on ENC. Do not chart pile on raster due to scale.

OBJNAM - Pile

SORDAT - 20071211

SORIND - US,US,nsurf,H11762

Office Notes

Pile found. Due to chart scale, do not chart on NOS chart 11537. Chart on ENC US5NC12M.

2.3) Pile

Survey Summary

Survey Position: 33° 55' 03.0" N, 078° 02' 10.9" W

Least Depth: [None]

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2008-287.04:38:54 (10/13/2008)

Survey Line: h11762 / nrt2_1210_klein3000hf_100sss / 2007-303 / sss071030151000

Contact/Point: 0001/1

Charts Affected: 11534_2, 11537_1, 11536_1, 11520_1, 11009_1

Remarks:

Pile

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11762/nrt2_1210_klein3000hf_100sss/2007-303/sss071030151000	0001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Pile (PILPNT)

Attributes: INFORM - Chart Pile at surveyed location.

OBJNAM - Pile

SORDAT - 20071211

SORIND - US,US,nsurf,H11762

Office Notes

Delete charted Pile and PA notation. Chart Pile at surveyed location on chart and ENC. Revise note to Piles.

3 - AWOIS Features

3.1) Awois#14058

Primary Feature for AWOIS Item #14058

Search Position: 33° 55' 06.4" N, 078° 00' 43.8" W

Historical Depth: [None]

Search Radius: 75

Search Technique: S2, ES, DI

Technique Notes: [None]

History Notes:

****UNKNOWN SOURCE-- A VISIBLE PILES SYMBOL WAS CHARTED AT 33°54'05.82" - 078°0044.80" NAD 27, BEFORE 1969. ■ L-2228/75-- USPS; REVISED TO SUBMERGED PILES AT ABOVE CHARTED LOCATION. (ENTERED CEH 2/2007)■■OPR-G309-NRT2-07 // H-11762, 2007: 200% sss search was conducted in the search area. One small, insignificant obtrn, within the search radius was located. This feature held deeper depths than those charted, and is deemed unworth of charting.■■Recommend Removal. RWR

Survey Summary

Survey Position: 33° 55' 05.2" N, 078° 00' 43.1" W

Least Depth: 10.05 m (= 32.96 ft = 5.493 fm = 5 fm 2.96 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2007-303.13:06:32.077 (10/30/2007)

Survey Line: h11762 / nrt2_1210_sb / 2007-303 / 022_1306

Profile/Beam: 363/1

Charts Affected: 11534_1, 11534_2, 11537_1, 11536_1, 11520_1, 11009_1

Remarks:

Insignificant obstrn within the search radius for Awois 14058, Not deemed woth charting.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11762/nrt2_1210_sb/2007-303/022_1306	363/1	0.00	000.0	Primary
h11762/nrt2_1210_klein3000hf_100sss/2007-289/sss071016152700	0001	1.91	069.3	Secondary
AWOIS	AWOIS # 14058	40.79	155.8	Secondary

Hydrographer Recommendations

Recommend removal of charted Subm Piles associated with Awois # 14058.

Cartographically-Rounded Depth (Affected Charts):

33ft (11534_1, 11534_2, 11537_1, 11536_1)

5 ½fm (11520_1, 11009_1)

S-57 Data

Geo object 1: Sounding (SOUNDG)

Office Notes

Concur. Feature exists in SSS with a 2 ft shadow - insignificant for charting. Recommend removal of charted subm pile.

Feature Images

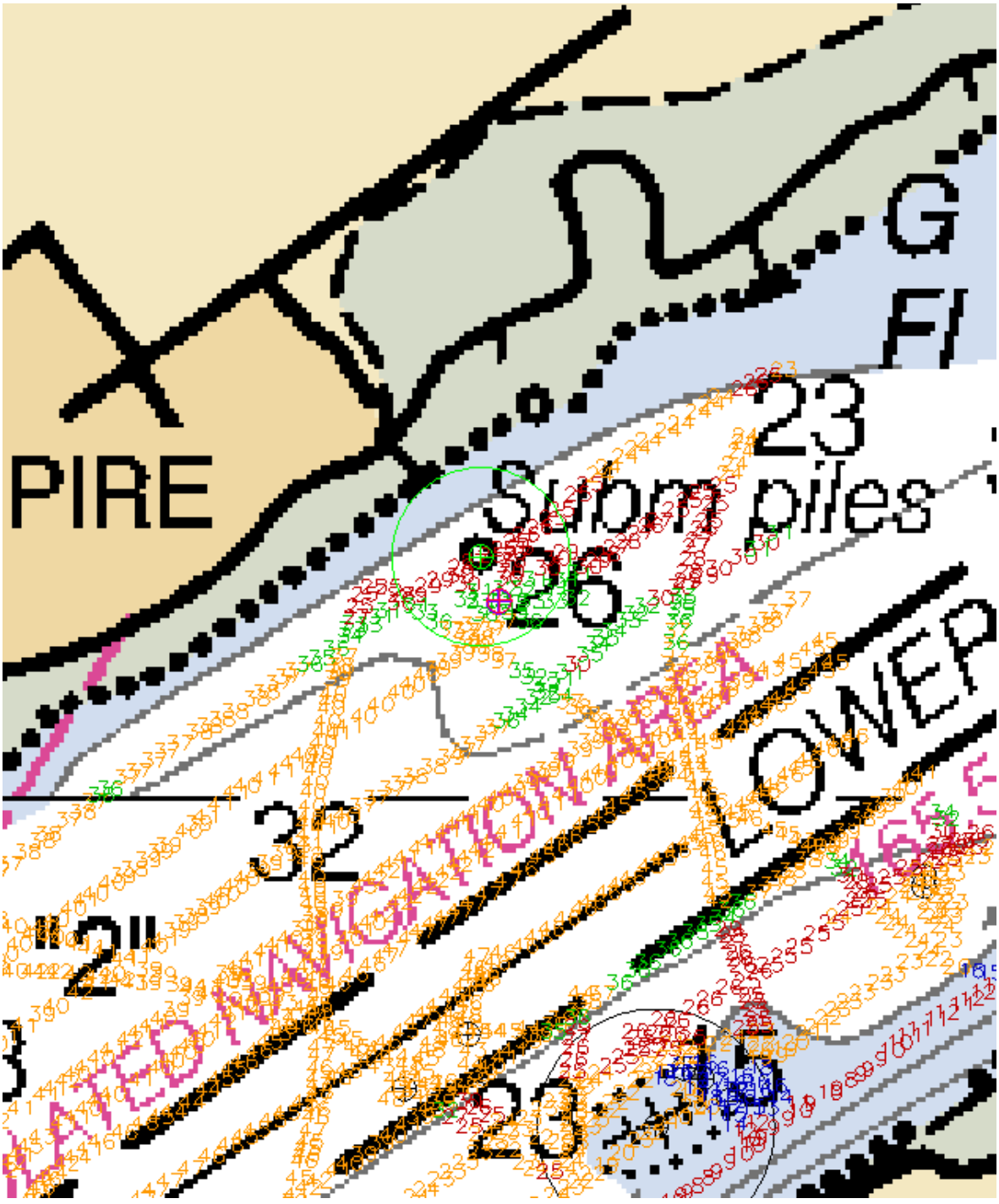


Figure 3.1.1

[Image file h:/compilation/h11762_g309-nrt2/h11762/caris/hdcs_data/h11762/awois 14058 sss.png does not exist.]

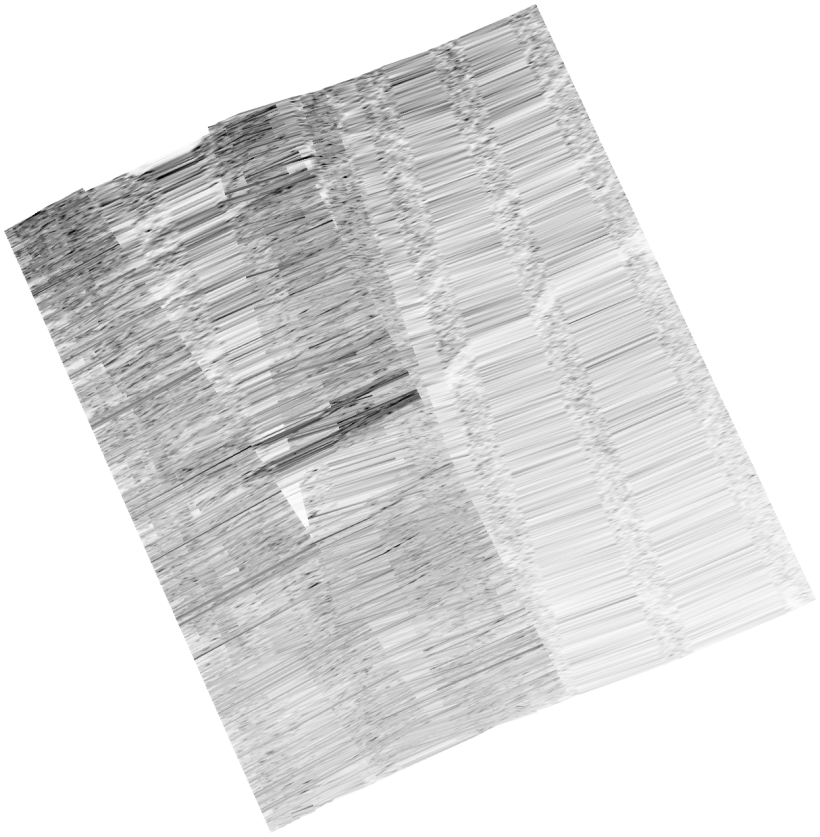


Figure 3.1.2

3.2) Awois#14054

Primary Feature for AWOIS Item #14054

Search Position: 33° 54' 16.0" N, 078° 00' 59.0" W

Historical Depth: [None]

Search Radius: 150

Search Technique: S2, ES, SD, DI

Technique Notes: [None]

History Notes:

****UNKNOWN SOURCE-- A SUBMERGED DANGEROUS WRECK WAS CHARTED AT 33°54'44.99" - 078°00'49.74" AND LABELED: PD, BEFORE 1969. (ENTERED CEH 9/2007)■■OPR-G309-NRT2-2007 , H11762, 2007: 200% sss verified the existance of this wreck.■■Recommend Retain as charted, Remove PD. RWR

Survey Summary

Survey Position: 33° 54' 15.8" N, 078° 00' 57.8" W

Least Depth: 4.39 m (= 14.39 ft = 2.398 fm = 2 fm 2.39 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2007-291.17:38:53.908 (10/18/2007)

Survey Line: h11762 / nrt2_1210_sb / 2007-291 / 016_1738

Profile/Beam: 461/1

Charts Affected: 11534_1, 11534_2, 11537_1, 11536_1, 11520_1, 11009_1

Remarks:

200% sss ops located Dangerous Subm Wrk as charted. Historical WRK identified by: Richard Lawrence, Underwater Archaeologist Department of Cultural Resources Office of State Archaeology Division of Archives and History P.O. Box 58 Kure Beach, NC 28449 (p) 910-458-9042 (f) 910-458-9043

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11762/nrt2_1210_sb/2007-291/016_1738	461/1	0.00	000.0	Primary
h11762/nrt2_1210_klein3000hf_200sss/2007-291/sss071018170700	0001	10.46	116.8	Secondary
h11762/nrt2_1210_klein3000hf_100sss/2007-291/sss071018163900	0003	12.17	081.5	Secondary
h11762/nrt2_1210_klein3000hf_100sss/2007-291/sss071018163900	0002	18.59	271.4	Secondary
AWOIS	AWOIS # 14054	32.76	102.6	Secondary

Hydrographer Recommendations

Retain as Charted with adjustment of position and removal of PA.

Cartographically-Rounded Depth (Affected Charts):

14ft (11534_1, 11534_2, 11537_1, 11536_1)

2 ¼fm (11520_1, 11009_1)

S-57 Data

Geo object 1: Wreck (WRECKS)

Attributes:

CATWRK - 2:dangerous wreck

CONVIS - 2:not visual conspicuous

INFORM - It is recommended that the dangerous sunken wreck symbol and PA notation be deleted and that a 14 foot dangerous sunken wreck be charted in 33/54/15.77N, 78/00/57.75W.

OBJNAM - AWOIS 14054 - 14 foot dangerous sunken wreck

QUASOU - 6:least depth known

SORDAT - 20071211

SORIND - US,US,nsurf,H11762

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

VALSOU - 4.386 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

Do not concur. AWOIS Item 14054 is a dangerous sunken wreck PA symbol and notation charted in 33/54/16.0N, 78/00/59.0W. It is recommended that the dangerous sunken wreck symbol and PA notation be deleted and that a 14 foot dangerous sunken wreck be charted in 33/54/15.77N, 78/00/57.75W.

