H11623

NOAA FORM 76-35A

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

DESCRIPTIVE REPORT

Type of Survey **Hydrographic**

Field No. **David Evans and Associates, Inc.**

Registry No. **H11623**

LOCALITY

State **ALABAMA**

General Locality **Mobile Bay**

Sublocality **Fowl River Point to Pass aux Herons**

2007

CHIEF OF PARTY

Jonathan L. Dasler, David Evans and Associates, Inc.

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DATE

NOAA FORM 77-28
(11-72)

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

REGISTRY No

HYDROGRAPHIC TITLE SHEET

H11623

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 No

David Evans and Associates, Inc.

State **Alabama**

General Locality **Mobile Bay**

Sub-Locality **Fowl River Point to Pass aux Herons**

Scale **1:10,000** Date of Survey **February 2, 2007 to April 28, 2007**

Instructions dated **October 18, 2006** Project No. **S-J977-KR-DEA**

Vessel ***R/V Taku; ASV***

Chief of party **Jonathan L. Dasler, PE (OR) , PLS (OR,CA)**

Surveyed by **Jonathan Dasler, Jason Creech, John Staly, Shyla Allen, Benjamin Hocker**

Soundings by echo sounder, hand lead, pole **RESON 8101, Odom MkIII and CV-100, EdgeTech 4200-FS and 4200 HFL**

Graphic record scaled by **N/A**

Graphic record checked by **N/A** Automated Plot **N/A**

Verification by ***Atlantic Hydrographic Branch***

Soundings in ~~**Meters**~~ **Feet at MLLW.**

REMARKS: **All times are UTC.**

The purpose of this contract is to detect and map marine debris for the Gulf of Mexico Marine Debris Project and to provide NOAA with modern, accurate hydrographic survey data with which to update the nautical charts of the assigned area.

SUBCONSULTANTS: **ZEPHYR MARINE, P.O. Box 1575, Petersberg, AK 99833**

Red, bold italic notes in Descriptive Report were made during Branch processing.

NOAA FORM 77-28 SUPERSEDES FORM C&GS-537

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****Filed digitally at AHB.***

Acronyms and Abbreviations

AHB	Atlantic Hydrographic Branch
AWOIS	Automated Wreck and Obstruction Information System
CF	Charted Feature
CUBE	Combined Uncertainty and Bathymetry Estimator
DAPR	Data Acquisition and Processing Report
DEA	David Evans and Associates, Inc.
DtoN	Danger to Navigation Report
DGPS	Differential Global Positioning System
HIPS	Hydrographic Information Processing System
HSD	***Hydrographic Surveys Division***
IHO	International Hydrographic Organization
LNM	U.S. Coast Guard Local Notice to Mariners
NAD83	North American Datum of 1983
NOAA	National Oceanic and Atmospheric Administration
NOS	National Ocean Service
NWLON	National Water Level Observation Network
R/V	Research Vessel
ZDF	Zone Definition File

Descriptive Report to Accompany Hydrographic Survey H11623

Project S-J977-KR-DEA
Mobile Bay, Alabama
Fowl River Point to Pass aux Herons
Scale 1:10,000
February - April 2007
David Evans and Associates, Inc.
Lead Hydrographers: Jonathan L. Dasler, Jason C. Creech

A. AREA SURVEYED

David Evans and Associates, Inc. (DEA) conducted hydrographic survey operations in Mobile Bay, Alabama. The survey area (Figure 1) is west of the safety fairway from Fowl River to Pass aux Herons.

The purpose of this survey was to provide accurate hydrographic data suitable for item detection and debris mapping in the project area. H11623 was conducted in accordance with the Statement of Work ***(SOW)**** for S-J977-KR-DEA; dated October 18, 2006. 7

Project instructions ***(SOW)*** required 100 % side scan sonar coverage of the survey area with single beam data acquired in conjunction with side scan operations. The survey was conducted over a set line spacing of 80 m using a 50-meter range to achieve side scan coverage. Twenty-seven (27) bottom samples were also acquired for this survey. No Automated Wreck and Obstruction Information System (AWOIS) item investigations were assigned for this project, however the database was downloaded and the 13 AWOIS items within the survey limits of H11623 were developed along with all other charted features (CF).

Data acquisition was conducted from February 2, 2007 (Day Number 33) to April 28, 2007 (Day Number 118). Table 1 presents detailed list of acquisition dates.

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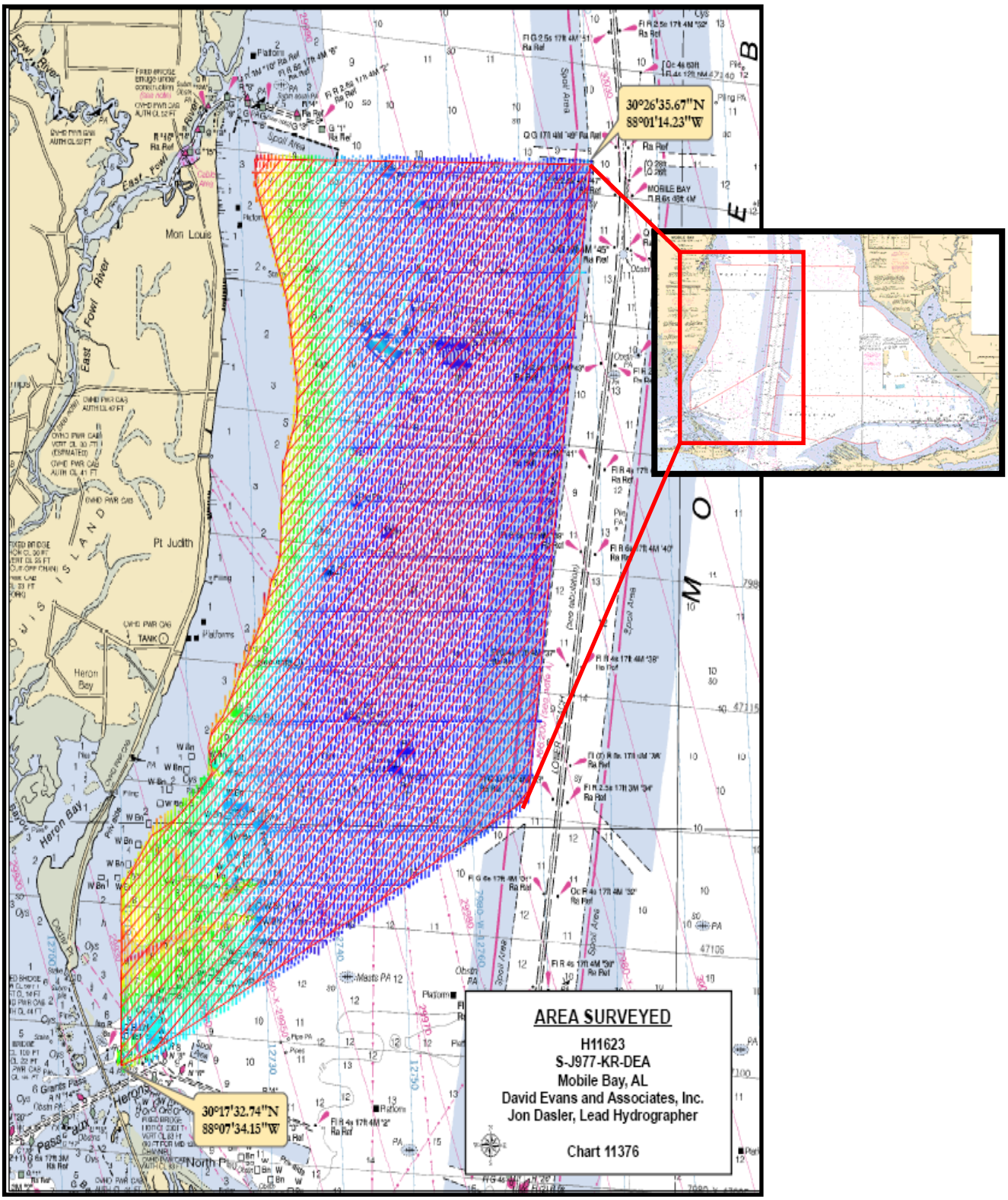

Figure 1. H11623 Survey Area

Table 1. Dates of Acquisition

Dates of Acquisition	
Month	**Dates**
February 2007	2
March 2007	6-13, 18-21, 23, 25, 28-29
April 2007	12, 17-19, 24-25, 27-28

The statistics for H11623 are provided in Table 2, as described in the Hydrographic Survey Technical Directive 2006-1.*

Table 2. H11623 Survey Statistics

Survey Statistics	*Research Vessel (R/V) TAKU*	*ASV*	Total
VBES (mainscheme nm)	-	-	-
MBES (mainscheme nm)	-	-	-
LIDAR (mainscheme nm)	-	-	-
SSS (mainscheme nm)	-	-	-
Combination lines (SSS and VBES nm)	708.98	20.1	729.08
Crosslines (VBES nm)	57.5	-	57.5
Lidar Crosslines (nm)	-	-	-
Developments (MBES nm)	27.1	-	27.1
Shoreline (nm)	-	-	-
Number of Bottom Samples	27	-	27
Number of Item Investigations that required additional survey effort (DPs)	24	-	24
Total number of square nautical miles	-	-	29.12

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B. DATA ACQUISITION AND PROCESSING

B1. Equipment

Equipment and vessels used for data acquisition and survey operations during this survey are listed below in Tables 3 and 4.

Table 3. R/V TAKU Equipment and Vessel Specifications

R/V TAKU	
Builder	Armstrong Marine
Design	Catamaran
Length Overall	28’
Beam	10.5’
Draft, Maximum	2’
Cruising Speed	27 knots
Max Survey Speed	8.5 knots
Echosounders	Odom Echotrac MKIII and RESON 8101
Side Scan Sonar	Edgetech 4200-FS
Sound Velocity Equipment	Applied Microsystems Smart SV&P
Positioning & Attitude	Applanix POS/MV 320 v4

Table 4. Autonomous Surface Vehicle Equipment and Vessel Specifications

Autonomous Surface Vehicle (ASV)	
Builder	SeaRobotics
Design	USV-5000 ASV
Length Overall	16’
Beam	1’
Draft, Maximum	0.5’
Cruising Speed	7 knots
Max Survey Speed	5.5 knots
Echosounders	Odom Echotrac CV-100
Side Scan Sonar	Edgetech 4200-FSL
Sound Velocity Equipment	Applied Microsystems-Smart SV&P
Attitude	TSS DMS05

No vessel or equipment configurations used during data acquisition deviated from those described in the Data Acquisition and Processing Report (DAPR)*, submitted under a separate cover.

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B2. Quality Control

B2.a Crosslines

A total of 57 nautical miles of vertical beam echosounder crosslines were acquired, comprising eight percent of the mainscheme hydrography. Crosslines were run in an east-west direction perpendicular to mainscheme lines across the entire survey. ***Concur.***

The mainscheme bathymetry was manually compared to crosslines in CARIS subset mode and agreed well with differences within tolerance for an International Hydrographic Organization (IHO) Order 1 Survey. A statistical Quality Control Report was also generated in CARIS HIPS by comparing all the crosslines to a 2-meter uncertainty weighted surface. Beam number was selected for output results. Since a single beam echosounder was used for both mainscheme and crossline bathymetry, all beam numbers are reported as one (1). ***Concur.***

Whereas multibeam coverage was limited to contact investigations, crossline analysis for multibeam was run project wide over a large fish haven on survey H11623. The Quality Control Reports for both single beam and multibeam are included in Separate IV. The results of the analysis exceeded the requirements set in the NOS *Hydrographic Surveys Specifications and Deliverables* (June 2006).***** ***Concur.***

B2.b Uncertainty

The calculated uncertainty values of all nodes of the finalized two-meter uncertainty surface range from 0.222 m to 0.303 m. During HIPS processing, the "greater of the two" option was selected, where the calculated uncertainty from total propagated error is compared to the standard deviation of the soundings influencing the node, and the greater value is assigned as the final uncertainty of the node. As a result, the uncertainty of the finalized surface and associated Bathymetric Attributed Grids increased for nodes where the standard deviation of the node was greater than the calculated uncertainty. There are no areas within the survey where the finalize uncertainty surface exceeded 0.5 m, the minimum allowable error value for S-44 IHO Order 1 surveys. ***Concur.***

B2.c Junctions

H11623 did not junction with any contemporary surveys. ***Concur.***

B2.d Sonar System Quality Control Checks

Quality control checks were performed on periodic basis as required by the NOS *Hydrographic Surveys Specifications and Deliverables* (June 2006)*****. Methodology can be found in the DAPR*****, submitted under a separate cover. The results from the positioning system checks and leadline-to-sonar comparison are included in the Separate I *Log********s* of this report. Sound speed profiler weekly evaluation tables are included in the Separate II *Sound Speed Data******* of this report.

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

Single beam data were evaluated in HYPACK by reviewing the digital echogram against the bathymetric data. Data were also converted into CARIS and reviewed in the Single Beam Line Editor and by analysis of anomalies revealed in the uncertainty surface and contours.

Side scan data were evaluated multiple times for contacts, with reviews occurring during data acquisition, contact verification and bottom tracking, and again during mosaic generation. Side scan contacts were compared to multibeam developments in CARIS.

Multibeam data were processed and reviewed in CARIS HIPS. Multibeam data were reviewed in CARIS Subset mode with single beam mainscheme data to check for consistency and draped over side scan mosaics to review for contacts and least depths determination.

B2.e Unusual Conditions or Data Degradation

The quality of the side scan sonar imagery was impacted in some areas by extremely variable sound speeds. Due to the geomorphology of Mobile Bay it was not unusual for sounds speeds to vary 25 m per second or more during the course of a single 12-kilometer line. Multiple fresh-water drainages into the area coupled with high temperatures and poor mixing necessitated frequent sound speed casts throughout each survey day to aid in survey planning. In areas where salinity changes obscured side scan imagery detection, lines where re-run when conditions were more favorable.

B2.f Additional Factors Affecting Corrections to Soundings

The *S-J977-KR-DEA Tides and Water Levels (August 2, 2006)* requirements in the *Statement of Work**** specified Dauphin Island Hydro, AL (873-5181) gauge as the primary tide gauge for this project. During review of water level data from this gauge, David Evans and Associates, Inc. (DEA) staff found a datum shift that impacted data quality and the usability of water levels from the gauge. The Center for Operational Oceanographic Products and Services (CO-OPS) and Hydrographic Surveys Division (HSD) were made aware of the issue and CO-OPS determined that data from 873-5181 were not suitable for the project and transferred project control to the National Water Level Observation Network (NWLON) station, Dauphin Island, AL (873-5180)[1].

The National Water Level Observation Network (NWLON) tide gauge at Dauphin Island (873-5180) had numerous data outages while DEA was surveying in Mobile Bay. The problematic data were reportedly the result of the primary Aquatrak water level sensor being mismatched with its calibrated sounding tube[2]. The National Oceanic and Atmospheric Administration (NOAA) corrected the problem, re-ran levels at the Dauphin Island gauge and the Center for Operational Oceanographic Products and Services filled the data gaps of the NWLON station with the back-up hydro gauge 873-5181, which is also located on Dauphin Island. Per NOAA's request[3], data were processed with final verified water levels from Dauphin Island gauge 873-

[1] See Appendix V - Supplemental Records and Correspondence **** Filed with original field records.***
[2] See Appendix V - Supplemental Records and Correspondence
[3] See Appendix V - Supplemental Records and Correspondence

5180. This is a deviation from the Tide Reducer Station listed in Section 1.3 of the Statement of Work.

B2.g Object Detection and Coverage Requirements

Survey speeds were maintained at less than 9 knots so that object detection requirements were exceeded throughout the survey. ***Concur.***

Demonstration of 100% side scan sonar coverage was achieved by producing 50-centimeter resolution mosaics. All survey holidays were filled prior to survey operations ending. ***Concur.***

The Field Sheet *H11623* was used for the geographic extents of single beam data. A two-meter uncertainty weighted surface was generated to demonstrate single beam coverage. Multibeam was acquired only for least depths determination on significant contacts. To accurately portray significant features, three high resolution (50 cm) Combined Uncertainty and Bathymetry Estimator (CUBE) surface were created. ***Concur.***

B3. Corrections to Echo Soundings

Data reduction procedures for survey H11623 are detailed in the DAPR. The survey area for H11623 contained numerous baring piles that delineated an area restricted to commercial shrimp harvest. These piles were removed from the bathymetric sounding set after they were positioned. This was done to ensure that the generated surface portrayed the true sea floor. The piles marking a fish haven were retained as they delineated numerous submerged features. ***Concur.***

No additional calibration tests were required for this survey.

B4. Data Processing (Data Representation)

B4.a Single Beam

Due to the sparse nature of single beam data the CUBE algorithm for surface modeling, which was designed for high resolution multibeam data, is not appropriate. Upon discussion between DEA and NOAA's Atlantic Hydrographic Branch (AHB)[4], it was agreed that a single, two-meter "uncertainty" weighted surface would be delivered with the complete single beam data set. ***Concur.***

B4.b Multibeam

Final CUBE surface resolutions and depth ranges were set in accordance with the NOS *Hydrographic Surveys Specifications and Deliverables* (June 2006). To accurately portray significant features, three high resolution (50 cm) CUBE surfaces were created using three Fields

[4] Phone conversation: Jason Creech and Gene Castle ***Parker*** November, 2007.

Sheets (*H11623_MBES_1of3*, etc.). When combine***d,*** the three Fields Sheets encompasses the entire area of acquired multibeam bathymetry.

C. VERTICAL AND HORIZONTAL CONTROL ***See also the Evaluation Report.***

A complete description of horizontal and vertical control for survey H11623 can be found in the Horizontal and Vertical Control Report, submitted under separate cover. A summary of horizontal and vertical control for this survey follows.

C1. Vertical Control

The vertical datum for this project is Mean Lower Low Water. The operating NWLON station at Daułphin Island, Alabama (863-5180) served as control for datum determination. Data were reduced in CARIS HIPS using the zone definition file (ZDF) J977KR2007DEA. ***Concur.***

C2. Discussion of Tide Zoning

Evaluation of tides was accomplished through comparison of zoned water levels form the primary station to the secondary station, crossline comparisons, and by visually comparing adjacent lines during CARIS subset editing.

No changes were made to the preliminary zoning file.

C3. Horizontal Control

The horizontal datum for this project is the North American Datum of 1983 (NAD83). Position data consist of both geographic coordinates and projected coordinates. Projected coordinates are in meters using the Universal Transverse Mercator Zone 16 projection. Differential Global Positioning System (DGPS) was the sole method of positioning, with differential corrections received from the U.S. Coast Guard beacon at Mobile Point, Alabama (broadcast site ID 813 at 300 kilo Hertz). ***Concur.***

No DGPS outages were experienced during the survey.

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

D1. Chart Comparison

D1.a Survey Agreement with Chart

During the course of data acquisition and processing H11623 was compared to the largest scale raster charts. The results of these comparisons are described below, as well as in Sections D.2b through D.2f.

A sounding plot for H11623 was created from the finalized, two-meter uncertainty surface in CARIS Field Sheet Editor. Contours were generated using a 30 m “uncertainty” weighted surface exported from CARIS. Contours and soundings were created solely for comparison purposes and are not submitted as a final deliverable.

H11623 contours and soundings were compared in CARIS HIPS to the depths and contours on the charts listed in Table 5.

Table 5. Charts compared to H11623

Chart	Scale	Edition	Edition Date	Issue Date	Latest NtM	Cleared Through Date	ENC Cell Name	ENC Issue Date
11377	1:40,000	7	10/1/2007	10/1/2007	0	10/1/2007	US5AL13M	9/26/2007
11378_6	1:40,000	34	2/1/2006	10/13/2007	129	10/13/2007	US5AL12M	10/18/2007

H11623 depths were compared to the charted soundings on Charts 11377 and 11378 as well as the corresponding electronic navigation. The results of the chart comparison were identical with the exception of one charted feature which is addressed specifically. The discussion of the comparison will be limited to Chart 11377 since it is the largest scale chart that encompasses the entire survey area.

Depths from survey H11623 are generally 1 ft to 2 ft (0.3 m to 0.6 m) deeper than Chart 11377. The hydrographer thoroughly examined the results of the weekly lead line to sonar comparisons in order to determine if the difference between the charted depth and the current survey may have been a result of the an unaccounted offset. No systematic offset was observed between the lead line and sonar. The single beam data was also examined against the multibeam data with difference averaging less than 0.03 m. Raw NOAA XYZ data from 1985 (D00065 & D00078) was also downloaded as a third source of comparison. In general the datasets from 1985 and the current survey agreed well. Based on the distribution of the differences the hydrographer believes that the differences between the datasets may be the result of natural changes to the seafloor or use of data other than the 1985 data on Chart 11377 and not the result of a systematic error in this survey. Despite the depth difference, contours produced from the survey data match the shape of the charted contours. ***Concur.***

The latest electronic and raster versions of Chart 11377 were reviewed to ensure that all U.S. Coast Guard Local Notices to Mariners (LNMs) issued during survey acquisition on H11623 were applied and addressed by this survey.

D1.b Comparison to Significant Shoals

The following significant charted depths were not found by H11623:

The six-foot shoal at 30-18-59.02N, 088-06-09.24W was disproved with 100% side scan sonar. There is no indication of shoaling in the side scan imagery. The single beam determined least depth over the charted shoal is 8 feet (2.4 m). ***Concur.***

Coincidently, the present survey located a side scan contact approximately 200m NNE of the charted shoal (Figures 2 and 3). The contact was submitted to the Atlantic Hydrographic Branch on April 12, 2007 as Danger to Navigation (DtoN) #7 and has been applied to the chart. The submitted least depth was preliminary and based on side scan shadow length. Subsequent multibeam bathymetry was acquired and new least depths obtained. The hydrographer recommends removing the "reported" annotation and charting the obstruction depth of six feet (1.9 m). ***Concur with clarification. Current chart status exists as an Obstn (6-ft rep). Recommend to chart as a 6-ft (1.914m) Obstruction located in Latitude 30°19'05.62"N, Longitude 088°06'6.70"W, and delete (6 ft rep).***