Feature Images

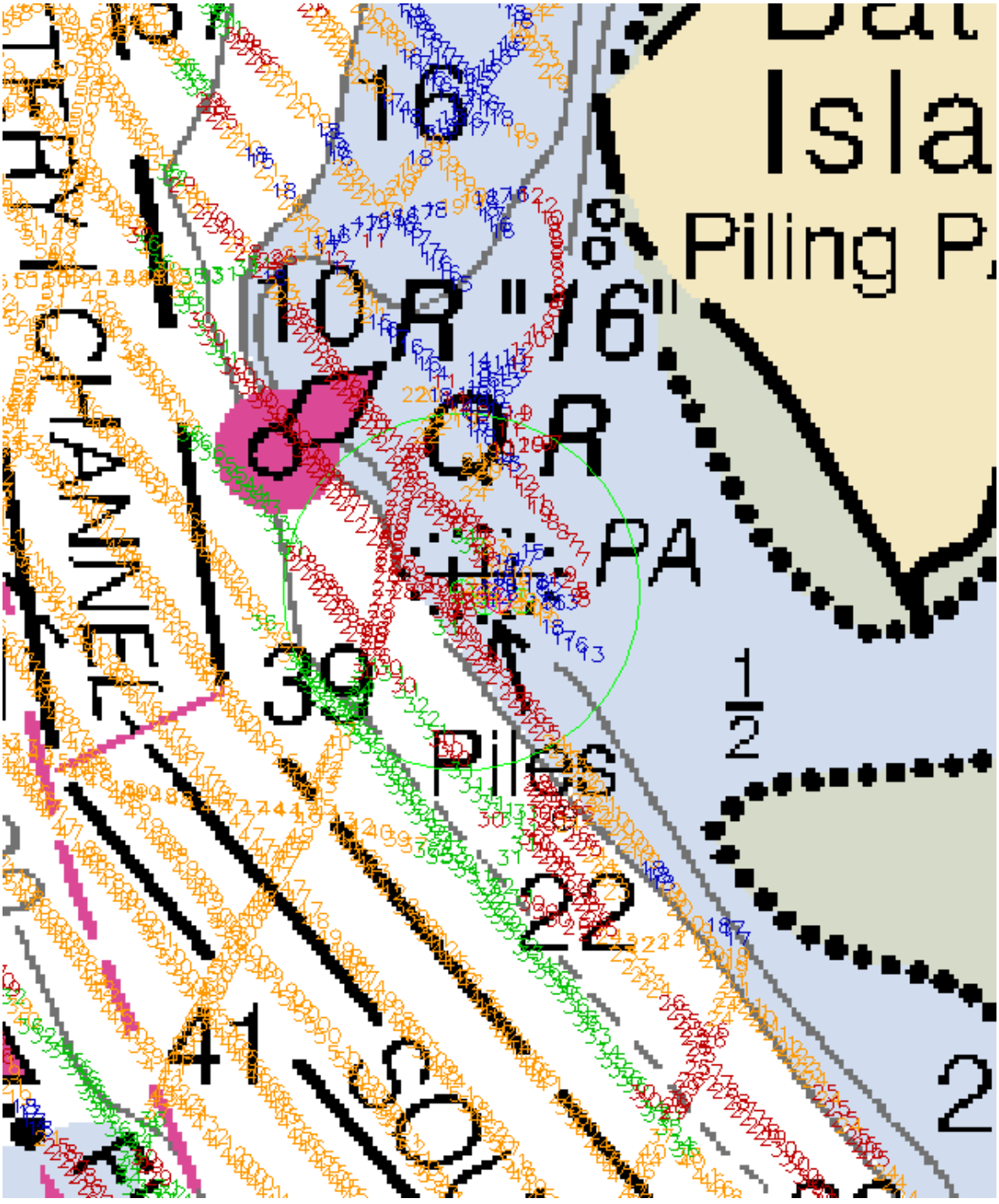


Figure 3.2.1

[Image file h:/compilation/h11762_g309-nrt2/h11762/caris/hdcs_data/h11762/awois 14054 sss.png does not exist.]

[Image file h:/compilation/h11762_g309-nrt2/h11762/caris/hdcs_data/h11762/awois 14054 sss 2.png does not exist.]

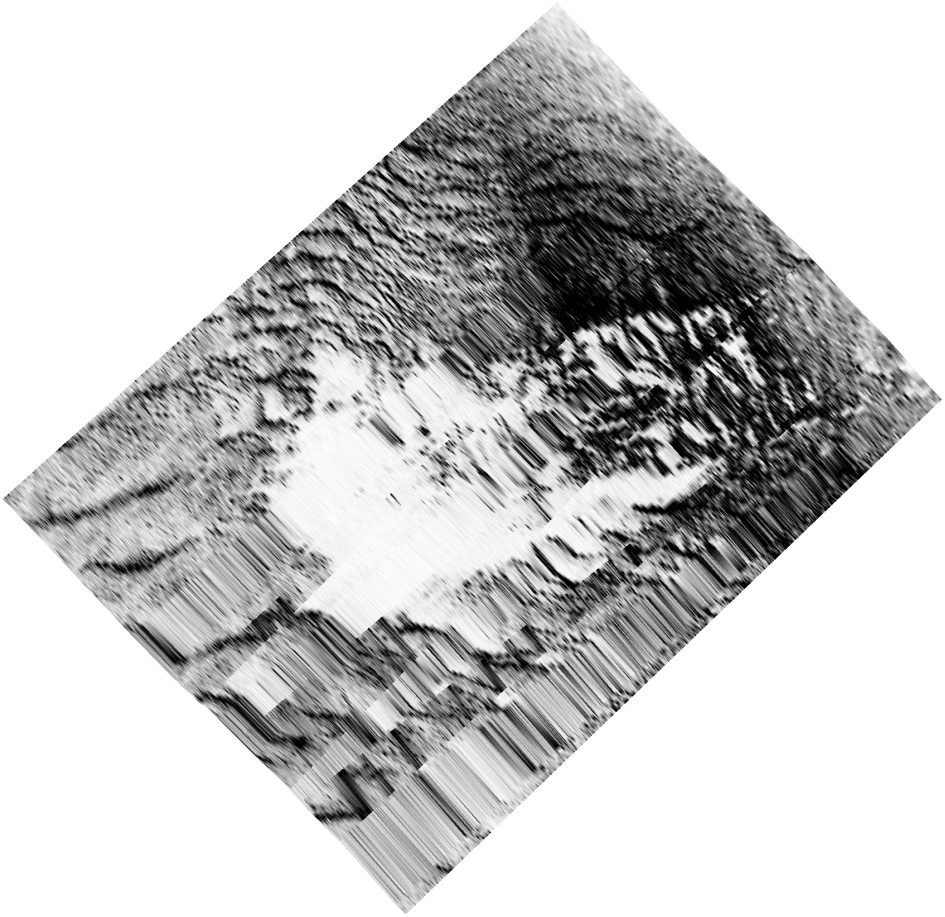


Figure 3.2.2

3.3) Awois#14055

Primary Feature for AWOIS Item #14055

Search Position: 33° 54' 40.8" N, 078° 00' 53.7" W

Historical Depth: [None]

Search Radius: 100

Search Technique: S2, ES, SD, DI

Technique Notes: [None]

History Notes:

****UNKNOWN SOURCE-- A SUBMERGED DANGEROUS WRECK WAS CHARTED AT 33°54'40.78" - 078°00'53.72", BEFORE 1969. (ENTERED CEH 9/2007)■■OPR-G309-NRT2-2007 , H11762, 2007: 200% sss verified the existance of this wreck.■■Recommend Retain as charted. RWR

Survey Summary

Survey Position: 33° 54' 39.4" N, 078° 00' 54.3" W

Least Depth: 4.73 m (= 15.52 ft = 2.586 fm = 2 fm 3.52 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2007-303.13:49:45.754 (10/30/2007)

Survey Line: h11762 / nrt2_1210_sb / 2007-303 / 018_1349

Profile/Beam: 331/1

Charts Affected: 11534_1, 11534_2, 11537_1, 11536_1, 11520_1, 11009_1

Remarks:

Historical WRK identified by: Richard Lawrence, Underwater Archaeologist Department of Cultural Resources Office of State Archaeology Division of Archives and History P.O. Box 58 Kure Beach, NC 28449 (p) 910-458-9042 (f) 910-458-9043

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11762/nrt2_1210_sb/2007-303/018_1349	331/1	0.00	000.0	Primary
h11762/nrt2_1210_klein3000hf_200sss/2007-289/sss071016162500	0001	11.23	261.9	Secondary
h11762/nrt2_1210_klein3000hf_100sss/2007-289/sss071016161400	0007	20.89	177.8	Secondary
AWOIS	AWOIS # 14055	46.67	200.2	Secondary

Hydrographer Recommendations

Retain as charted

Cartographically-Rounded Depth (Affected Charts):

15ft (11534_1, 11534_2, 11537_1, 11536_1)

2 ½fm (11520_1, 11009_1)

S-57 Data

Geo object 1: Wreck (WRECKS)

Attributes:

CATWRK - 2:dangerous wreck

CONVIS - 2:not visual conspicuous

INFORM - It is recommended that the dangerous sunken wreck symbol be deleted and that a 15 foot dangerous sunken wreck be charted in 33/54/39.36N, 78/00/54.35W.

OBJNAM - AWOIS 14055 - 15 foot dangerous sunken wreck

QUASOU - 6:least depth known

SORDAT - 20071211

SORIND - US,US,nsurf,H11762

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

VALSOU - 4.729 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

Do not concur. AWOIS Item 14055 is a dangerous sunken wreck symbol charted in 33/54/40.8N, 78/00/53.70W. It is recommended that the dangerous sunken wreck symbol be deleted and that a 15 foot dangerous sunken wreck be charted in 33/54/39.36N, 78/00/54.35W.

Feature Images

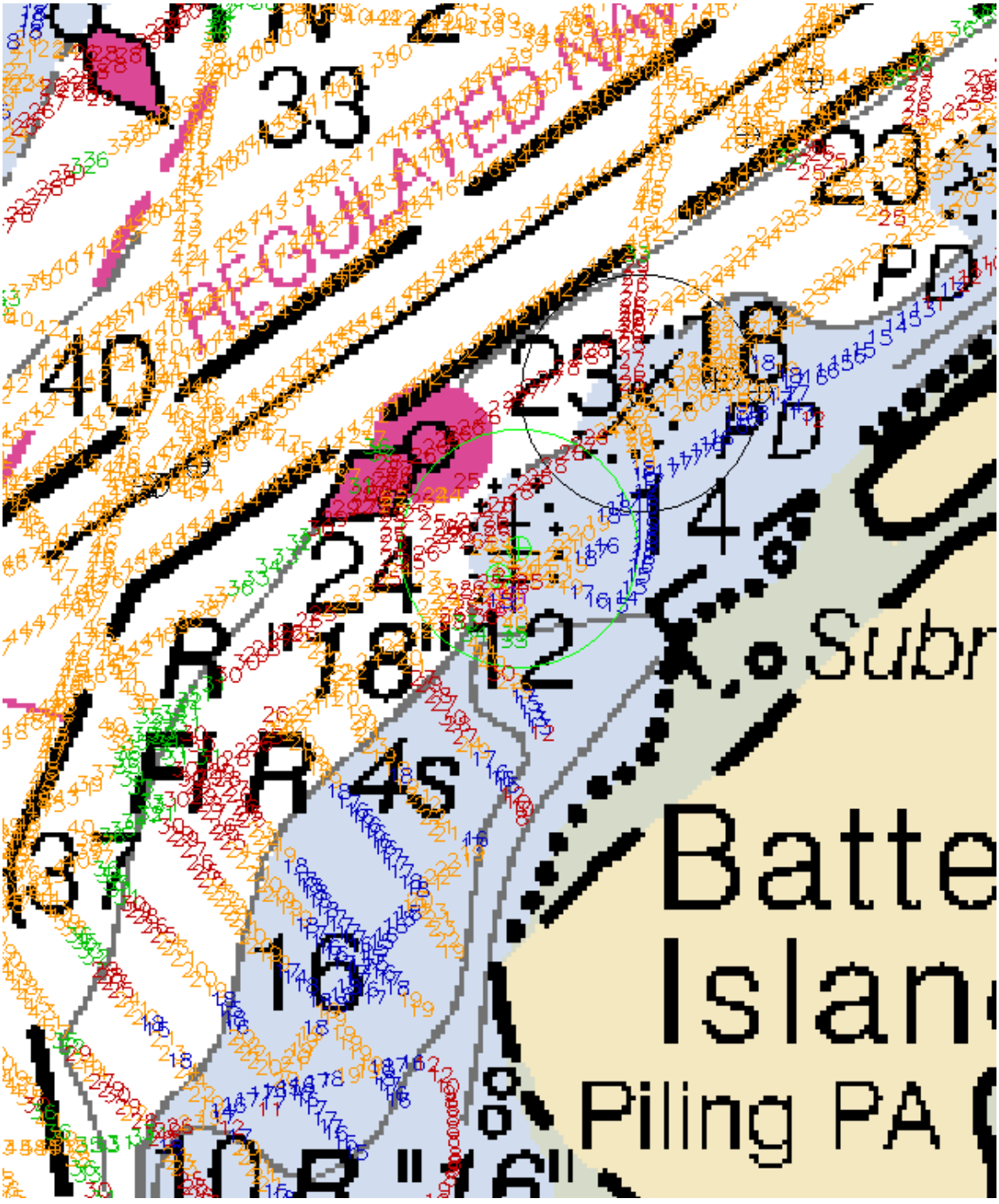


Figure 3.3.1

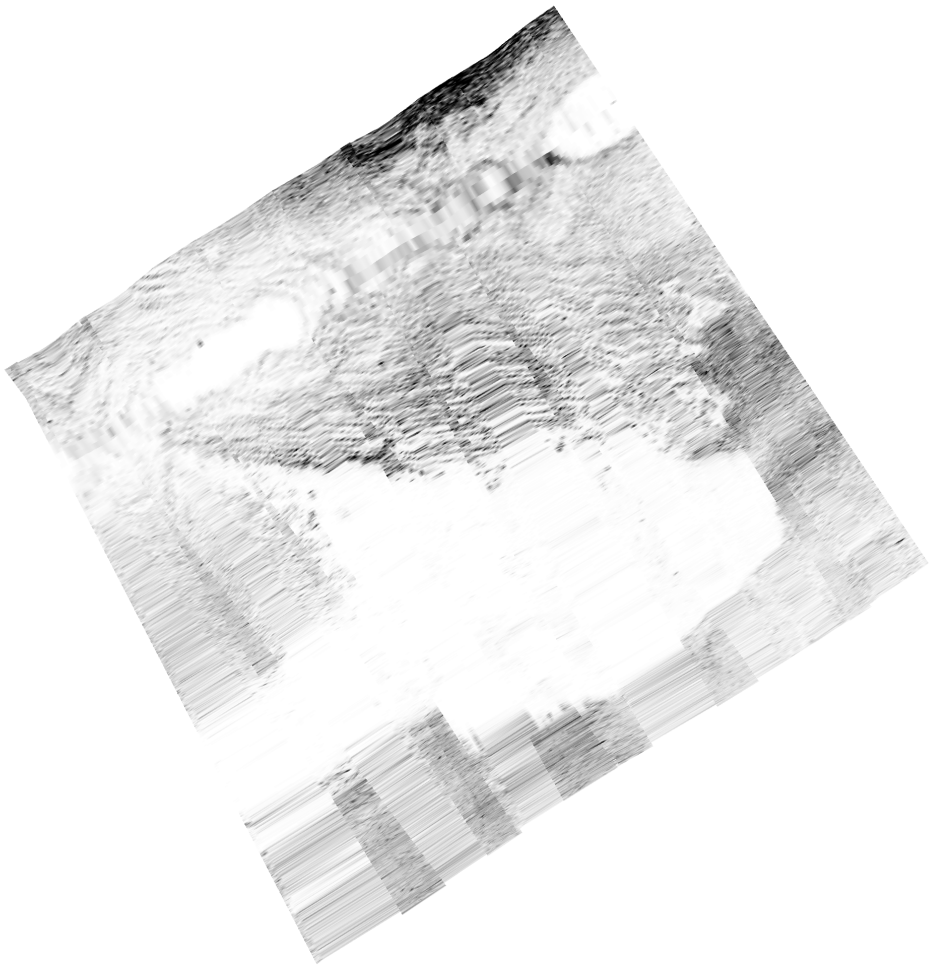


Figure 3.3.2

3.4) Awois#14056

Primary Feature for AWOIS Item #14056

Search Position: 33° 54' 45.0" N, 078° 00' 49.7" W

Historical Depth: [None]