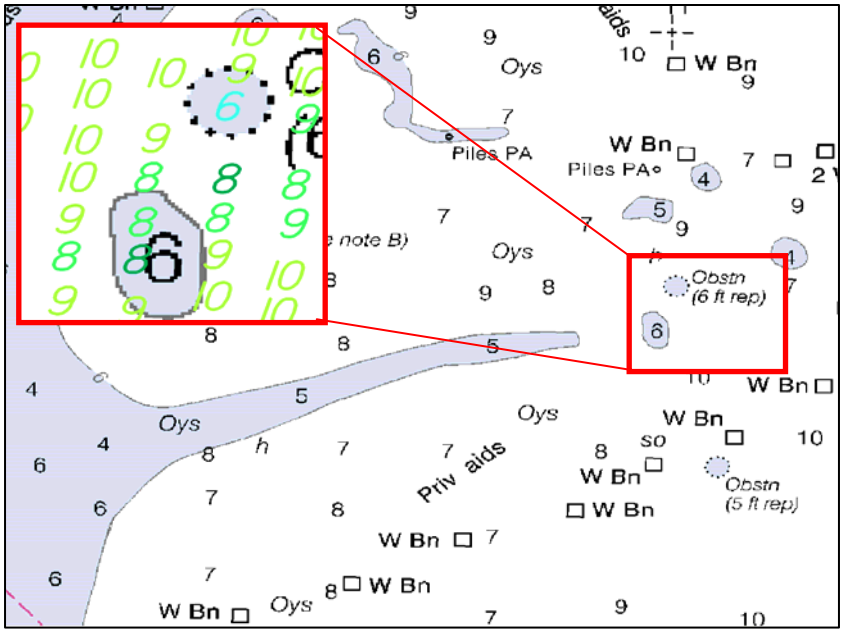


Figure 2. DtoN #7 least depth

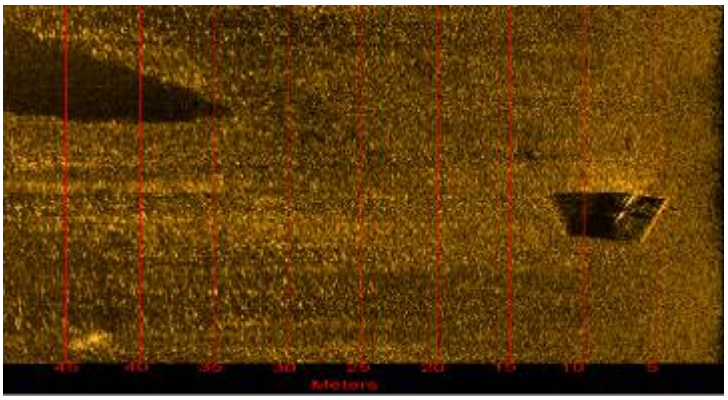


Figure 3. Side scan image of DtoN #7

The charted four-foot shoal at 30-19-10.22N, 88-05-50.75W was disproved with 100% side scan sonar. No indication of a feature or shoaling is present in the side scan imagery at the charted position. The single beam least depth over the charted shoal is 10 feet (3.3 m). ***Concur.***

Approximately 90 m to the SE (Figure 4), the current survey located a side scan contact (Figure 5) with a multibeam least depth of six feet (1.9 m). ***Concur with clarification. Chart 6-ft (1.883m) Obstruction located Latitude 30°19'08.49"N, Longitude 088°05'47.62"W. The feature appears to be a submerged pile.***

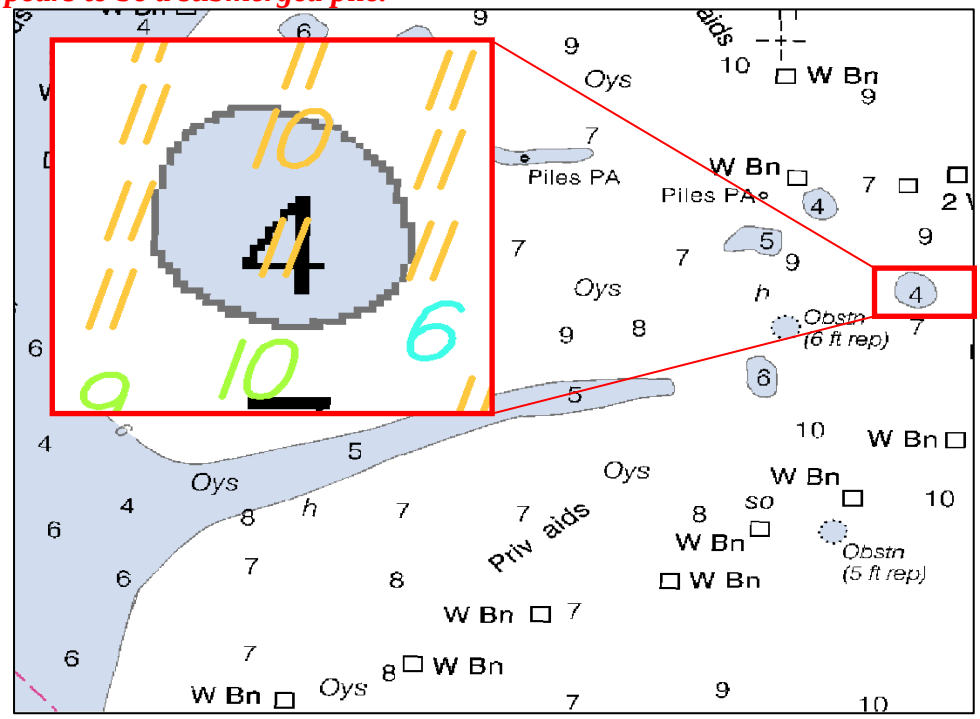


Figure 4. 6-Foot least depth

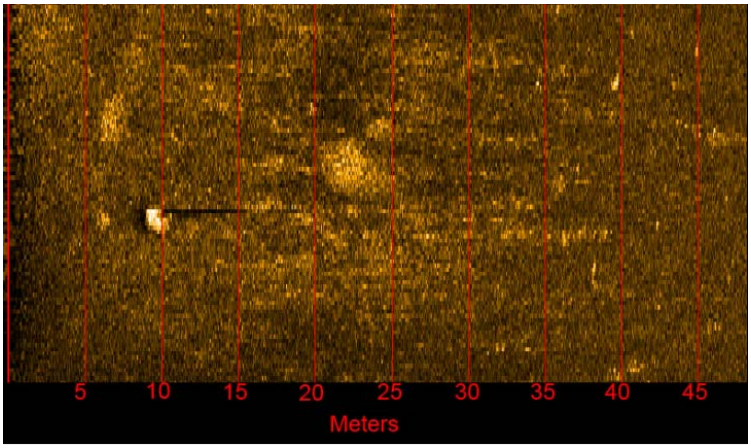


Figure 5. Side scan image of 6-foot least depth

D1.c Comparison to Charted Features

A unique item investigation number was assigned by DEA personnel to each of the 40 charted features located in the H11623 survey area. This aided in tracking features during data acquisition and processing. The item investigation numbers also simplifies reporting and has been included in this report for that reason. A copy of the tracking sheet and Drawing Exchange Format (DXF) files are included in the *Supporting Data* folder of the digital data files accompanying this report.

The following charted features (Figure 6) have been disproved by H11623:

- The charted Obstruction Fish Haven (DEA charted feature item # CF35) at 30-24-41.04N, 088-03-04.93W, was disproved with 200% side scan sonar. The second 100% coverage was conducted over a set line spacing of 40 m at 25-meter range scale. The side scan sonar, single beam and visual search was conducted over a radius of 670 m. A new fish haven was positioned approximately 950 m to the west and submitted to AHB as DtoN #2 on April 10, 2007. ***Concur. Recommend to delete charted Obstruction Fish Haven (auth min 8 ft).***

- The charted Obstruction Fish Haven (DEA charted feature item # CF42) at 30-20-36.21N, 088-03-53.97W was disproved with 200% side scan sonar. The second 100% coverage was conducted over a set line spacing of 40 m at 25-meter range scale. The side scan sonar, single beam, and visual search was conducted over a radius of 280 m. The minimum depth in the area is 12 feet. ***Concur. Recommend to delete charted Obstruction Fish Haven (auth min 7 ft).***

- The charted Obstruction Tank (DEA charted feature item # CF48) is also an AWOIS item and is discussed in Section D1.e of this report. ***Refer to AWOIS Item 3514, Section D1.e, page 18.***

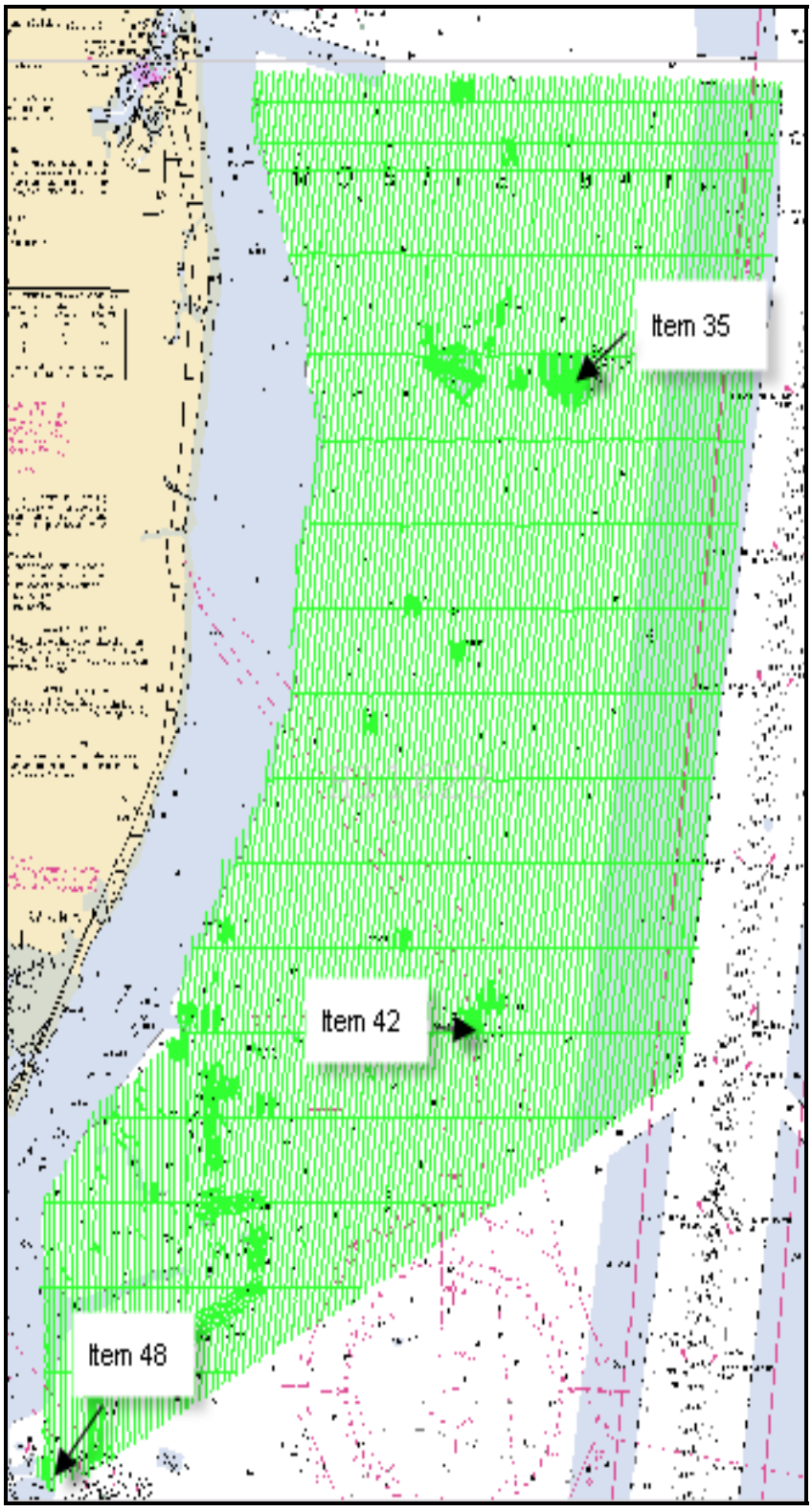


Figure 6. Charted Features Comparison

D1.d Comparison of Soundings in Designated Anchorages and Along Channels

H11623 includes one anchorage ground, designated as 110.194a, near Cedar Point. Generally, depths increase in the anchorage to the east and range from 10 feet to 12 feet. Two new obstructions were located by this survey in the anchorage area and were submitted as DtoNs # 4 and # 5, respectively, to AHB on April 10, 2007. The submitted least depths were preliminary and based on side scan shadow length. Subsequent multibeam bathymetry was acquired and new least depths obtained (Figures 7 and 8). The hydrographer recommends removing the "reported" annotation and charting both with the least depth of 9 feet at the S-57 attributed position. ***Concur with clarification. DToN # 4 was originally submitted as 8-ft (2.62m) OBSTRN, located in 30°20'23.17"N, 088°05'45.20"W. Final depth value is 8.83-ft (2.694m). Delete charted Obstruction (8 ft rep). Chart 9-ft (2.694m) Obstruction in Latitude 30°20'23.17"N, Longitude 088°05'45.20"W.***

DToN#5 was originally submitted as an 8-ft (2.62m) OBSTRN located in Latitude 30°20'28.17"N, Longitude 088°05'25.67"W. Final depth value is 9.58-ft (2.919m). Delete charted Obstruction (8 ft rep). Chart 9-ft Obstruction in Latitude 30°20'28.10"N, Longitude 088°05'25.77"W.

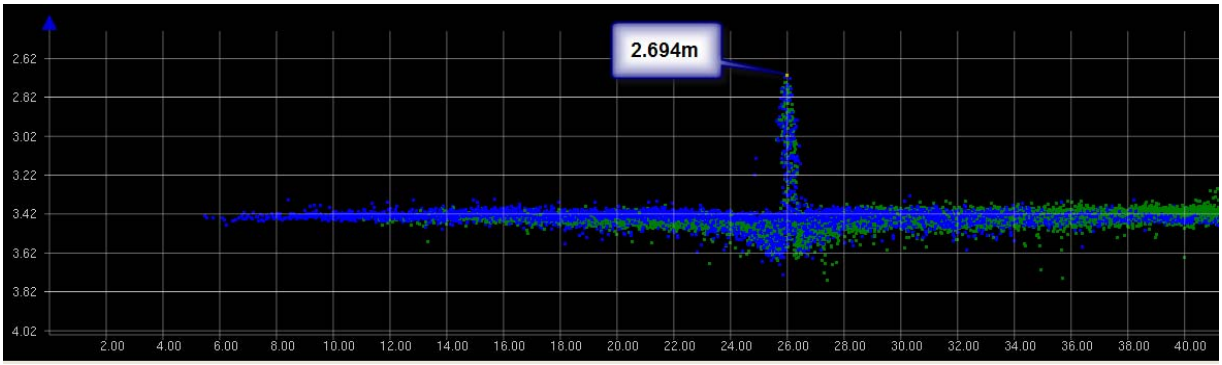


Figure 7. Submitted DtoN #4; ***final*** least depth 8.8 feet (2.694 m)

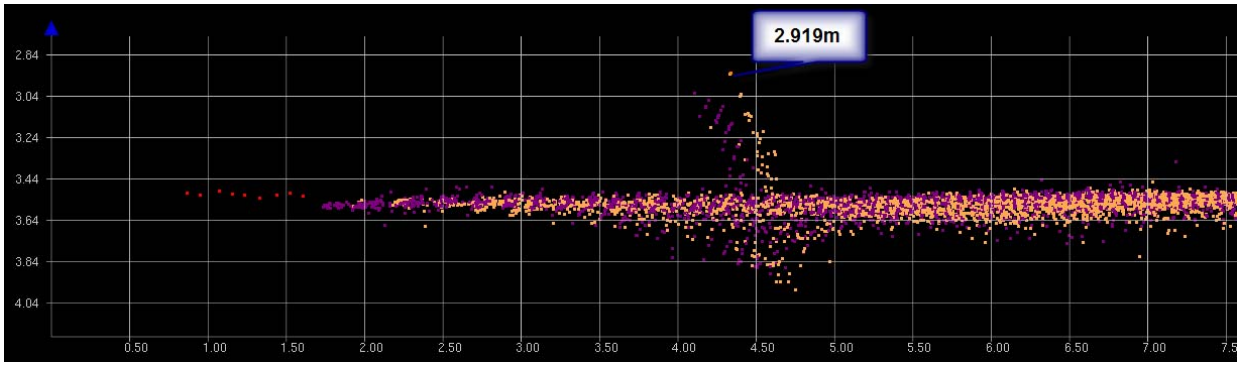


Figure 8. Submitted DtoN #5; ***final*** least depth 9.5 feet (2.919 m)

The eastern extent of H11623 is bounded by a spoil area immediately to the west of Mobile Bay Safety Fairway 116.200 (Figure 9). Depths along the channel line are generally 12 feet (shown in the figure below in red) with the exception of two areas that shoal to 10 feet to 11 feet (shown as yellow). ***Concur.***

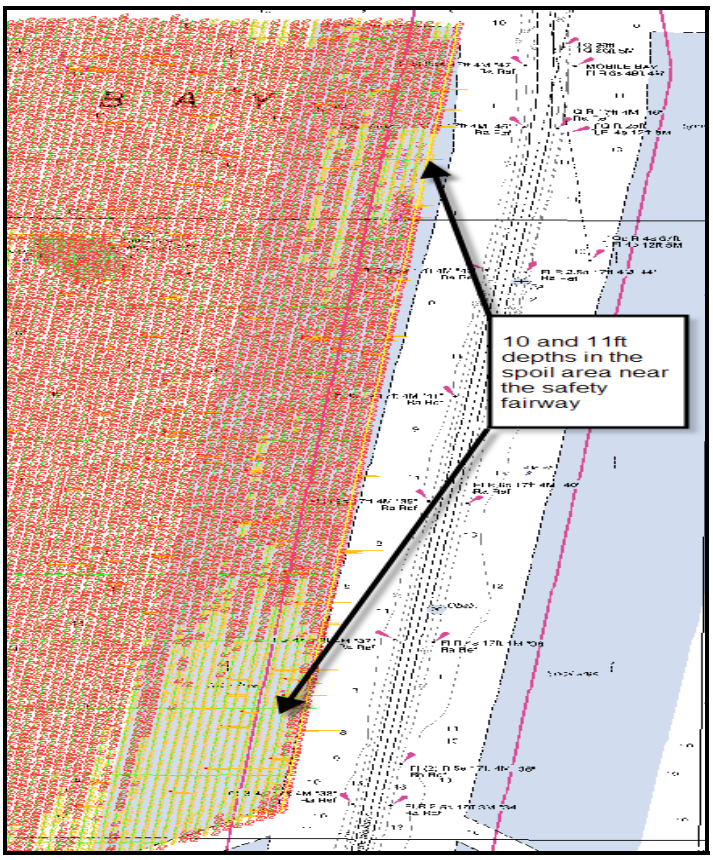


Figure 9. Depths near safety fairway shoal areas displayed in yellow

D1.e Automated Wreck and Obstruction Information System (AWOIS) Investigations

Thirteen (13) AWOIS items fall within the survey limits of H11623. No AWOIS item were tasked to S-J977-KR-DEA; however all were addressed as part of the required charted feature investigations. All AWOIS items were fully investigated and twelve were subsequently disproved using 200% side scan sonar. The second 100% side scan coverage was obtained using 40-meter line spacing at 25-meter range scale. The search radius for each feature was at least 100 m around the charted position. The hydrographer recommends removing the disproved charted features (Figure 10).

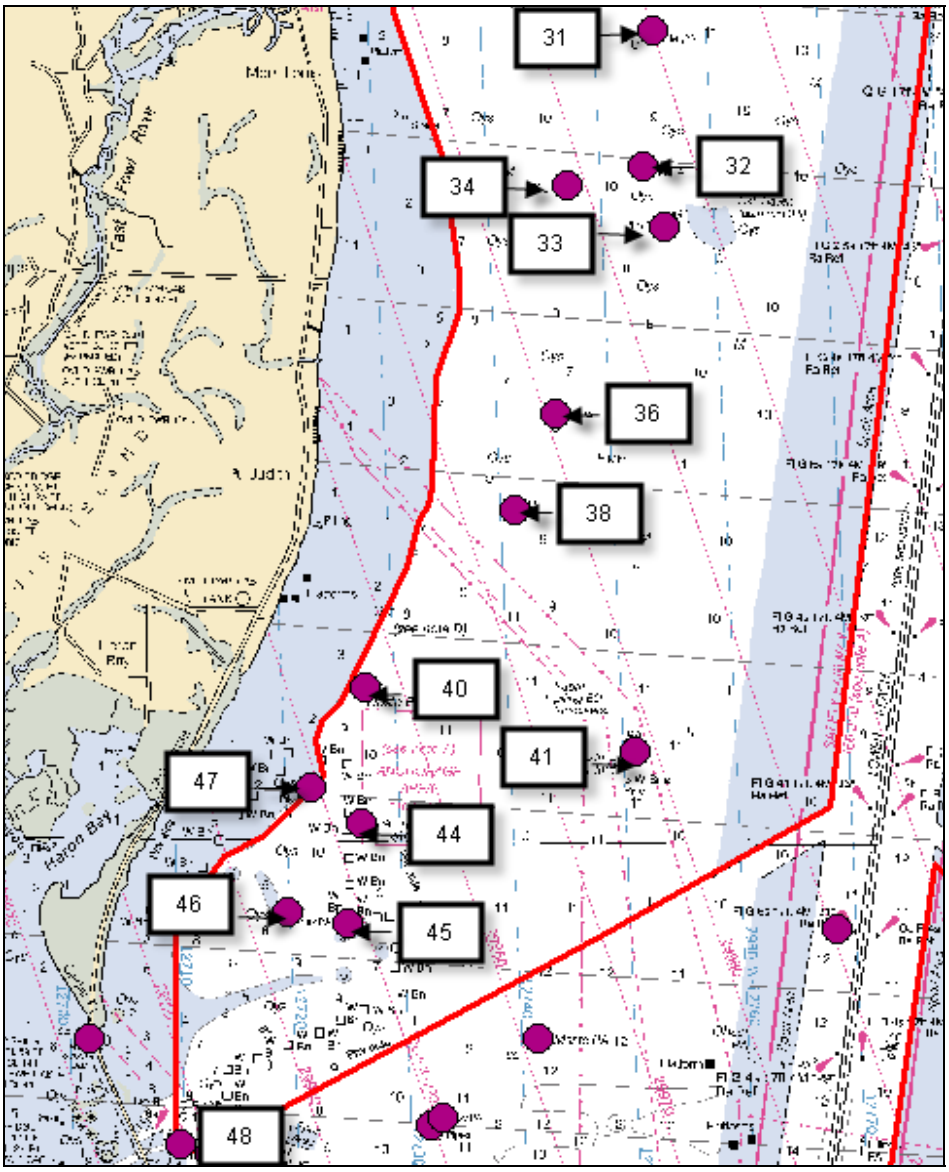


Figure 10. AWOIS Items on H11623

All AWOIS items are referred to first by the AWOIS item investigation number and then the DEA assigned charted feature item investigation number. All positions listed below are the charted position.