Search Radius: 100

Search Technique: ES, S2, DI, SD

Technique Notes: [None]

History Notes:

****UNKNOWN SOURCE-- A SUBMERGED DANGEROUS WRECK WAS CHARTED AT 33°54'44.99" - 078°00'49.74" AND LABELED: PD, BEFORE 1969. (ENTERED CEH 9/2007)■■OPR-G309-NRT2-2007 , H11762, 2007: 200% sss verified the existance of this wreck.■■Recommend Retain as charted. RWR

Survey Summary

Survey Position: 33° 54' 45.4" N, 078° 00' 47.2" W

Least Depth: 6.00 m (= 19.67 ft = 3.279 fm = 3 fm 1.67 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2007-303.13:44:23.756 (10/30/2007)

Survey Line: h11762 / nrt2_1210_sb / 2007-303 / 024_1344

Profile/Beam: 157/1

Charts Affected: 11534_1, 11534_2, 11537_1, 11536_1, 11520_1, 11009_1

Remarks:

Historical WRK identified by: Richard Lawrence, Underwater Archaeologist Department of Cultural Resources Office of State Archaeology Division of Archives and History P.O. Box 58 Kure Beach, NC 28449 (p) 910-458-9042 (f) 910-458-9043

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11762/nrt2_1210_sb/2007-303/024_1344	157/1	0.00	000.0	Primary
h11762/nrt2_1210_klein3000hf_100sss/2007-289/sss071016161400	0009	3.42	055.4	Secondary
h11762/nrt2_1210_klein3000hf_200sss/2007-289/sss071016162500	0002	6.51	276.9	Secondary
h11762/nrt2_1210_klein3000hf_100sss/2007-289/sss071016161400	0010	36.17	287.2	Secondary
AWOIS	AWOIS # 14056	66.92	079.1	Secondary

Hydrographer Recommendations

Retain with adjustment to position, and removal of PD.

Cartographically-Rounded Depth (Affected Charts):

19ft (11534_1, 11534_2, 11537_1, 11536_1)

3 ¼fm (11520_1, 11009_1)

S-57 Data

Geo object 1:	Wreck (WRECKS)
Attributes:	CATWRK - 2:dangerous wreck
	CONVIS - 2:not visual conspicuous
	INFORM - It is recommended that the dangerous sunken wreck symbol and PD notation be deleted and that a 19 foot dangerous sunken wreck be charted in 33/54/45.40N, 78/00/47.18W.
	OBJNAM - AWOIS 14056 - 19 foot dangerous sunken wreck
	QUASOU - 6:least depth known
	SORDAT - 20071211
	SORIND - US,US,nsurf,H11762
	TECSOU - 1,2:found by echo-sounder,found by side scan sonar
	VALSOU - 5.996 m
	VERDAT - 12:Mean lower low water
	WATLEV - 3:always under water/submerged

Office Notes

Do not concur. AWOIS Item 14056 is a dangerous sunken wreck PD symbol and notation charted in 33/54/45.0N, 78/00/49.7W. It is recommended that the dangerous sunken wreck symbol and PD notation be deleted and that a 19 foot dangerous sunken wreck be charted in 33/54/45.40N, 78/00/47.18W.

Feature Images

Figure 3.4.1

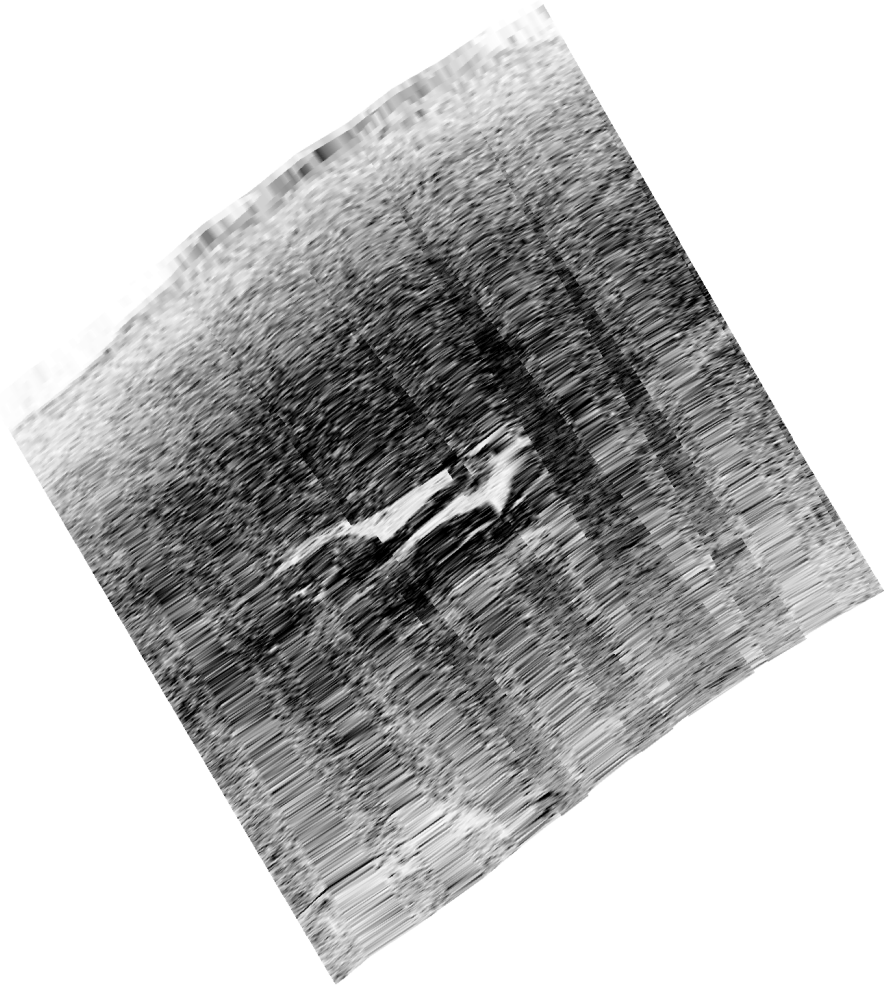


Figure 3.4.2

3.5) Awois#14057

Primary Feature for AWOIS Item #14057

Search Position: 33° 54' 51.0" N, 078° 00' 38.0" W

Historical Depth: [None]

Search Radius: 100

Search Technique: S2, ES, DI, SD

Technique Notes: [None]

History Notes:

****UNKNOWN SOURCE-- A SUBMERGED DANGEROUS WRECK WAS CHARTED AT 33°54'50.96" - 078°00'38.02" AND LEABELED: PD, BEFORE 1969. (ENTERED CEH 9/2007)■■OPR-G309-NRT2-2007 , H11762, 2007: 200% sss verified the existance of this wreck.■■Recommend Retain as charted, Remove PD. RWR

Survey Summary

Survey Position: 33° 54' 52.5" N, 078° 00' 37.2" W

Least Depth: 5.04 m (= 16.54 ft = 2.756 fm = 2 fm 4.54 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2007-303.13:31:08.015 (10/30/2007)

Survey Line: h11762 / nrt2_1210_sb / 2007-303 / 016_1330

Profile/Beam: 547/1

Charts Affected: 11534_1, 11534_2, 11537_1, 11536_1, 11520_1, 11009_1

Remarks:

Historical WRK identified by: Richard Lawrence, Underwater Archaeologist Department of Cultural Resources Office of State Archaeology Division of Archives and History P.O. Box 58 Kure Beach, NC 28449 (p) 910-458-9042 (f) 910-458-9043

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11762/nrt2_1210_sb/2007-303/016_1330	547/1	0.00	000.0	Primary
h11762/nrt2_1210_klein3000hf_100sss/2007-289/sss071016161400	0005	4.42	224.5	Secondary
h11762/nrt2_1210_klein3000hf_200sss/2007-289/sss071016163800	0003	19.10	287.1	Secondary
h11762/nrt2_1210_klein3000hf_100sss/2007-289/sss071016161400	0001	47.23	300.6	Secondary
AWOIS	AWOIS # 14057	51.03	024.2	Secondary

Hydrographer Recommendations

Retain as charted with renmoval of the PD.

Cartographically-Rounded Depth (Affected Charts):

16ft (11534_1, 11534_2, 11537_1, 11536_1)

2 ¾fm (11520_1, 11009_1)

S-57 Data

Geo object 1: Wreck (WRECKS)

Attributes:

CATWRK - 2:dangerous wreck

CONVIS - 2:not visual conspicuous

INFORM - It is recommended that the dangerous sunken wreck symbol and PD notation be deleted and that a 16 foot dangerous sunken wreck be charted in 33/54/52.47N, 78/00/37.20W.

OBJNAM - AWOIS 14057 - 16 foot dangerous sunken wreck

QUASOU - 6:least depth known

SORDAT - 20071211

SORIND - us,us,nsurf,H11762

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

VALSOU - 5.041 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

Do not concur. AWOIS Item 14057 is a dangerous sunken wreck PD symbol and notation charted in 33/54/51.0N, 78/00/38.0W. It is recommended that the dangerous sunken wreck symbol and PD notation be deleted and that a 16 foot dangerous sunken wreck be charted in 33/54/52.47N, 78/00/37.20W.