- The PA Pile (AWOIS Item 3559) at 30-26-11.83N, 088-03-36.89W was disproved with 200% side scan (DEA charted feature item # CF31). ***Concur. Consider Pile PA disproved, delete from chart.***

- The PA Pile (AWOIS Item 3561) at 30-25-08.60N, 088-03-40.02W was disproved with 200% side scan (DEA charted feature item # CF32). ***Concur. Consider Pile PA disproved, delete from chart.***

- The PA Pile (AWOIS Item 3563) at 30-24-43.78N, 088-03-30.52W was disproved with 200% side scan (DEA charted feature item # CF33). ***Concur. Consider Pile PA disproved, delete from chart.***

- The PA Pile (AWOIS Item 3562) at 30-25-00.33N, 088-04-17.37W was disproved with 200% side scan (DEA charted feature item # CF34). ***Concur. Consider Pile PA disproved, delete from chart.***

- The PA Pile (AWOIS Item 3564) at 30-23-16.39N, 088-04-24.91W was disproved with 200% side scan (DEA charted feature item # CF36). ***Concur. Consider Pile PA disproved; delete from chart.***

- The Wreck (AWOIS Item 3565) at 30-22-31.18N, 088-04-46.64W was disproved with 200% side scan sonar (DEA charted feature item # CF38). ***Concur. Consider visible Wreck PA disproved; delete from chart.***

- The PA Obstruction (AWOIS Item 3566) at 30-21-09.96N, 088-06-00.56W was disproved with 200% side scan sonar (DEA charted feature item # CF40). ***Concur. Consider Obstruction PA disproved; delete from chart.***

- The PA piles (AWOIS Item 3525) at 30-20-23.85N, 088-06-27.66W was disproved with 200% side scan sonar (DEA charted feature item # CF47). ***Concur. Consider Pile PA disproved; delete from chart.***

- The PA piles (AWOIS Item 3527) at 30-19-27.85N, 088-06-39.16W were disproved with 200% side scan sonar. Numerous new piles to the NE and SE marking a no shrimping area, were submitted to AHB as DtoN #1 on April 3, 2007 (DEA charted feature item # CF46). ***Concur. Consider Pile PA disproved; delete from chart. Also refer to DR Appendix 1 regarding Danger #1 submission.***

- The PA piles (AWOIS Item 3528) at 30-19-23.19N, 088-06-09.49W were disproved with 200% side scan sonar. Numerous new piles to the NE and SE marking a no shrimping area, were submitted to AHB as DtoN #1 on April 3, 2007 (DEA charted feature item # CF45). ***Concur. Consider Pile PA disproved; delete from chart. Also refer to DR Appendix 1 regarding Danger #1 submission.***

- The PA wreck (AWOIS Item 3529) at 30-20-43.30N, 088-03-41.94W was disproved with 200% side scan sonar (DEA charted feature item # CF41). A large contact was located approximately 100 m north of the disproved charted wreck. and is discussed in Section D1.f of this report. The hydrographer recommends removing PA annotation and wreck symbol and charting new obstruction at the S-57 attributed position. ***Concur with clarification. Delete charted dangerous wreck PA located in Latitude 30°20'43.3"N, Longitude 088°03'41.94"W. DR Section D1.f makes no reference to AWOIS #3529 or to the barge located during H11623. AWOIS #3529 was considered disproved at the charted location;***

H11623 located a barge approximately 160m to the north. Recommend append the chart with a submerged 9-ft (2.94m) wreck (barge) in Latitude 30°20'48.13"N, Longitude 088°03'42.79"W and update the AWOIS database with H11623 results. Also reference Obstruction 6, page 26 of this document.

- The charted Obstruction Tank (AWOIS Item 3514) at 30-17-40.66N, 088-07-31.82W, was disproved with 200% side scan sonar. The second 100% coverage was conducted over a set line spacing of 40 m at 25-meter range scale. The side scan sonar, single beam, and visual search was conducted over a radius 200m (DEA charted feature item # 48). ***Concur with clarification. Consider Obstruction (tank) disproved at the charted location. Recommend to delete charted Obstruction (tank).***

The following charted position approximate AWOIS item was located (Figure 11):

- The PA Wreck (AWOIS Item 3526) was located by this survey by 200% side scan and 100 % multibeam. The least depth of 7 feet (2.25 m) appears to be from line floating off of the wreck (Figure 12). The hydrographer recommends charting the center of the wreck at 30-20-09.09N, 088-06-03.98W and removing the PA annotation (DEA charted feature item # 44). ***Concur with clarification. SS imagery of the feature supports the MB data points. The least depth is approximately 1.2m above the seafloor. Recommend charting a 7-ft (2.225m) wreck at the surveyed position in Latitude 030°20'09.09"N, Longitude 088°06'03.98"W. Recommend revising AWOIS 3526 to the surveyed location and delete wreck PA at the charted location in Latitude 30°20'09.22"N, Longitude 088°06'00.61"W.***

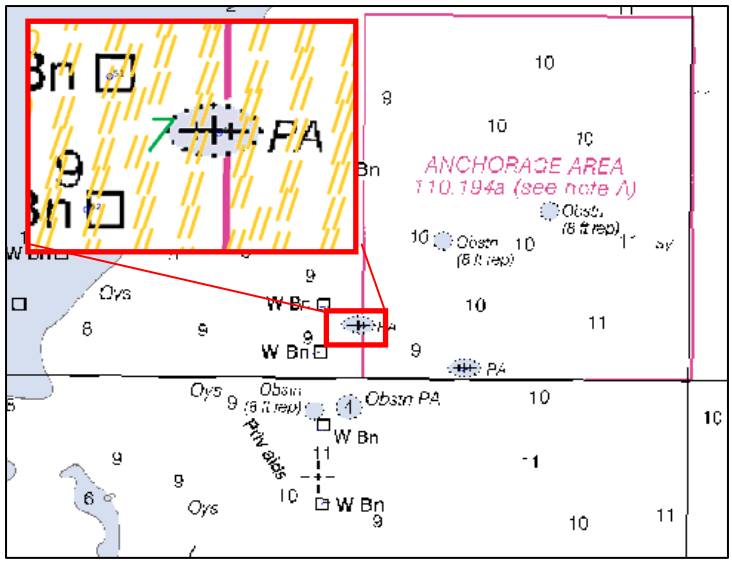


Figure 11. Position Approximate Wreck located on H11623

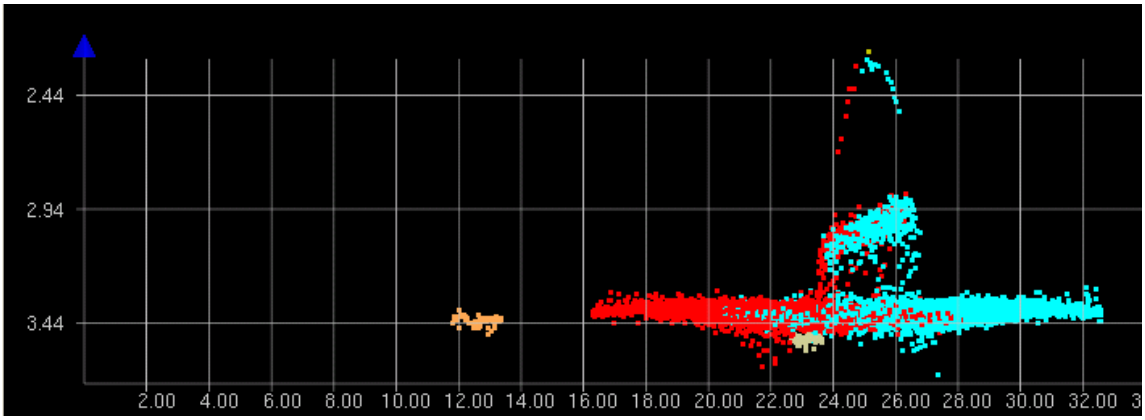


Figure 12. CARIS Subset mode; least depth from Line 2007R_1181628

D1.f Discussion of PA, ED, PD, or Rep Charted Features

Chart 11377 contains seventeen features charted as position approximate. Thirteen of these items are also included in the AWOIS database and are addressed exclusively in Section D1.e of this report.

The following position approximate items were disproved with 200% side scan sonar (Figure 13). The second 100% side scan coverage was obtained using 40-meter line spacing at 25-meter range scale over a radius of at least 100 m around the charted position:

- The PA Wreck at 30-26-33.2N, 088-04-02.14W was disproved with 200% side scan sonar. (DEA charted feature item # CF30) ***Concur. Consider wreck PA disproved, delete charted wreck PA.***

- The PA wreck at 30-20-02.18N, 088-05-40.80W was disproved with 200% side scan sonar (DEA charted feature item # CF43) ***Concur. Consider wreck PA disproved, delete charted wreck PA.***

- The Subm pile ED (uncovers) at 30-21-05.89N, 088-04-29.76W was disproved with 200% side scan sonar (DEA charted feature item # CF39). ***Concur. Consider Subm pile ED (uncovers) disproved, delete charted Subm pile ED.***

- A PA Wreck at 30-25-54.17N, 088-01-55.06W only appears on Chart 11377 and was added after the completion of survey operations on H11623. The wreck is of an unknown source and is not listed in the LNM from April (survey completion) to the time of this writing, nor is it included in the AWOIS database. The wreck was not observed in the 100% side scan coverage. ***Concur. Consider disproved, delete charted wreck PA.***

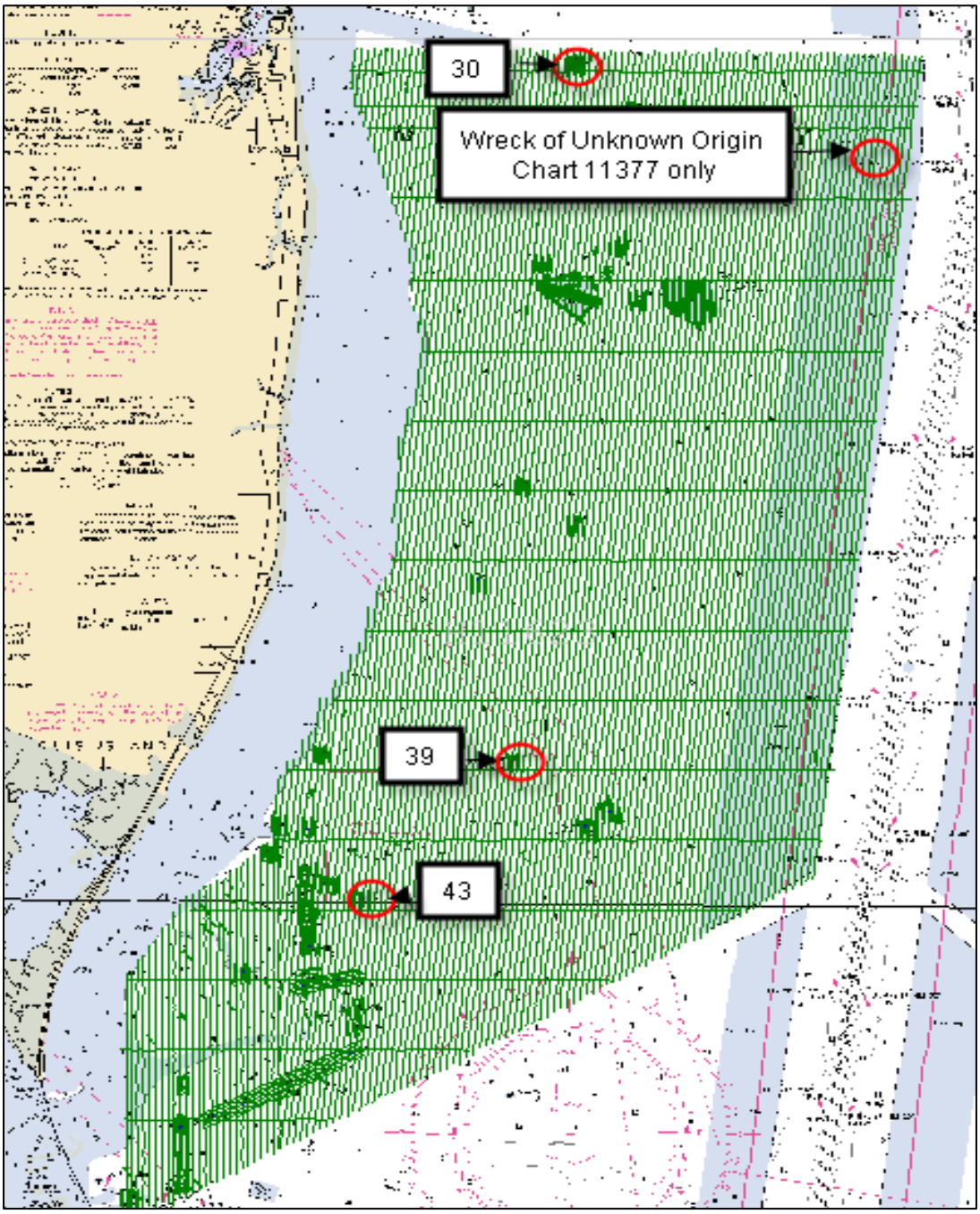


Figure 13. **Charted Position Approximate features**

D1.g New Submerged Features

Seven new obstructions were located by the present survey. All obstructions were S-57 attributed in CARIS Notebook, as described in the NOS *Hydrographic Surveys Specifications and Deliverables* (June 2006).

Obstruction 1, Figure 14, ,is an obstruction located approximately 100 m to the NE of the disproved charted Obstn (tank). The hydrographer recommends charting the new obstruction at 30-17-43.12N, 088-07-29.25W. ***Concur. Chart 7-ft (2.353m) Obstruction at surveyed location. Recommend to update AWOIS #3514 with H11623 results.***

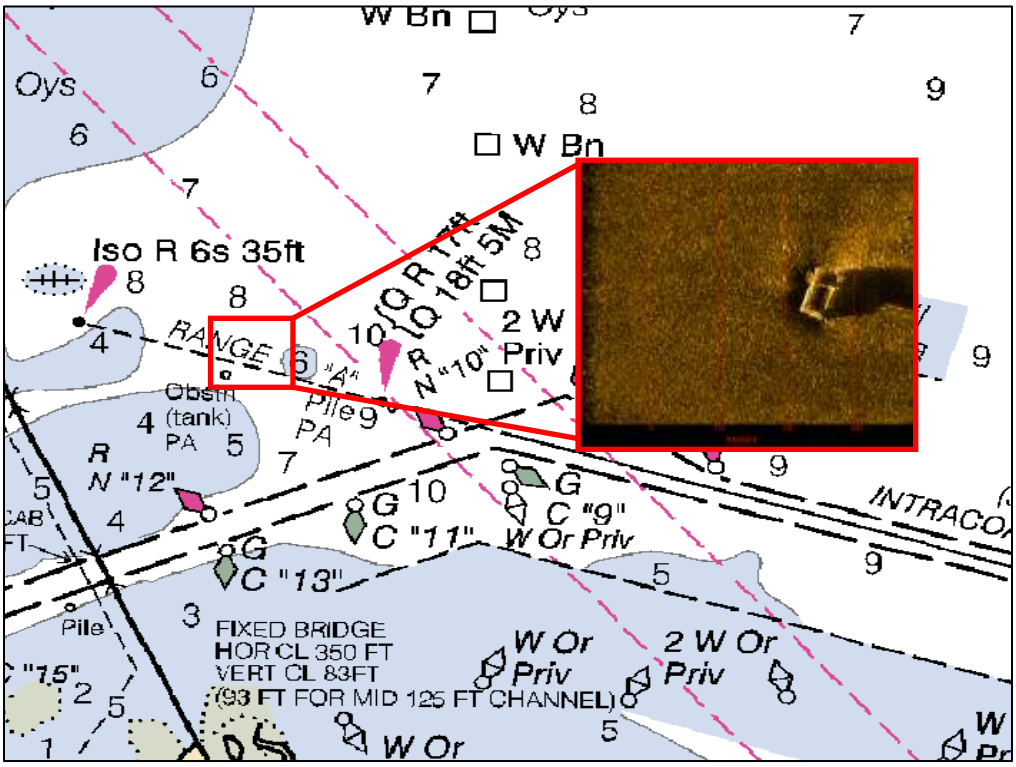


Figure 14. Obstruction 1, side scan contact 109-165001-S, near charted "tank"

Obstruction 2, Figures 15 and 16, is an obstruction located in the vicinity of a charted five-foot shoal. The multibeam least depth on the square obstruction is 6 feet (2.03 m). The hydrographer recommends charting depths based on current hydrography and charting a new obstruction at 30-19-16.09N, 088-06-11.60W. ***Concur. Chart 6-ft Obstruction with a least depth of 6.66-ft (2.03m) at the surveyed location.***

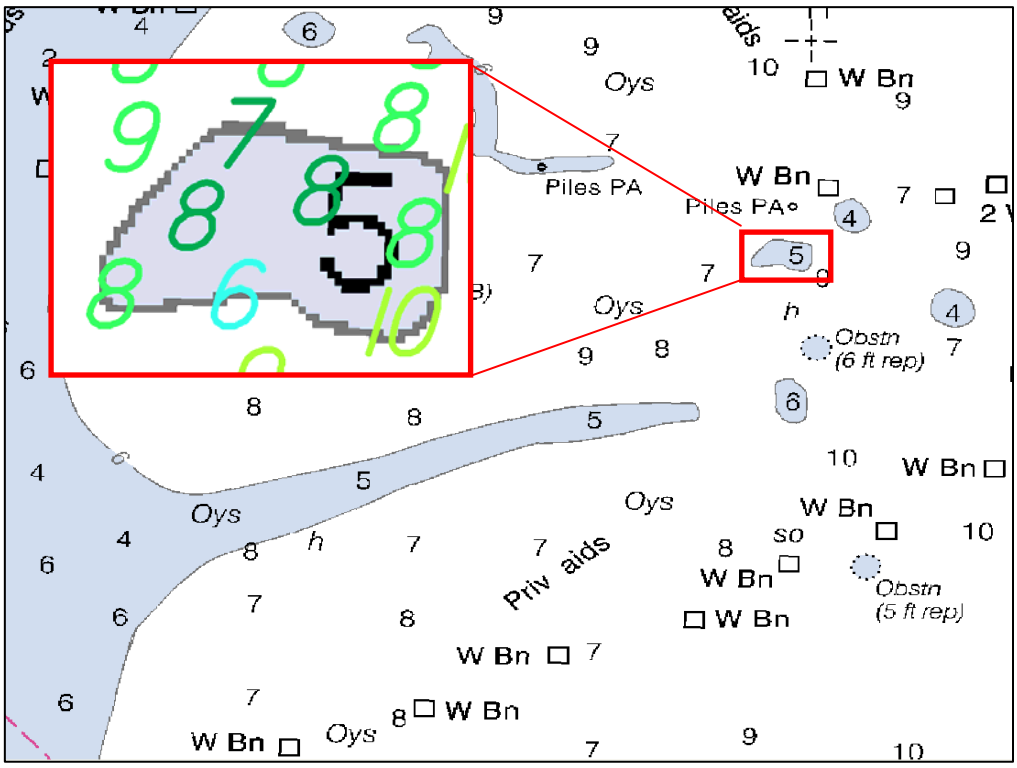


Figure 15. Obstruction 2 near charted 5-ft shoal

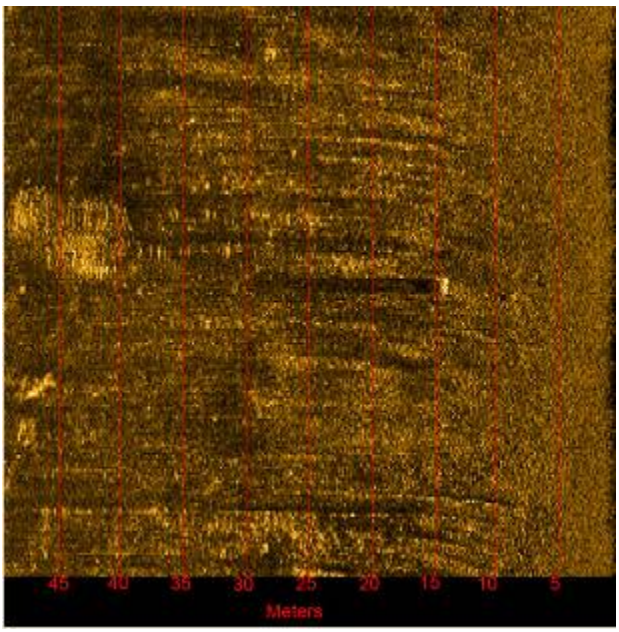


Figure 16. Obstruction 2, side scan contact 84-150332-P

Obstruction 3, Figures 17 and 18, is a new obstruction was located by the present survey at 30-19-18.49N, 088-05-52.03W. The hydrographer believes that the charted 9-ft sounding and the new obstruction may be the same feature and recommends charting the area based on current hydrography. ***Concur with clarification. The second 100% side scan was not acquired as per SOW thus limiting the SS to MB comparison. Feature observed in one side scan line and four MBES development lines; the submitted bathy data was not supported by the side scan imagery. Recommend to chart a 10-ft (2.98m = 9.77-ft) Obstruction at the surveyed location in Latitude 30°19'18.855"N, Longitude 088°05'52.275"W.***

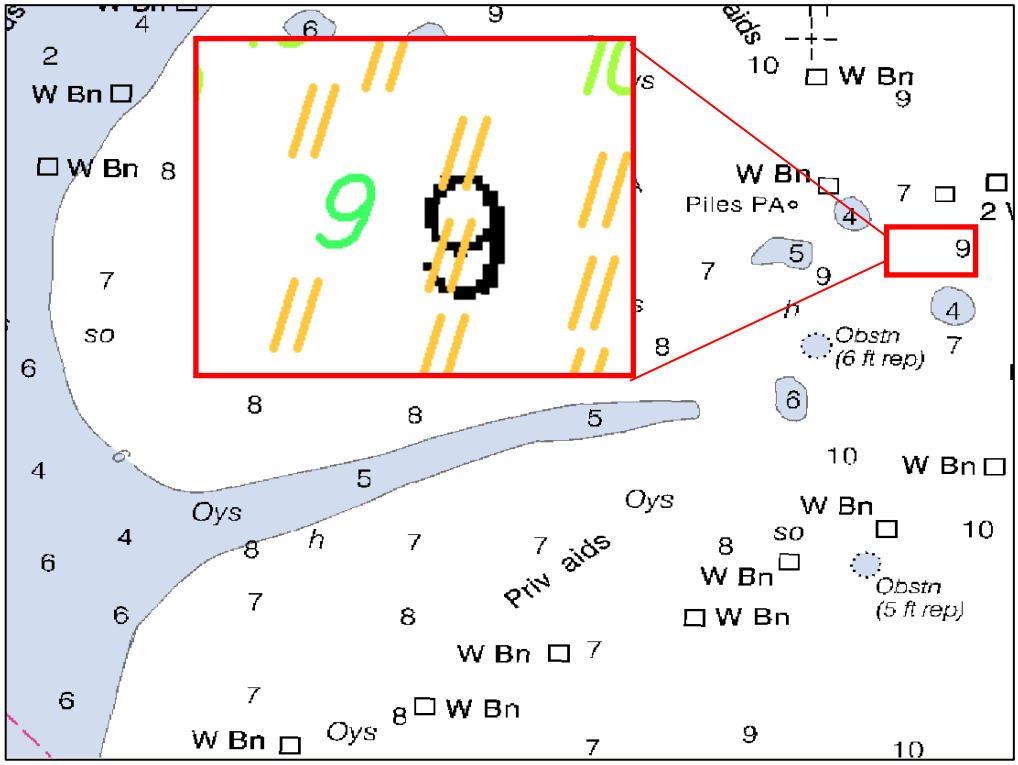


Figure 3. Obstruction 3 near charted 9-ft sounding

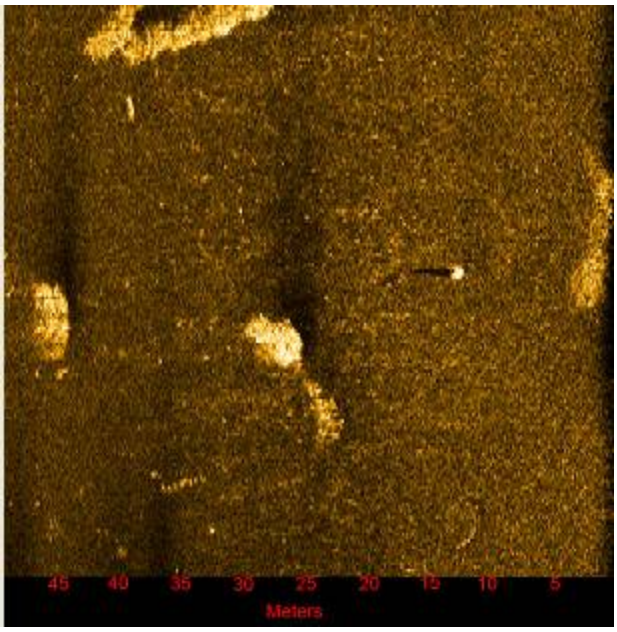


Figure 48. Obstruction 3, side scan contact 84-232630-P

Obstruction 4, Figures 19 and 20, is a new obstruction was located by the present survey. It is possible that this feature is a submerged buoy. The obstruction is located near the south west extents of H11623, in the vicinity of a charted cable area. The hydrographer recommends charting a new obstruction at 30-17-47.21N, 088-07-08.59W. ***Concur with clarification. Recommend to chart a 8-ft Obstruction (least depth of 2.651m (8.69-ft)) at the surveyed location.***