Feature Images

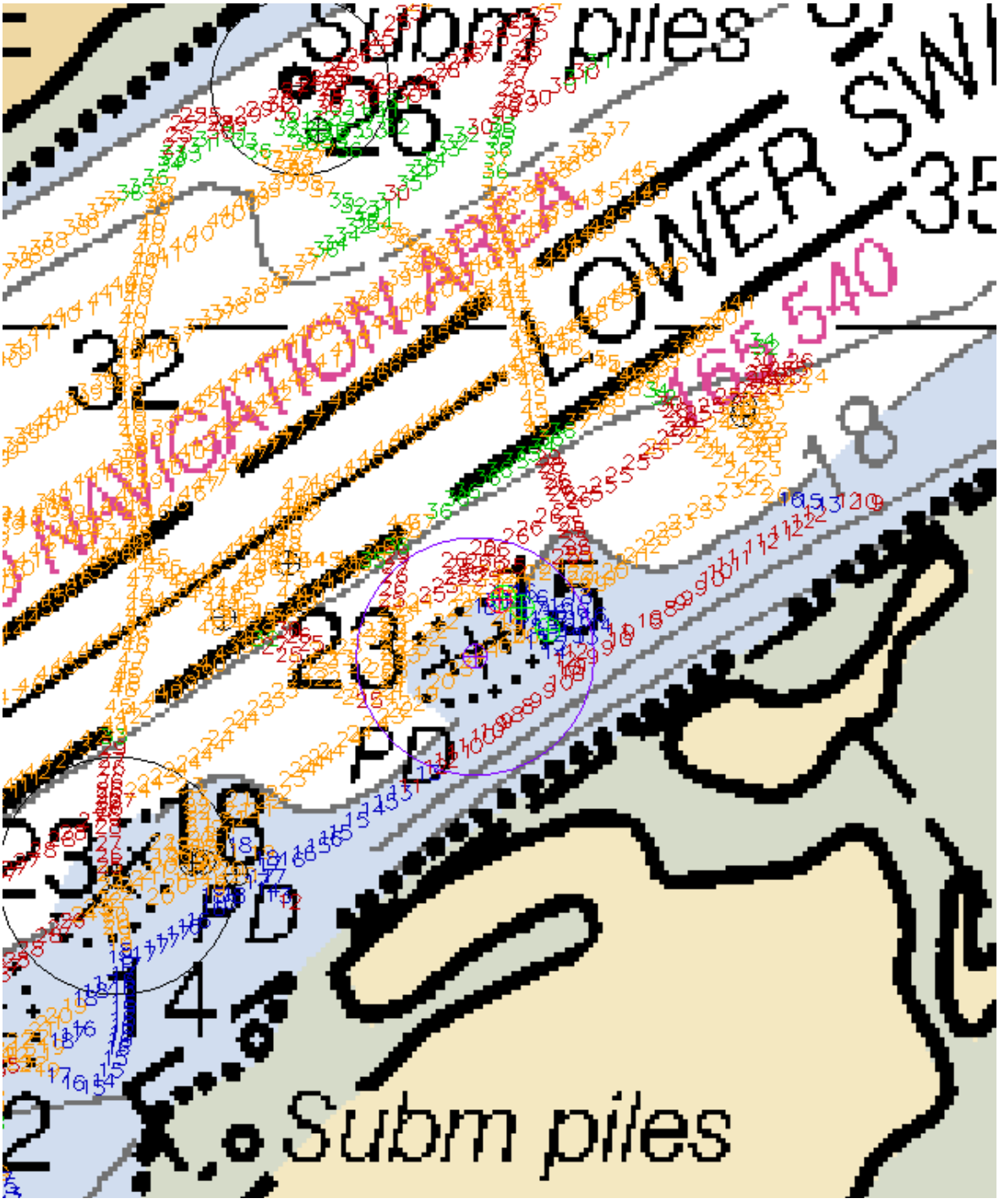


Figure 3.5.1

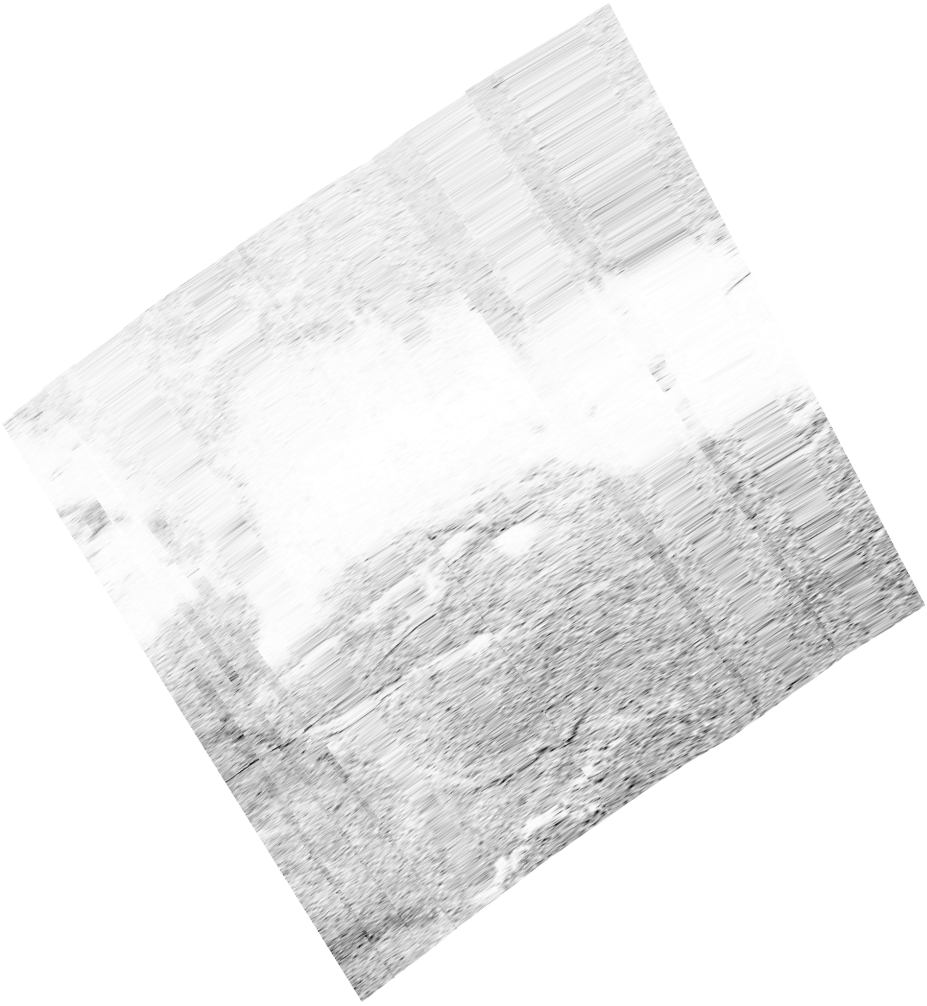
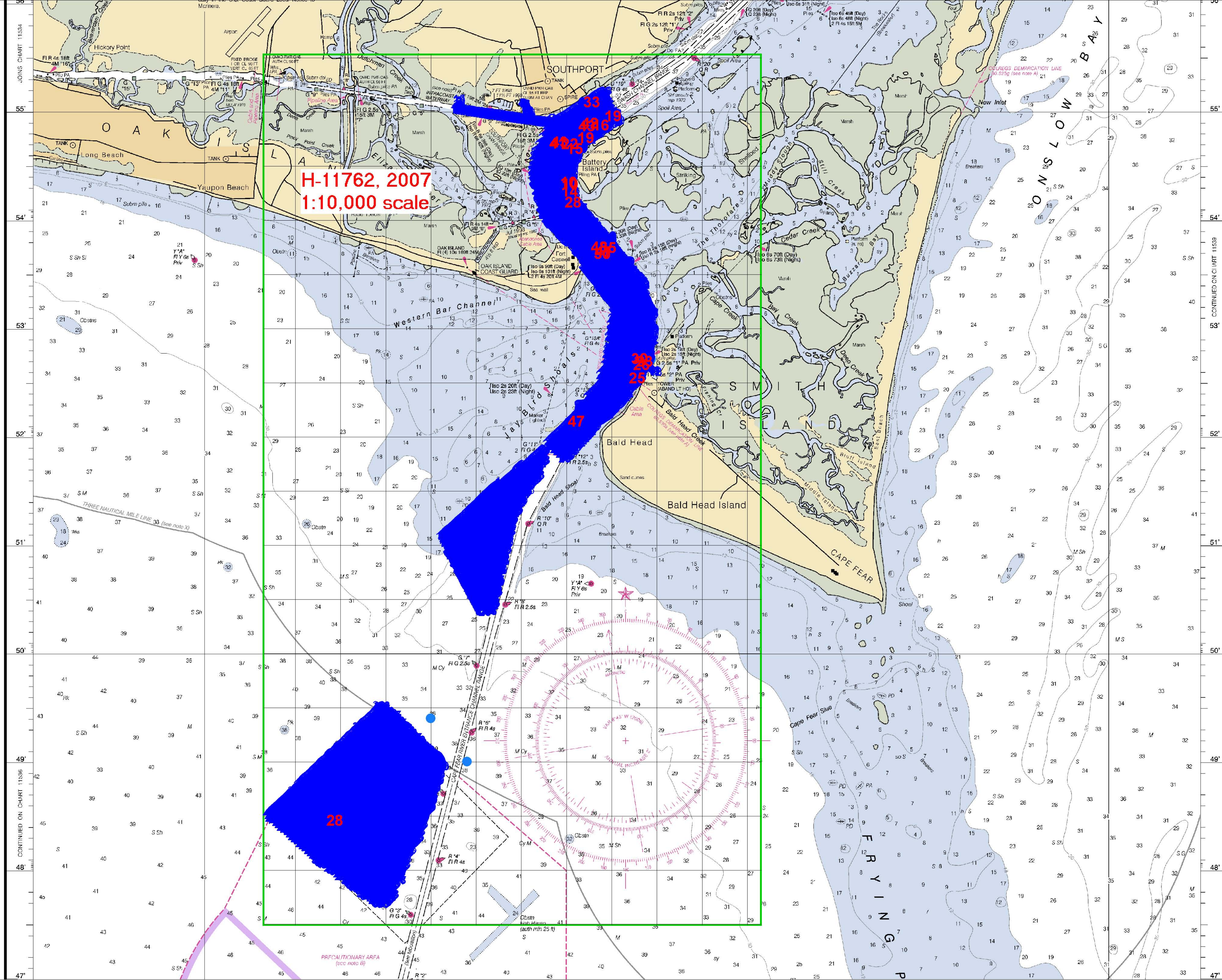


Figure 3.5.2

APPENDIX III
FINAL PROGRESS SKETCH AND SURVEY



H-11762, 2007
1:10,000 scale
JOINS CHART 11534
CONTINUED ON CHART 11539
CONTINUED ON CHART 11536
SOUTHPORT
O A K I S L A N D
Long Beach
Yaupon Beach
Hickory Point
Battery Island
Fort Caswell
OAK ISLAND COAST GUARD
Western Bar Channel
Jay Bird Shoals
Bald Head
Bald Head Island
Bald Head Shoal
S M I T H I S L A N D
CAPE FEAR
ONSLOW BAY
New Inlet
Cape Fear Slue
FRYING P
THREE NAUTICAL MILE LINE (see note X)
CAPE FEAR RIVER ENTRANCE CHANNEL RANGE
PRECAUTIONARY AREA (see note B)
COLREGS DEMARCATION LINE
INTRACOASTAL WATERWAY

APPENDIX IV
TIDES AND WATER LEVELS

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

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE : January 18, 2008

HYDROGRAPHIC BRANCH: Atlantic
HYDROGRAPHIC PROJECT: OPR-G309-NRT2-2007
HYDROGRAPHIC SHEET: H11762

LOCALITY: Southport to the Approach to Cape Fear River, NC
TIME PERIOD: September 25, 2007 - December 11, 2007

TIDE STATION USED: 865-9897 Sunset Beach, NC
Lat. 33° 51.9′ N Long. 78° 30.4' W
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 1.561 meters

TIDE STATION USED: 865-9084 Southport, NC
Lat. 33° 54.9' N Long. 78° 01.1' W
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 1.340 meters

REMARKS: RECOMMENDED ZONING

Preliminary zoning is accepted as the final zoning for project OPR-G309-NRT2-2007, H11762 during the time period between September 25, 2007 and December 11, 2007.

Please use the zoning file "G309NRT22007CORP" submitted with the project instructions for OPR-G309-NRT2-2007. Zones SA92, SA93, SA94, SA95, SA96, SA98, SA99, CFR1, CFR2, CFR3, CFR4, CFR7 and CFR8 are the applicable zones for H11762.

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).

_____
CHIEF, PRODUCTS AND SERVICES DIVISION

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

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE : January 18, 2008

HYDROGRAPHIC BRANCH: Atlantic
HYDROGRAPHIC PROJECT: OPR-G309-NRT2-2007
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Lat. 33° 54.9' N Long. 78° 01.1' W
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 1.340 meters

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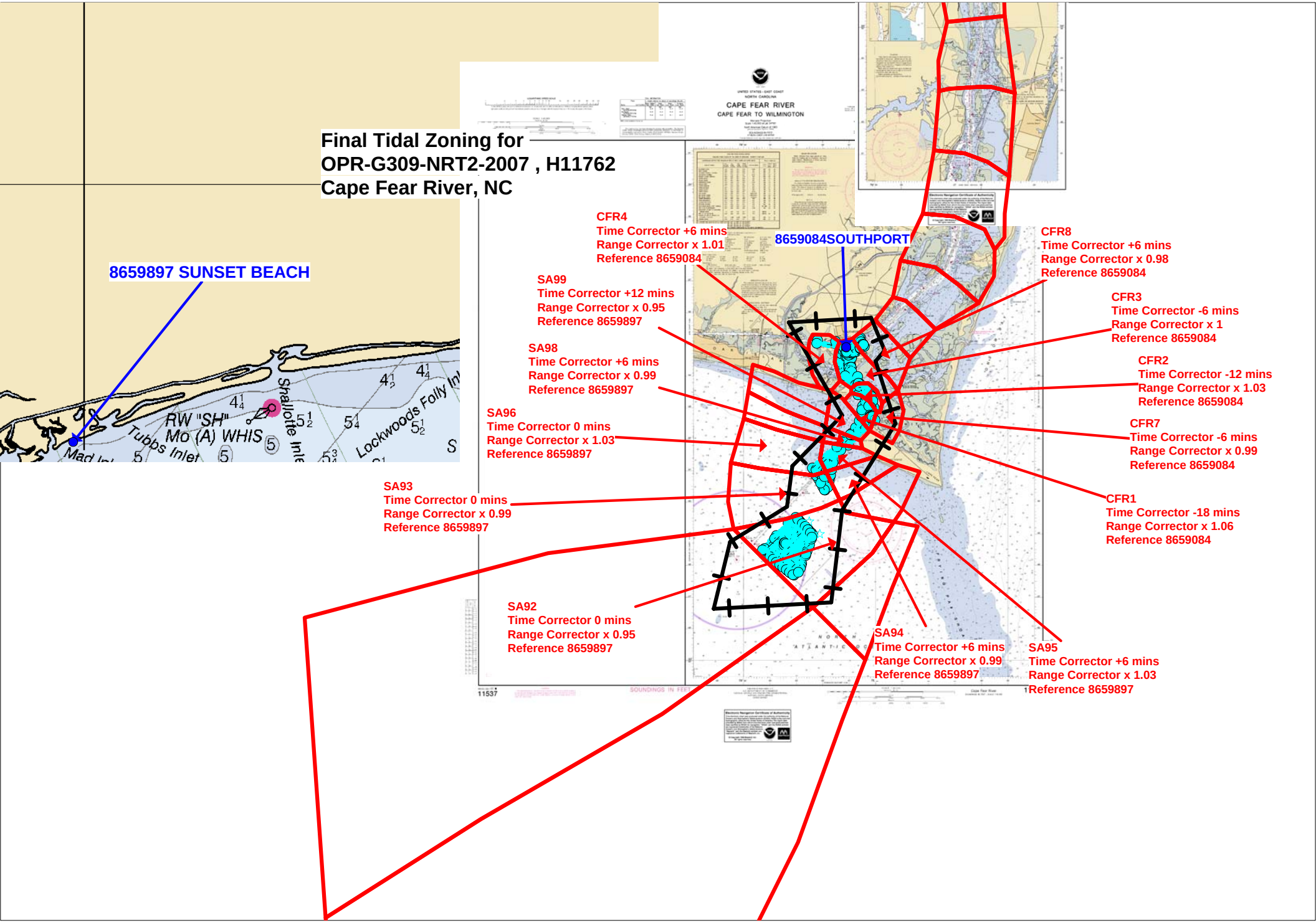
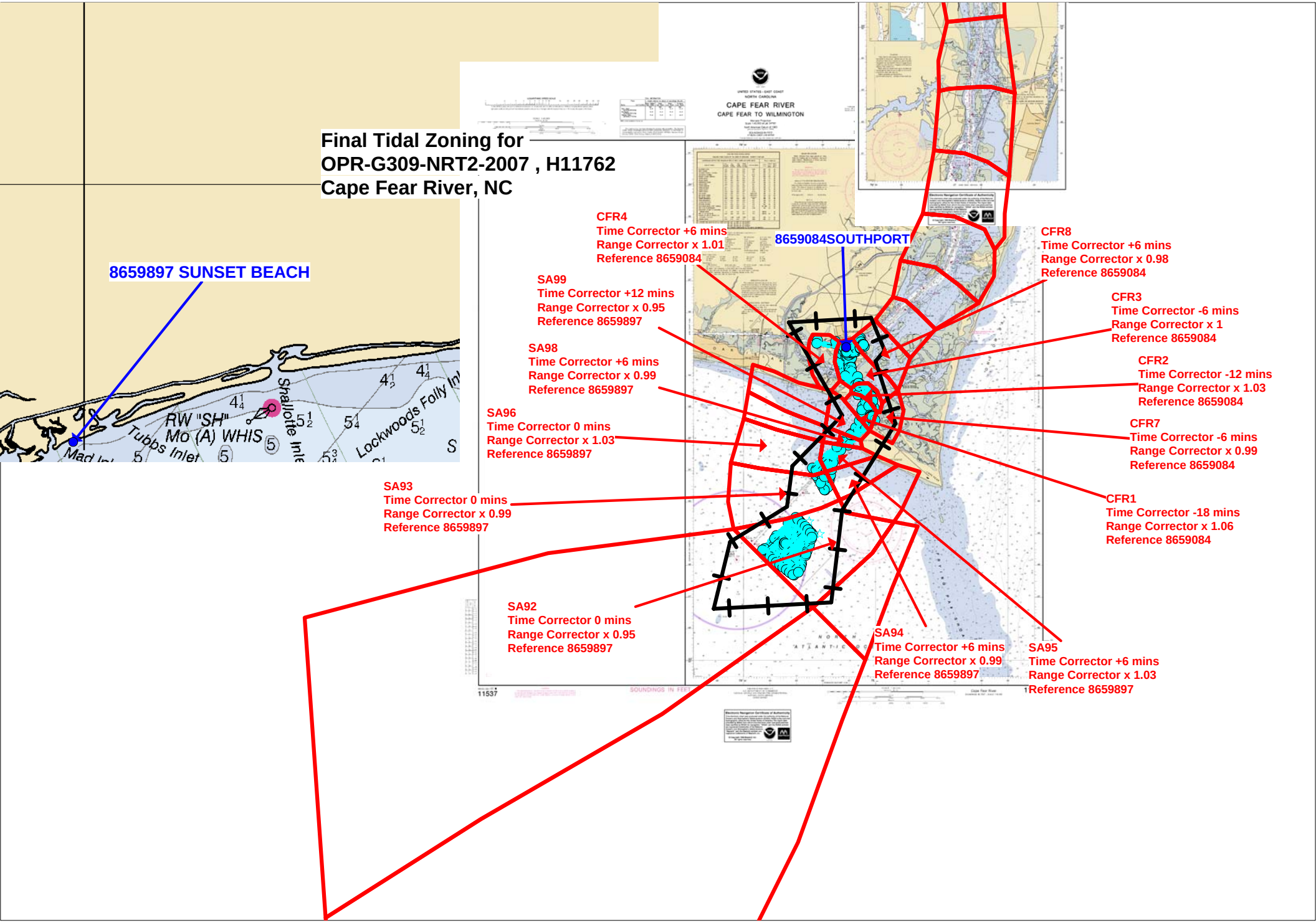
Note 1: Provided time series data are tabulated in metric units (meters), relative to MLLW and on Greenwich Mean Time on the 1983-2001 National Tidal Datum Epoch (NTDE).

_____
CHIEF, PRODUCTS AND SERVICES DIVISION


Final Tidal Zoning for
OPR-G309-NRT2-2007 , H11762
Cape Fear River, NC
8659897 SUNSET BEACH
8659084SOUTHPORT
CAPE FEAR RIVER
CAPE FEAR TO WILMINGTON
RW "SH"
Mo (A) WHIS
Tubbs Inlet
Shallotte Inlet
Lockwoods Folly Inlet
CFR4
Time Corrector +6 mins
Range Corrector x 1.01
Reference 8659084
SA99
Time Corrector +12 mins
Range Corrector x 0.95
Reference 8659897
SA98
Time Corrector +6 mins
Range Corrector x 0.99
Reference 8659897
SA96
Time Corrector 0 mins
Range Corrector x 1.03
Reference 8659897
SA93
Time Corrector 0 mins
Range Corrector x 0.99
Reference 8659897
SA92
Time Corrector 0 mins
Range Corrector x 0.95
Reference 8659897
SA94
Time Corrector +6 mins
Range Corrector x 0.99
Reference 8659897
SA95
Time Corrector +6 mins
Range Corrector x 1.03
Reference 8659897
CFR8
Time Corrector +6 mins
Range Corrector x 0.98
Reference 8659084
CFR3
Time Corrector -6 mins
Range Corrector x 1
Reference 8659084
CFR2
Time Corrector -12 mins
Range Corrector x 1.03
Reference 8659084
CFR7
Time Corrector -6 mins
Range Corrector x 0.99
Reference 8659084
CFR1
Time Corrector -18 mins
Range Corrector x 1.06
Reference 8659084


Final Tidal Zoning for
OPR-G309-NRT2-2007 , H11762
Cape Fear River, NC
8659897 SUNSET BEACH
8659084SOUTHPORT
CAPE FEAR RIVER
CAPE FEAR TO WILMINGTON
RW "SH"
Mo (A) WHIS
Tubbs Inlet
Shallotte Inlet
Lockwoods Folly Inlet
CFR4
Time Corrector +6 mins
Range Corrector x 1.01
Reference 8659084
SA99
Time Corrector +12 mins
Range Corrector x 0.95
Reference 8659897
SA98
Time Corrector +6 mins
Range Corrector x 0.99
Reference 8659897
SA96
Time Corrector 0 mins
Range Corrector x 1.03
Reference 8659897
SA93
Time Corrector 0 mins
Range Corrector x 0.99
Reference 8659897
SA92
Time Corrector 0 mins
Range Corrector x 0.95
Reference 8659897
SA94
Time Corrector +6 mins
Range Corrector x 0.99
Reference 8659897
SA95
Time Corrector +6 mins
Range Corrector x 1.03
Reference 8659897
CFR8
Time Corrector +6 mins
Range Corrector x 0.98
Reference 8659084
CFR3
Time Corrector -6 mins
Range Corrector x 1
Reference 8659084
CFR2
Time Corrector -12 mins
Range Corrector x 1.03
Reference 8659084
CFR7
Time Corrector -6 mins
Range Corrector x 0.99
Reference 8659084
CFR1
Time Corrector -18 mins
Range Corrector x 1.06
Reference 8659084

APPENDIX V
SUPPLEMENTAL SURVEY AND CORRESPONDENCE

Bottom Sample H-11762, 2007

Registry Number: H11762

State: North Carolina

Locality: Wilmington

Sub-locality: Southport to the Approach to Cape Fear River

Project Number: OPR-G309-NRT2-07

Survey Date: 10/16/2007

Included are bottom samples taken to compare with charted areas. They were aquired within a dump area. No samples were taken in the Remaining survey area , as none were on existing charts, and No anchorage areas exist inside the survey limits.

Charts Affected

Number	Version	Date	Scale
11537	37th Ed.	12/01/2006	1:40000
11536	18th Ed.	05/01/2005	1:80000
11520	42nd Ed.	09/01/2005	1:432720
11009	37th Ed.	07/01/2004	1:1200000

Features

No.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude
1.1	S Sh	Sounding	9.20 m	33° 48' 37.231" N	078° 03' 37.175" W
1.2	S	Sounding	9.21 m	33° 48' 17.291" N	078° 03' 06.730" W
1.3	S	Sounding	10.39 m	33° 48' 43.629" N	078° 02' 43.780" W
1.4	S Sh	Sounding	9.78 m	33° 49' 04.920" N	078° 03' 11.148" W

1 - Bottom Samples

1.1) S Sh

Survey Summary

Survey Position:	33° 48' 37.231" N, 078° 03' 37.175" W
Least Depth:	9.20 m
Timestamp:	2007-289.14:34:09.000 (10/16/2007)
DP Dataset:	h11762 / nrt2_1210_dpnonechosounder / 2007-289 / os dump bs h11762
Profile/Beam:	1/1
Charts Affected:	11537_1, 11536_1, 11520_1, 11009_1

Remarks:

crs br S brk Sh

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

30ft (11537_1, 11536_1)

5fm (11520_1, 11009_1)

S-57 Data

Geo object 1:	Seabed area (SBDARE)
Attributes:	COLOUR - 8,:brown,
	NATQUA - 3,4:coarse,broken
	NATSUR - 4,17:sand,shells
	WATLEV - 3:always under water/submerged

Feature Images

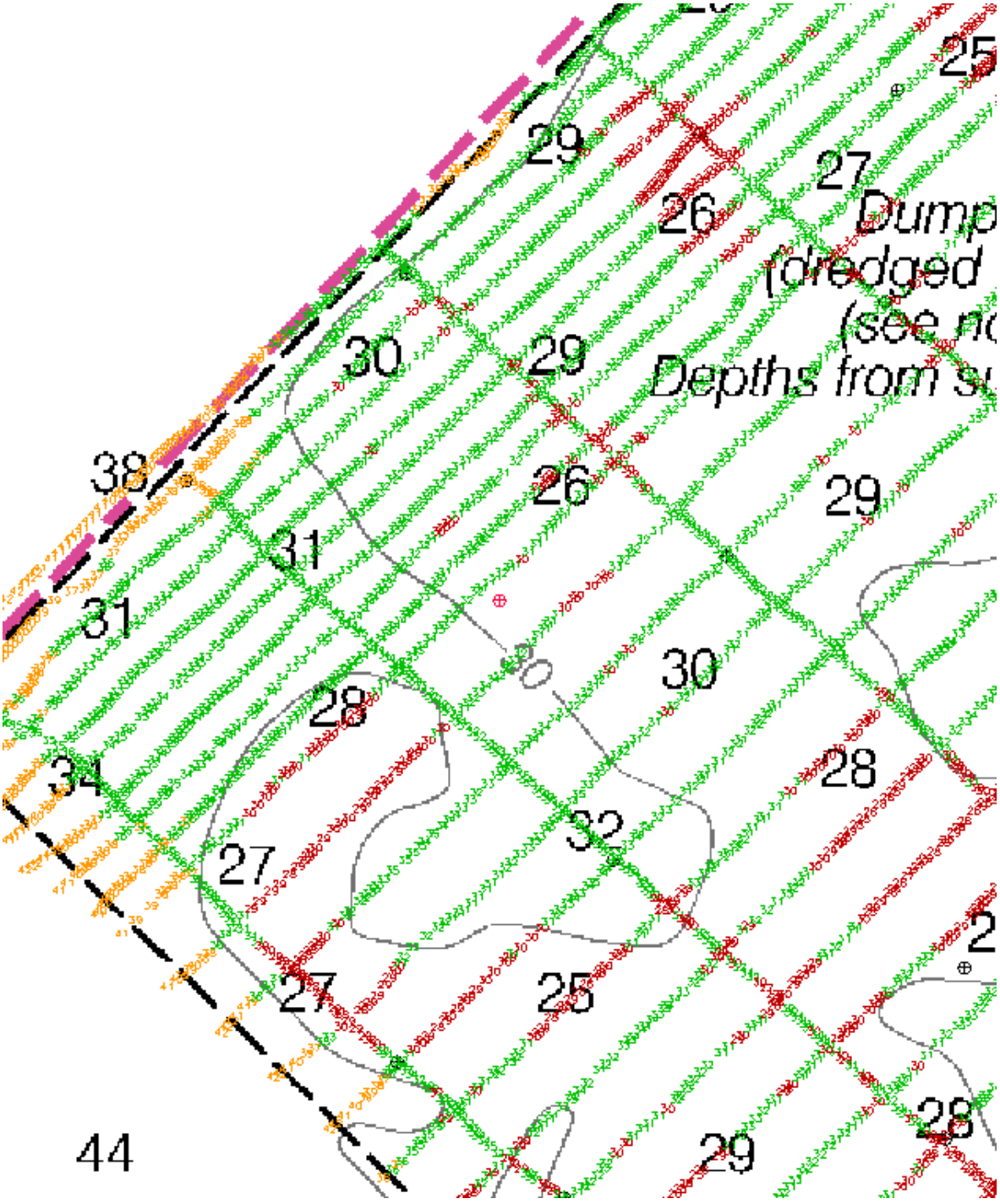


Figure 1.1.1

1.2) S

Survey Summary

Survey Position:	33° 48' 17.291" N, 078° 03' 06.730" W
Least Depth:	9.21 m
Timestamp:	2007-289.14:40:00.000 (10/16/2007)
DP Dataset:	h11762 / nrt2_1210_dpnonechosounder / 2007-289 / os dump bs h11762
Profile/Beam:	2/1
Charts Affected:	11537_1, 11536_1, 11520_1, 11009_1

Remarks:

fne br S

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

30ft (11537_1, 11536_1)

5fm (11520_1, 11009_1)

S-57 Data

Geo object 1:	Seabed area (SBDARE)
Attributes:	COLOUR - 8:brown
	NATQUA - 1:fine
	NATSUR - 4:sand
	WATLEV - 3:always under water/submerged