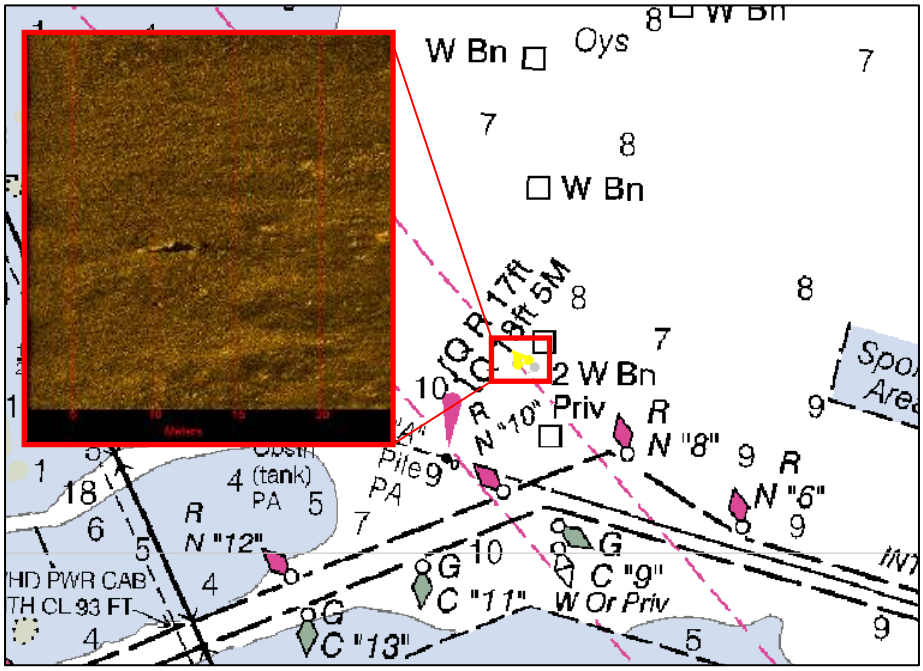


Figure 19. Obstruction 4 near charted pipeline side scan contact 109-164210

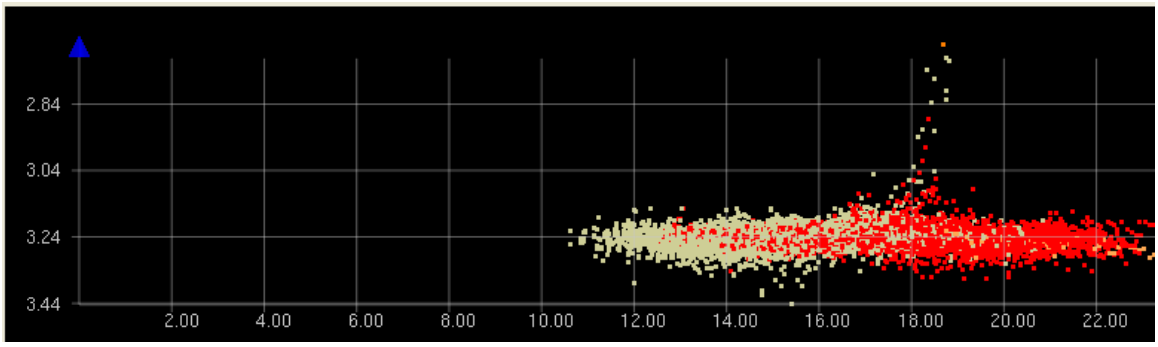


Figure 20. Obstruction 4 viewed in CARIS 2-D subset mode

Obstruction 5, Figures 21 and 22, is a new obstruction located by this survey and appears to be a wreck with ribs visible in the side scan imagery. The feature stands approximately 1-ft proud of the surrounding seabed. Current survey depths in the vicinity are 8 ft and 9 ft. The hydrographer recommends charting a new wreck at 30-19-06.32N, 088-07-07.76W. ***Concur. Recommend to chart a Wreck with least depth of 7-ft (2.309m (7.575-ft)) at the surveyed location.***

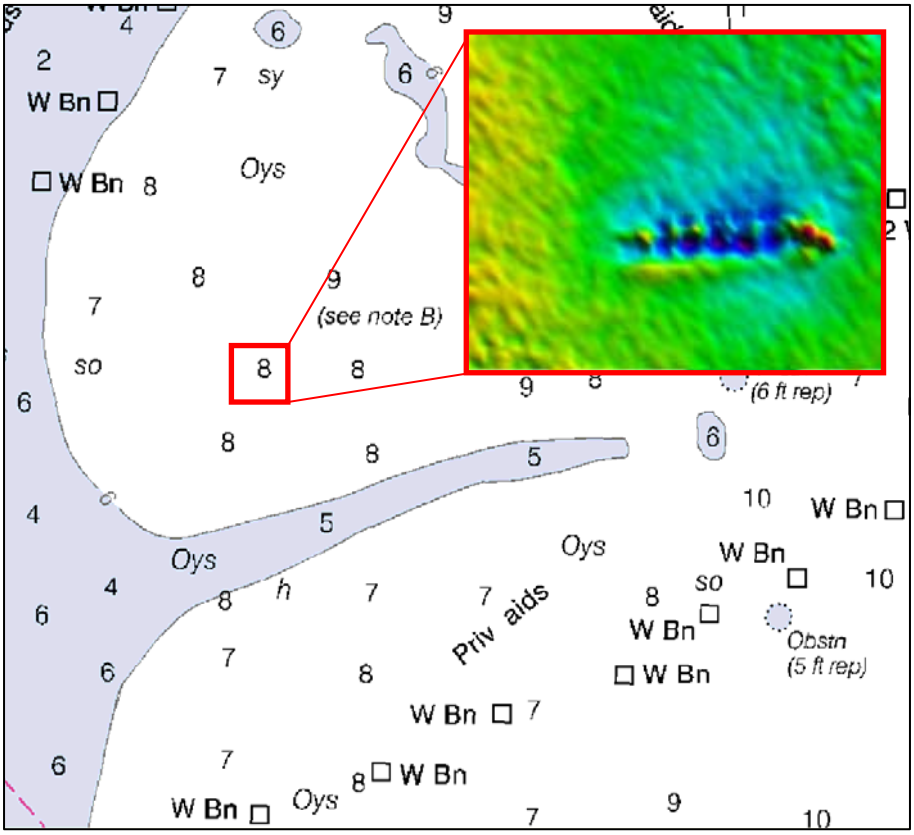


Figure 21. Obstruction 5

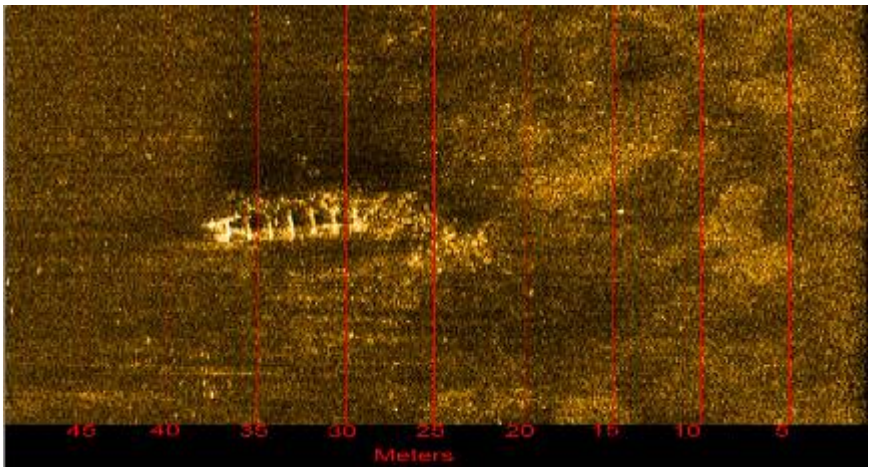


Figure 22. Obstruction 5, side scan contact 77-161400-P

Obstruction 6, Figures 23 and 24, is a new obstruction was located approximately 100 m north of a charted PA wreck (Item # CF 41). The least depth of the obstruction is 9 ft (2.9 m) and surrounding depths are 12 ft (3.6 m). The hydrographer recommends removing the charted PA wreck and charting a new obstruction at 30-20-48.41N, 088-03-42.69W. ***Concur with clarification. Recommend to chart a submerged 9-ft wreck (barge) with a least depth of 2..944m (9.658-ft) at the surveyed location in Latitude 30°20'48.13"N, Longitude 088°03'42.79"W. Reference page 17 of this report, AWOIS #3529.***