Feature Images

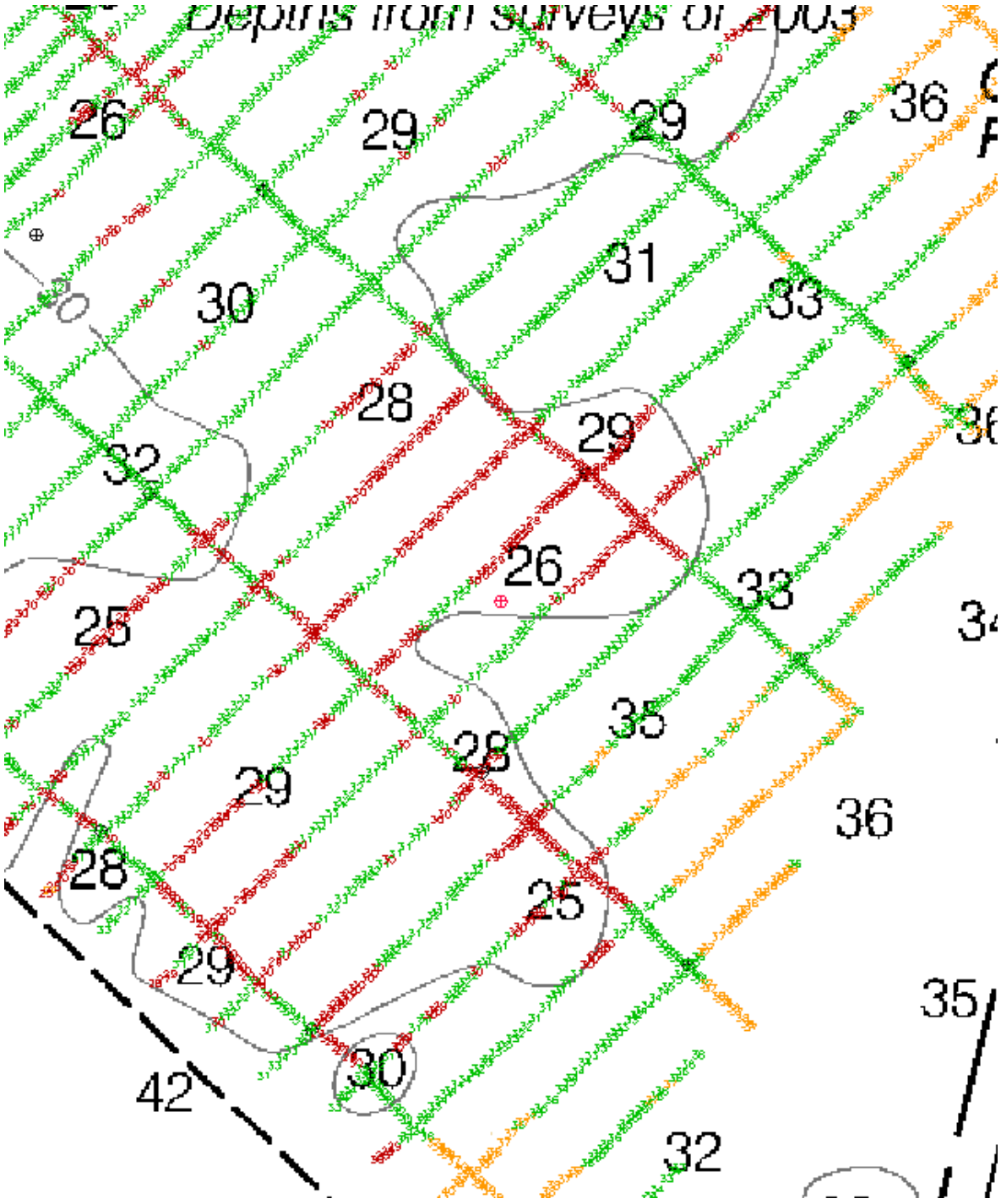


Figure 1.2.1

1.3) S

Survey Summary

Survey Position:	33° 48' 43.629" N, 078° 02' 43.780" W
Least Depth:	10.39 m
Timestamp:	2007-289.14:45:28.000 (10/16/2007)
DP Dataset:	h11762 / nrt2_1210_dpnonechosounder / 2007-289 / os dump bs h11762
Profile/Beam:	3/1
Charts Affected:	11537_1, 11536_1, 11520_1, 11009_1

Remarks:

fne br S

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

34ft (11537_1, 11536_1)

5 ½fm (11520_1, 11009_1)

S-57 Data

Geo object 1:	Seabed area (SBDARE)
Attributes:	COLOUR - 8:brown
	NATQUA - 1:fine
	NATSUR - 4:sand
	WATLEV - 3:always under water/submerged

Feature Images

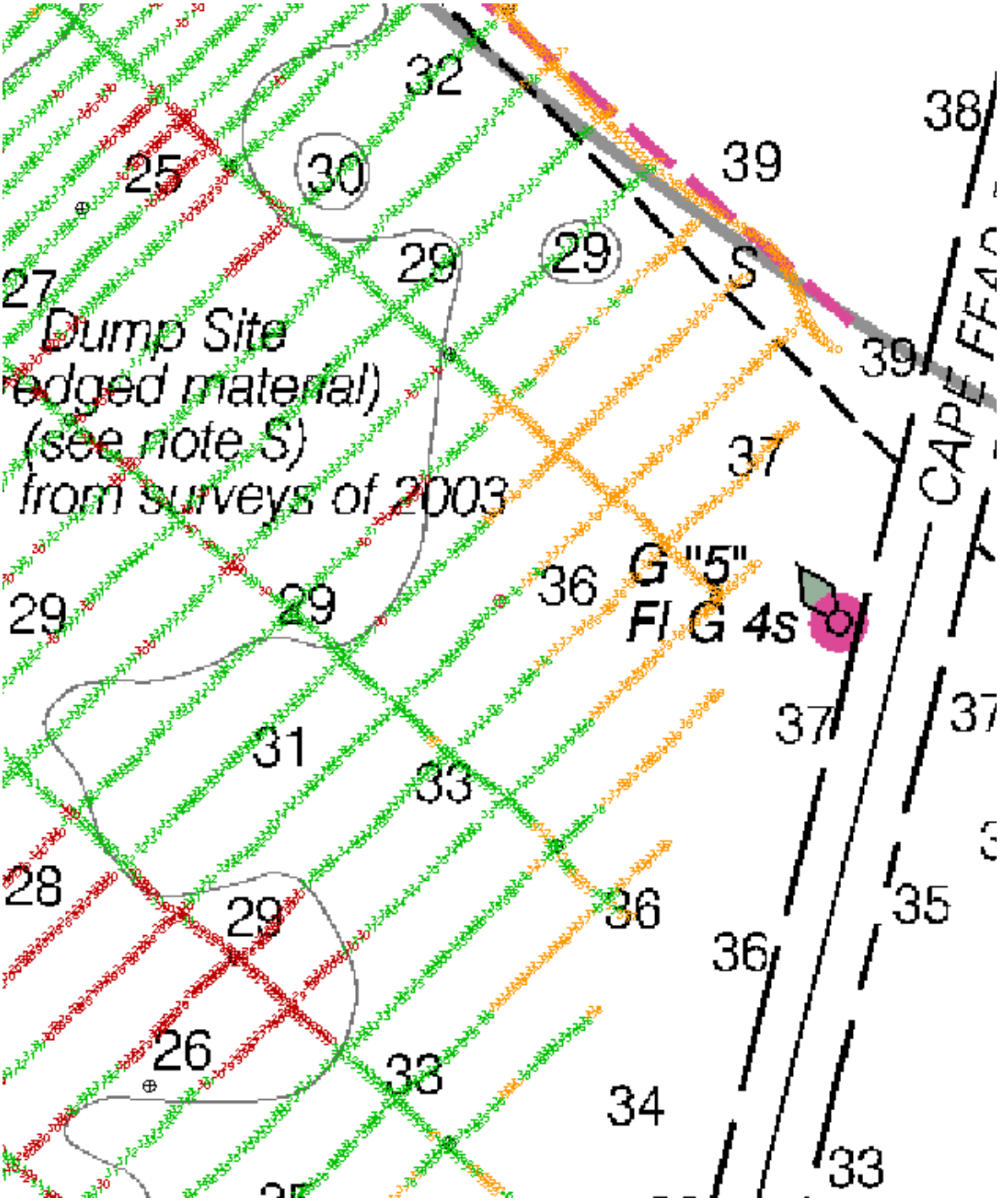


Figure 1.3.1

1.4) S Sh

Survey Summary

Survey Position:	33° 49' 04.920" N, 078° 03' 11.148" W
Least Depth:	9.78 m
Timestamp:	2007-289.14:50:30.000 (10/16/2007)
DP Dataset:	h11762 / nrt2_1210_dpnonechosounder / 2007-289 / os dump bs h11762
Profile/Beam:	4/1
Charts Affected:	11537_1, 11536_1, 11520_1, 11009_1

Remarks:

crs br S brk Sh

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

32ft (11537_1, 11536_1)

5 ¼fm (11520_1, 11009_1)

S-57 Data

Geo object 1:	Seabed area (SBDARE)
Attributes:	COLOUR - 8,:brown,
	NATQUA - 3,4:coarse,broken
	NATSUR - 4,17:sand,shells
	WATLEV - 3:always under water/submerged

Feature Images

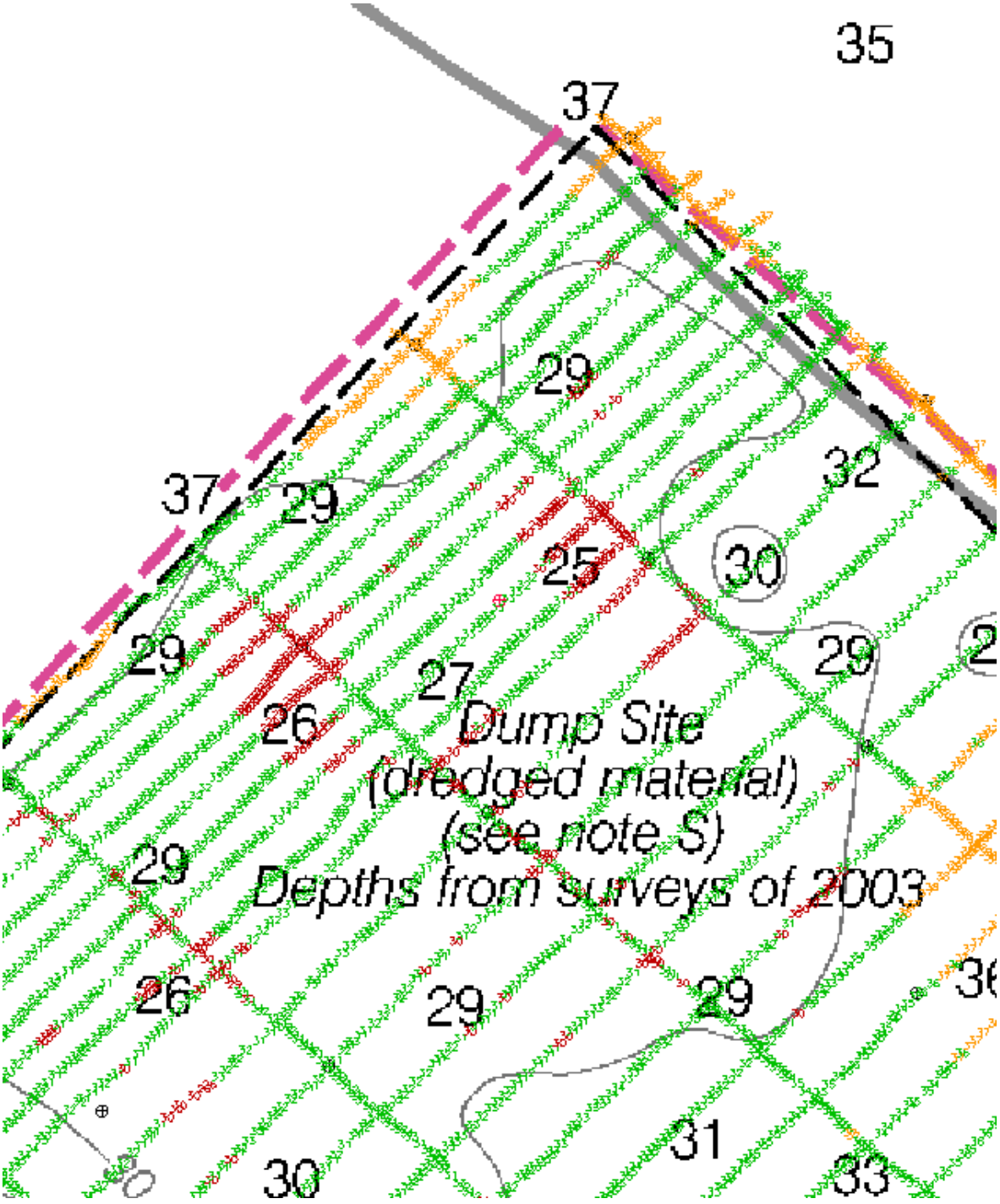


Figure 1.4.1

LEAD LINE COMPARISON

EchoSounder
Model: Odom CV Draft: 0.5 m Project No. OPR-G309-NRT2-07
Serial No. 98295-081304 Depth Units: Meters Vessel No. S-1210 Field Sheet No. H11762

Day Number	Lead Line Depth*	Lead Line Corrector	Corrected Lead Line Depth (A)	Digital Depth		Velocity Corrector (C)	Corrected Digital Depth (D=B+C)	Digital Instrument Corrector (A-D)
				Depth	Depth + Draft (B)			
268	5.0 0 5.0			4.5	5.0 0 5.0 0			
282	6.4 0 6.4			5.9	6.4 0 6.4 0			
289	5.8 0 5.8			5.3	5.8 0 5.8 0			
296	5.3 0 5.3			4.8	5.3 0 5.3 0			
303	6.5 0 6.5			6.0	6.5 0 6.5 0			
309	7.0 0 7.0			6.5	7.0 0 7.0 0			
345	5.6 0 5.6			5.1	5.6 0 5.6 0			

*Lead line depth read at water surface. Computed By__DBE____ Checked By__RWR_____

ATLANTIC HYDROGRAPHIC BRANCH
EVALUATION REPORT to Accompany
Survey H11762 (2007)

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

B. DATA ACQUISITION AND PROCESSING

B.1 DATA PROCESSING

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

HSTP PYDRO version 8.7 r2368-1
CARIS HIPS/SIPS version 6.1 SP2
CARIS Bathy DataBASE Manager version 2.1 SP1
CARIS Hom ENC version 3.3 SP3 HF8
CARIS S-57 Composer version 2.0

B.2. QUALITY CONTROL

B.2.1. H-Cell

The AHB source depth gird for the survey's nautical chart update product entailed the use of the generated 2 meter grid made during the office processing ESAR review. This was used to create a selected sounding set which is approximately 10 times the number of charted depths. The selected soundings were then tinned, a base surface created from the tin and then shifted .75 ft for use of contours. The chart scale selected soundings are a subset of the survey scale selected soundings. The surface model is referenced when selecting the chart scale soundings, to ensure that the selected soundings portrayed the bathymetry within the common area.

The SAHOB files included depth areas (DEPARE), sounding selections (SOUNDG), features (WRECKS, OBSTRN, SBDARE, PILPNT), meta objects (M_COVR, M_QUAL), depth contours (DEPCNT), and cartographic Blue Notes.

All of the components with the exception of the sounding selection were inserted into one feature layer (including the Bluenotes, as dictated by Hydrographic Technical Directive 2008-8), and this layer was exported into S-57 format in order to create the H-Cell deliverable. Similarly, the sounding selection was exported into S-57 format separately, and then both S-57 files were processed in CARIS HOM to convert the metric units to feet. The final products are two S-57 files, one that contains the chart soundings, all the features, Meta objects, and Bluenotes (H11762_CS.000), and one that contains the sounding selection (H11762_SS.000). Finally, quality assurance checks were made utilizing CARIS S-57 Composer version 2.0 validation checks.

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

H11789 CARIS H-Cell final deliverables include the following products:

US5H11762_CS.000	1:40,000 Scale	H11762 H-Cell with Chart Scale Selected Soundings
US5H11762_SS.000	1:10,000 Scale	H11762 Selected Soundings (Survey Scale)

B.2.c. Junctions

Present survey H11762 (2007) junctions with survey H11761 (2007) to the north and H11411 (2006) to the south and east. Depths compared well between the present survey and survey H11761 (2007). Depths agreement is within 0-2 foot in all areas. Depths compared well between the present survey and survey H11411 (2006). Depths agreement is within 0-2 foot in all areas. Present survey depths are in harmony with the charted hydrography to the west.

C. VERTICAL AND HORIZONTAL CONTROL

Final vertical correction processing was completed by the field unit with no additional correction required by Atlantic Hydrographic Branch. The field unit applied final verified water levels in conjunction with the preliminary tidal zoning which was accepted and approved by N/OPSI CO-OPS as the final zoning for H11762. Sounding datum is Mean Lower Low Water (MLLW). Vertical datum is Mean High Water (MHW)

Horizontal control used for this survey during data acquisition is based upon the North American Datum of 1983 (NAD83), UTM projection zone 17. Office ENC processing of this survey required translating the datum to meet S-57 ENC requirements.

D. RESULTS AND RECOMMENDATIONS

D.1 CHART COMPARISON

11537 (37th Edition, DEC/06)
Corrected through NM 09/20/2008
Corrected through LNM 09/09/2008
Scale 1:40,000

ENC Comparison

US5NC12M
Cape Fear River
Edition 22
Update Application Date 2008-07-03
Issue Date 2008-07-03
References: Chart 11537

D.1.1. Hydrography

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

1. Three *piles* were located in the entrance to an uncharted harbor in the vicinity of Latitude 33°55'02.97"N, Longitude 78°02'10.86"W during the present survey. Chart scale is going to only allow for charting one pile so it is suggested

that a *pile symbol* be charted in the above location and that the charted notation be revised to *Piles*.

2. There is a conflict in Southport Channel in the right inside quarter where the charted controlling depth is 43 feet but the present survey found a 42 foot depth in Latitude 33°54'03.99"N, Longitude 78°01'00.57"W.

4. In the Right outside quarter of Southport Channel there are several conflicts between the controlling depth of 40.8 feet and the present survey depths. In the right outside quarter of the channel between Latitude 33°54'03.99"N, Longitude 78°01'00.57"W and Latitude 33°54'12.03'N, Longitude 78°01'05.51"W there are depths of 38.27 feet to 40.13 feet.

5. There is a conflict in Battery Channel in the right outside quarter where the charted controlling depth is 35.5 feet but the present survey found a 30 foot depth in Latitude 33°54'25.68"N, Longitude 78°01'09.50"W.

6. It is recommended that the three seaward *dolphins* in the group of four *dolphins* charted in the vicinity of Latitude 33°53'48"N, Longitude 78° 00'59.76"W be deleted as they were disproved by the present survey. It is further recommended by present survey data that the length of the *pier* in the same area be shortened from the charted 54.79 meters to 43.63 meters.

7. It is recommended that the *shoreline* in the vicinity of Latitude 33°54'58.21"N, Longitude 78°01'22.67"W be updated according to ENC US5NC12M and the latest RSD aerial imagery.

8. AWOIS Item 14054 is a *dangerous sunken wreck PA* symbol and notation charted in Latitude 33°54'16.0"N, Longitude 78°00'59.0"W. It is recommended that the dangerous sunken wreck symbol and PA notation be deleted and that a *14 foot dangerous sunken wreck* be charted in Latitude 33°54'15.77"N, Longitude 78°00'57.75"W.

9. AWOIS Item 14055 is a d*angerous sunken wreck* symbol charted in Latitude 33°54'40.8"N, Longitude 78°00'53.7"W. It is recommended that the dangerous sunken wreck symbol be deleted and that a *15 foot dangerous sunken wreck* be charted in Latitude 33°54'39.36"N, Longitude 78°00'54.35"W.

10. AWOIS Item 14056 is a *dangerous sunken wreck PD* symbol and notation charted in Latitude 33°54'45.0"N, Longitude 78°00'49.7"W. It is recommended that the dangerous sunken wreck PD symbol and notation be deleted and that a *19 foot dangerous sunken wreck* be charted in Latitude 33°54'45.4"N, Longitude 78°00'47.18"W.

11. AWOIS Item 14057 is a *dangerous sunken wreck PD* symbol and notation charted in Latitude 33°54'51.0"N, Longitude 78°00'38.0"W. It is recommended that the dangerous sunken wreck PD symbol and notation be deleted and that a *16 foot dangerous sunken wreck* be charted in Latitude 33°54'52.47"N, Longitude 78°00'37.20"W.

12. Two *obstructions* were submitted as Dangers to Navigation by the field unit. Both *obstructions* are shown on the latest edition of NOS Chart 11537. It is recommended that they be retained as charted. See Appendix I for details.

13. One *shoal depth* was submitted by AHB as a Danger to Navigation during the office review of the field's work. This *shoal depth* is shown on the latest edition of NOS Chart 11537. It is recommended that this *shoal depth* be retained as charted. See Appendix I for details.

D.2. ADDITIONAL RESULTS

D.2.1. Aids to Navigation

There are numerous aids to navigation within the limits of the present survey. The field reported that two lights at the entrance channel to Bald Head Island were erroneously charted and recommended their removal from the chart. However the lights are charted accurately as surveyed in F00548 so it is recommended that no charting action should be taken by this survey.

D.3. MISCELLANEOUS

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

D.4. ADEQUACY OF SURVEY

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

Version 1.0

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

AHB PRE-COMPILATION PROCESS

REGISTRY No.	H11762
PROJECT No.	**OPR-G309-NRT2-07**
FIELD UNIT	NRT 2
PRE-COMPILER	MARK OPDYKE
LARGEST SCALE CHART	11537, edition 37, 20061201
CHART SCALE	1: 40,000
SURVEY SCALE	1: 10,000
DATE OF SURVEY	25 September 2007 – 11 December 2007
CONTENT REVIEW DATE	

Components	File Names
Product Surface	NA
Shifted Surface	NA
Contour Layer	H11762_Contours
Survey Scale Soundings	H11762_SS_Soundings.hob
Chart Scale Soundings	H11762_CS_Soundings.hob
H11411 Retain Soundings	H11762_CS_Soundings_Retain_H11411
Feature Layer	H11762_AHB_Features.hob
Meta-Objects Layer	H11762_MetaObjects.hob
Blue Notes	H11762_Bluenotes.hob

SPECIFICATIONS:

I. COMBINED SURFACE:
   a. File name: ____NA
   b. Resolution: _____m
   c. Final Grid Location:_____

II. PRODUCT SURFACE (SOUNDINGS):
   a. Scale: 1:_____
   b. Radius:_____m
   c. Resolution: ___m

   d. Depth
      i. Minimum: _____m
      ii. Maximum: _____m

   PRODUCT SURFACE (CONTOURS):
   a. Scale: 1:_____
   b. Radius:_____m
   c. Resolution: ___m

III. SHIFTED SURFACE:
   Single Shift Value:_____ *[-0.229m (feet), (≤ 10 fathoms)]*
   [-1.372m (fathoms), (> 10 fathoms)]

IV. CONTOUR LAYER:
   a. Use a Depth List: XXXXXX_NOAA_depth_curves_list.txt
      Depth List:

b. Output Options:
   i. Create contour lines:
      1. Line Object: DEPCNT
      2. Value Attribute: VALDCO

V. SOUNDING SELECTION:

a. Selection Criteria:
   i. Radius
   ii. Shoal biased
   iii. Use Single-Defined Radius: ____ distance on ground (m)
   iv. Filter: Generalized !=1

VI. FEATURES:

a. Brought in from Survey
   Total No._____
b. Brought in from ENC
   ENC:___#_____
   Total No._____

VII. META-OBJECTS:

a. M_COVR attributes

Acronym	Value
SORDAT	20071211
CATCOV	Available
SORIND	US,US,survy,H11762

b. M_QUAL attributes

Acronym	Value
CATZOC	Not Assessed
INFORM	H11762,OPR-G309-NRT2-07
POSACC	10
SORDAT	20071211
SORIND	US,US,survy,H11762
SUREND	20071211
SURSTA	20070925
TECSOU	Echo-sounder, SSS

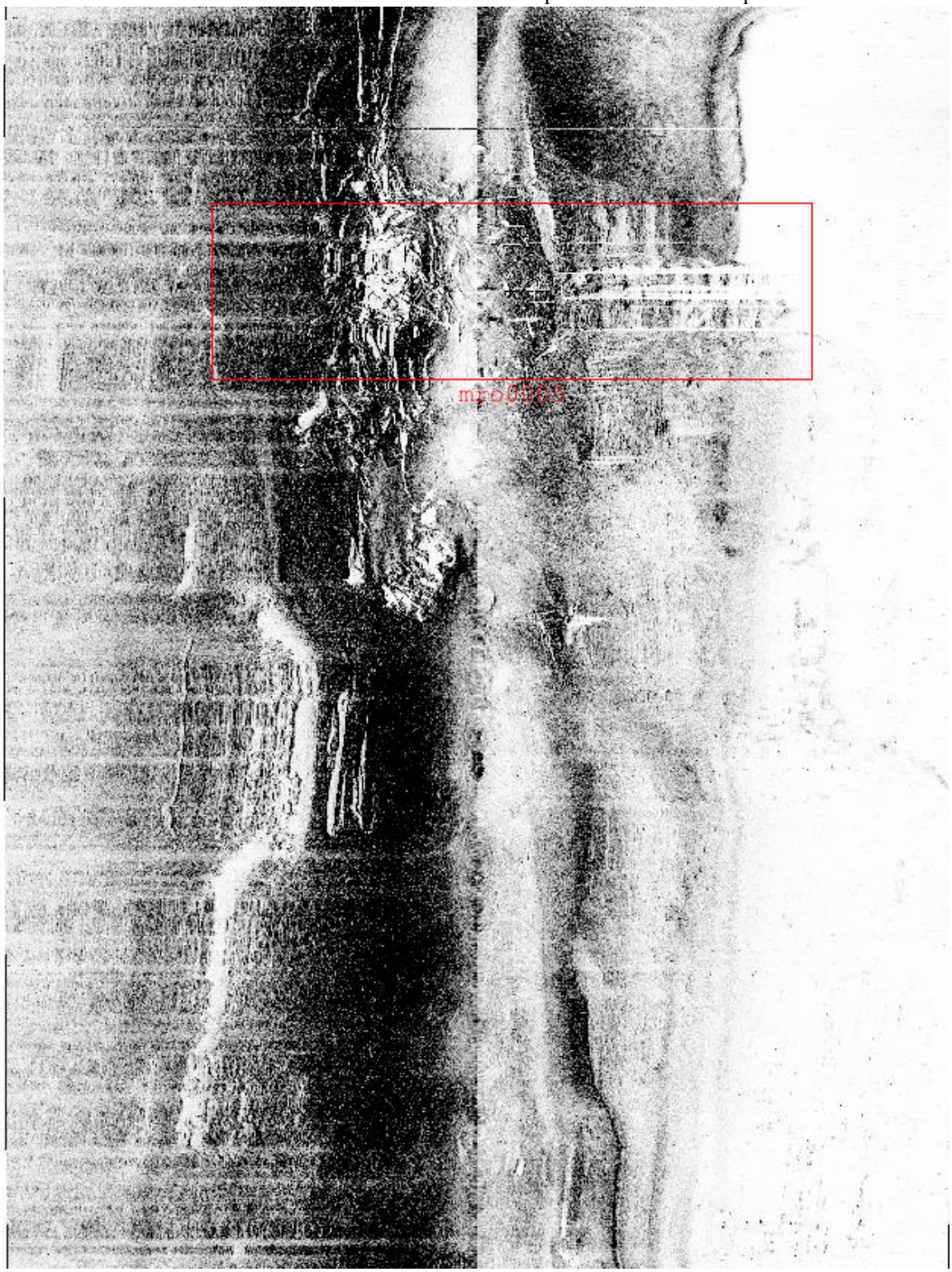
c. DEPARE attributes

Acronym	Value
DRVALV 1	3.812 ft
DRVALV2	65.213 ft
SORDAT	20071211
SORIND	US,US,nsurf,H11762

VIII. NOTES:

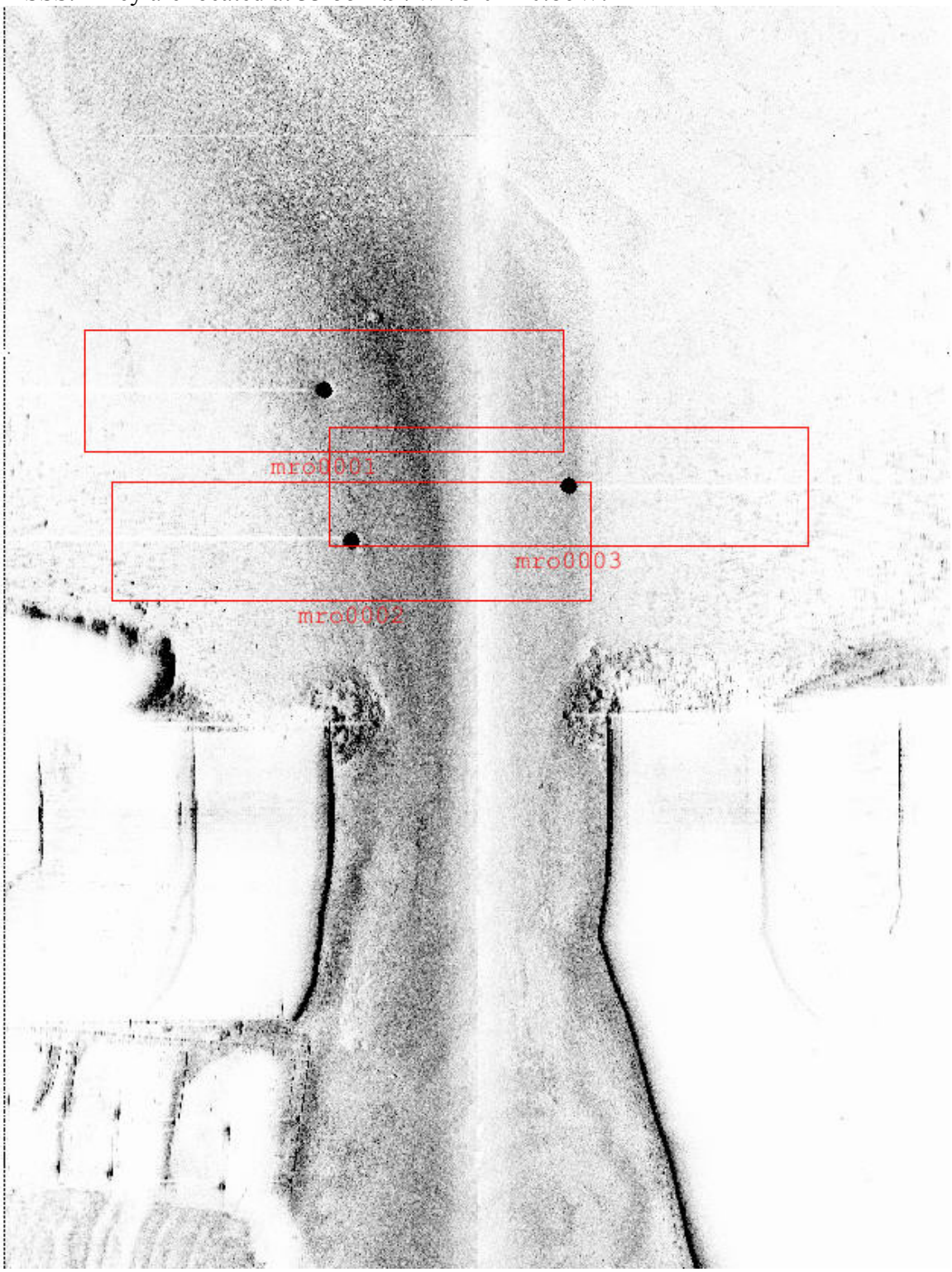
1) Disproved three of the four dolphins and edited the length of the pier at 33-53-48.18N 78-00-59.76W.


More...
Map
Satellite
Terrain
Show labels
100 ft
20 m
©2008 Google - Map data ©2008 Tele Atlas - Terms of Use
Side Scan Editor
Beam Pattern
43
42
21
56
Dols
Fort
Caswell

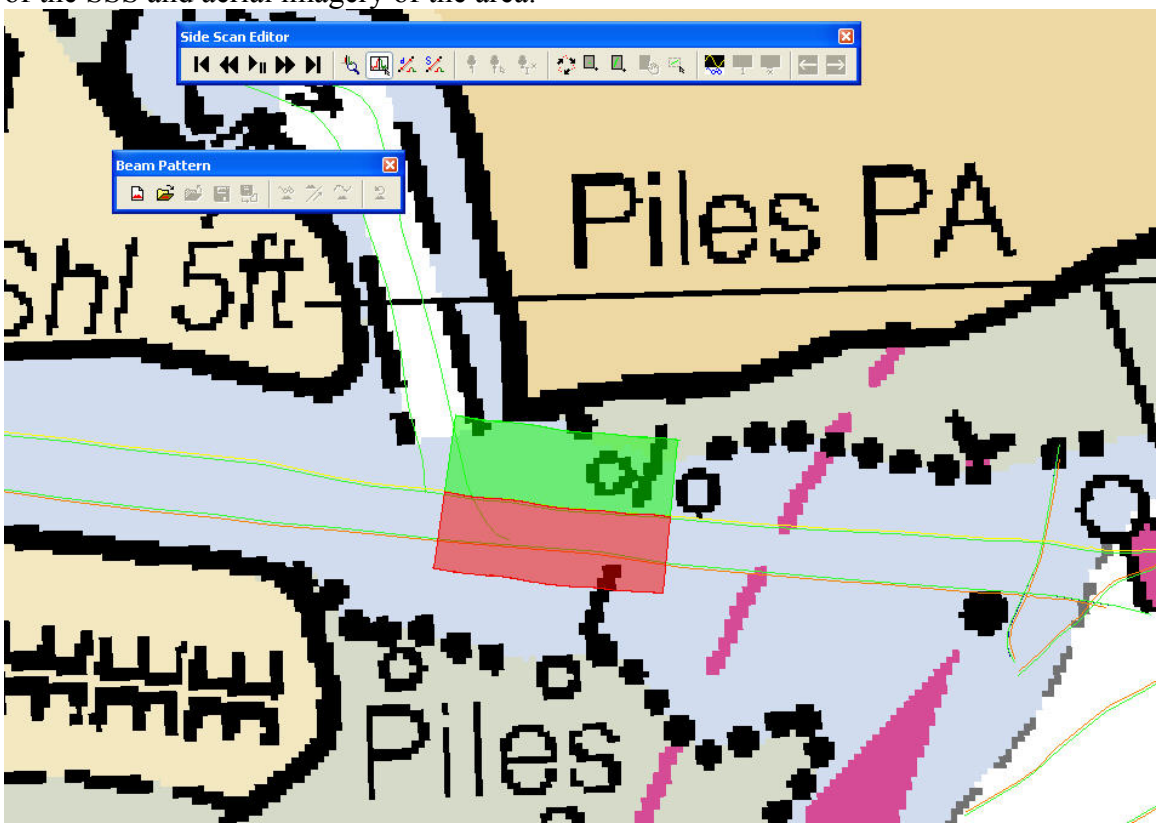


2) Tide gage (lighted) at 33-51-23.91N 78-01-55.77W retained as charted as there is no SSS coverage or GP to confirm or disprove the charted location.

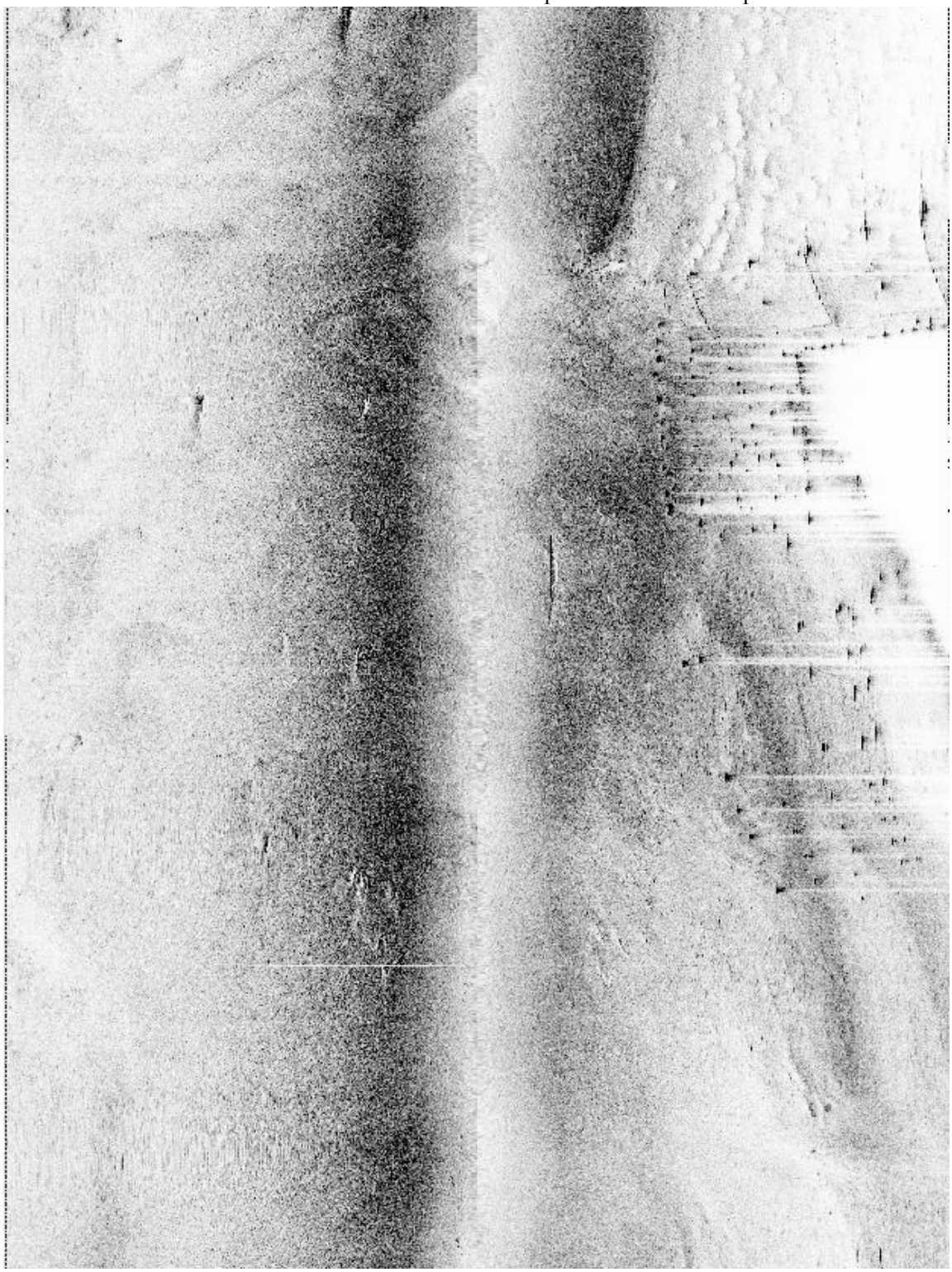
3) Added three piles and end of the pier to features in Pydro and the features layer found in SSS. They are located at 33-55-2.97W 78-02-10.86W.



4) Decided to use blue note to say "Update shoreline according to ENC US5NC12M and latest RSD aerial imagery." At 33-54-58.21N 78-01-22.67W. Following include images of the SSS and aerial imagery of the area.




More...
Map
Satellite
Terrain
Yacht Basin Dr
100
399
W Bay St
300
199
299
W Bay St
200 ft
50 m
©2008 Google - Imagery ©2008 DigitalGlobe, New Hanover County, NC, GeoEye, Map data ©2008 Tele Atlas - Terms of Use
NC Coastal Real Estate - www.CoastalCommunities.com - Five Coastal Communities with resort style amenities



5) Field wrote on P9 of the DR. "**Two lights at the entrance channel to Bald Head Island that are erroneously charted.**

Fl Green # 1 PA, private at 33° 52’ 41.37”N, 078° 00’ 07.09” W, Remove from chart.

Fl Red # 2 PA, private at 33° 52’ 34.35”N, 078° 00’ 10.11” W, Remove from chart.
These private lights do exist and were positioned as part of the ATON request for F00548 with the Trimble DGPS Backpack for the Field Examination survey. These lights reside on the entrance jetties.

Charted positions should be superseded by new survey positions. “

However, I believe the lights are charted accurately according to the PYDRO from F00548 and no action is needed from us on this current chart. As such I left it alone and do not have anything in PYDRO or HOB files pertaining to the lights. Do not agree that I should delete them from the chart.

APPROVAL SHEET
H11762

Initial Approvals:

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

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

Mark Opdyke
Digitally signed by Mark Opdyke
DN: cn=Mark Opdyke, o, ou, email=mark.opdyke@noaa.gov, c=US
Date: 2008.11.25 15:01:09 -05'00'

Mark Opdyke
Hydrographic Intern
Atlantic Hydrographic Branch

Deborah A. Bland
Digitally signed by Deborah A. Bland
DN: cn=Deborah A. Bland, o=Atlantic Hydrographic Branch, ou=NOAA/NOS, email=Deborah.A.Bland@NOAA.gov, c=US
Date: 2008.11.25 14:48:53 -05'00'

Deborah A. Bland
Cartographer
Atlantic Hydrographic Branch

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

Approved: 
Digitally signed by Shepard Smith
DN: cn=Shepard Smith, o=NOAA, ou=AHB, email=shep.smith@noaa.gov, c=US
Date: 2008.11.25 15:41:34 -05'00'

Shepard Smith
Commander, NOAA
Chief, Atlantic Hydrographic Branch


Christopher Hare
AWOIS/SURF Check
2008.12.04 16:43:03
-05'00'