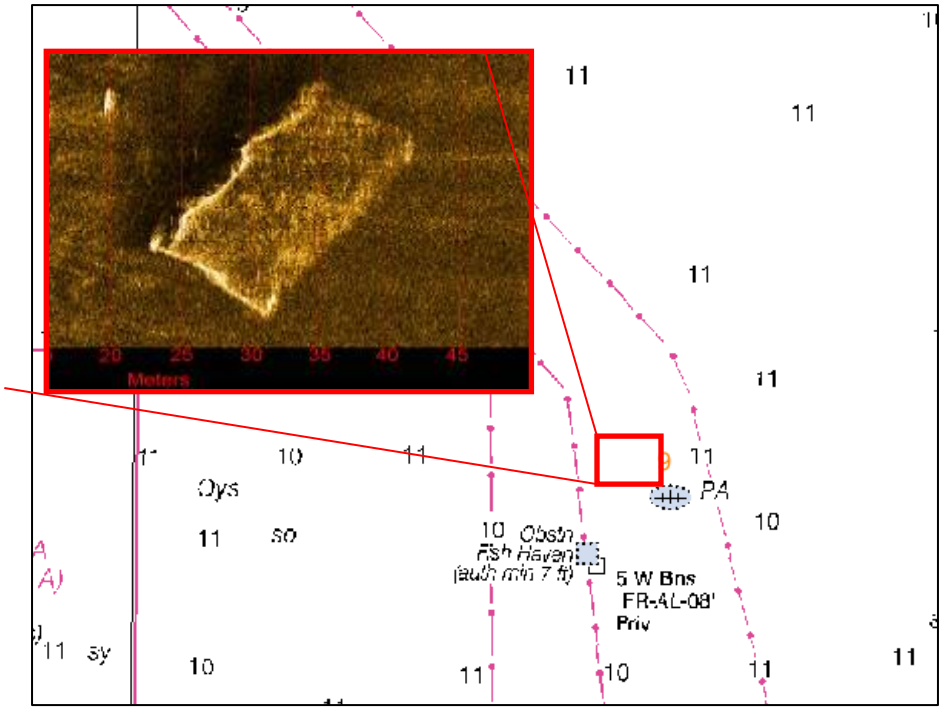


Figure 23. Obstruction 6, contact 70-153226-S

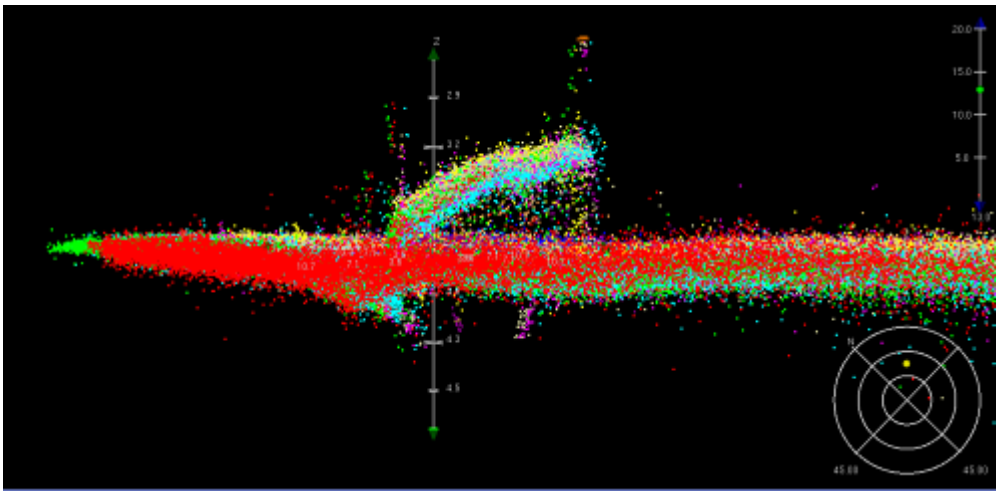


Figure 24. Obstruction 6 in CARIS 3-D subset mode

Obstruction 7, Figures 25 and 26, is a transient feature located in H11623. The obstruction appears to be an awash oyster bed stake with a weighted base that moves randomly during high tides and heavy weather. The obstruction was first located at 30-18-49.19N, 88-06-58.27W. During further investigation it was found to have migrated approximately 107 m to the north. The stake can be pulled up, but is too cumbersome to be pulled free of the bottom by hand. This obstruction was reported to the Eastern Gulf of Mexico Region Navigation Manager, Tim Osborn, on November 29, 2007[5]. A Broadcast Notice to Mariners was issued for this obstruction and is also posted in the LNM 49/07. It is recommended that this feature not be charted as it is a transient feature. ***Concur. No charting action required.***

Figure 25. Oyster stake photographed November 28, 2007

[5] See Appendix V - Supplemental Records and Correspondence

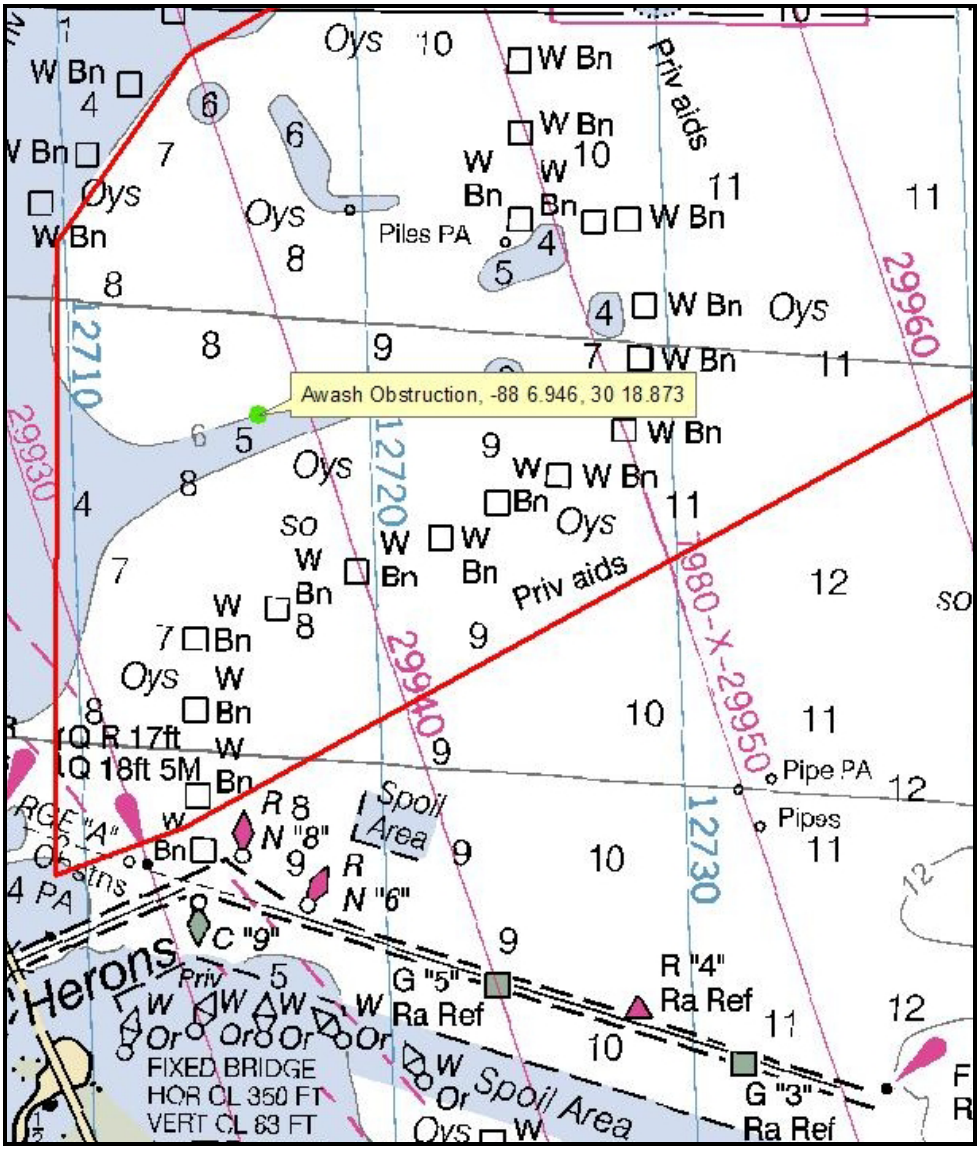


Figure 265. Chartlet of transient obstruction on H11623

D1.h Dangers to Navigation (DtoNs)

Eleven (11) DtoNs were located in survey H11623 and submitted to the Atlantic Hydrographic Branch. The original DtoN submission package is included in Appendix IV. Descriptions of each DtoN are included in the Survey Feature Report in Appendix I~~I~~. ***Concur.***

All but three of the submitted dangers on survey H11623 have been applied to the most recent charts. DtoN #1, submitted on April 3, 2007, which relates to DEA's charted feature items # CF49 through # CF68, has only been applied to the electronic version of the charts. DtoNs #10 and #11 were recently submitted and at the time of writing have not been applied to either of the

raster or electronic versions of the pertinent charts. ***Concur with clarification. Both DtoN #10 & #11 have been applied to the raster chart #11377_1 and ENC US5AL13M.***

The height of submitted DtoN #8 was scaled from side scan sonar shadow length. Subsequent to the submittal of this danger, multibeam data were acquired for least depth determination. The contact was not located in the multibeam bathymetry. The side scan contact may have been a false return on biological matter or other transient feature detected only in the 100% coverage. The hydrographer recommends removing the charted obstruction circle and five-foot sounding and charting the area based on current hydrography. *Concur. The feature has been considered disproved by development data. Delete charted Obstruction (5-ft rep) located in Latitude 30°18' 38.310" N, Longitude 088°06'00.730" W.*

D2. Additional Results

D2.a Shoreline Investigations

Shoreline verification was not required for survey H11623.

D2.b Comparison with Prior Surveys

Comparison with prior surveys was not required under this task order. ***Concur.***

D2.c Aids to Navigation`

All aids to navigation within H11623 survey limits were found to be correctly charted and serve their intended purpose with the exception of the following:

- Charted marker at 30-22-58.57N, 088-04-00.52W was not located and disproved with 200% side scan sonar and visual search (DEA charted feature item #CF37). ***Concur. Considered as disproved, delete charted marker.***

- The private aid charted as 5 W Bns "FR-AL-08" at 30-20-34.91N, 088-03-52.38W was not located and disproved with 200% side scan sonar and visual search (DEA charted feature item #CF69). ***Concur. Considered disproved, delete charted private beacon.***

- A temporary U.S. Coast Guard buoy "WR" (Figure 27) was located at 30-18-34.83N, 088-07-08.35W. The anchor block of the buoy is visible in the side scan record (Contact 77-161838-P and 109-154225-S). The hydrographer believes this buoy is off station and intended to mark the nearby charted wreck. ***Concur with clarification. AHB contacted the Gulf of Mexico Navigation Manager about this feature. Email and phone conversations between AHB and the Nav Manager indicate the USCG assumes responsibility for the navigational aid. The navigational aid has been relocated to mark a wreck (30°19'06.32"N,***

088°07'07.76"W) as intended. The feature will not be included in H11623 H-Cell and AHB defers final charting disposition to MCD, Nautical Data Branch.

Figure 27. Temporary aid to navigation

D2.d Overhead Clearance

There are no overhead bridges, cables or other structures, which would impact overhead clearance in the survey area. ***Concur.***

D2.e Cables, Pipelines and Offshore Structures

There is a pipeline that crosses H11623 survey area; the terminus of the pipeline and associated production platforms are not within the survey limits. There is no surface evidence of this feature evident in the side scan sonar data. The pipeline is most likely buried and the hydrographer recommends retaining the pipeline area as charted. ***Concur.***

The south west extent of H11623 contains one cable area which is also not exposed in the side scan imagery. ***Concur.***

There were no observed drilling structures or well heads within the survey limits. ***None noted during AHB review.***

D2.f Environmental Conditions and Scientific Significance

There are numerous oyster beds contained in H11623 survey area that may be of scientific and commercial significance. The extents of the oyster bed are clearly visible in the delivered 50-centimeter side scan mosaics (Figure 28) and appear as mounds in the single beam bathymetry. Upon request, the raw HYPACK digital echogram data (.BIN files) can be supplied to interested parties. The oyster beds have a much stronger digital return in the echogram than the surrounding seafloor making them easy to identify.

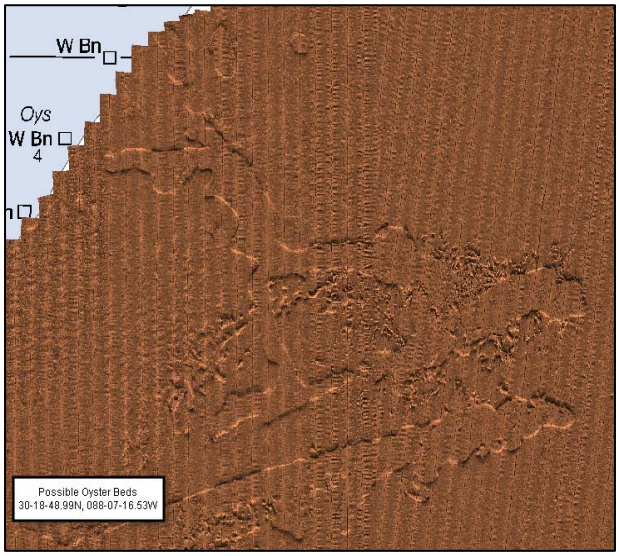


Figure 28. Side scan mosaic of possible oyster bed

D2.g Construction Projects

No construction or dredging activities were observed during survey operations.

D2.h Bottom Characteristics

Twenty-seven (27) bottom samples were collected for survey H11623. Bottom characteristics are attributed in the S-57 feature file. A table listing the position and description of obtained bottom samples is included in Appendix V along with photographs of each sample.
Concur with clarification. H11623 H-Cell contains SBDARE (seabed) descriptions of sediment characteristics. The number has been reduced to 18 for chart scale compilation.

E. APPROVAL SHEET

DAVID EVANS AND ASSOCIATES INC.

LETTER OF APPROVAL

S-J977-KR-DEA
REGISTRY NO. H11623

This report and the accompanying data are respectfully submitted.

Field operations contributing to the accomplishment of survey H11623 were conducted under my direct supervision with frequent personal checks of progress and adequacy. This report and associated data have been closely reviewed and are considered complete and adequate as per the Statement of Work.

Digitally signed by Jon Dasler
DN: CN = Jon Dasler, C = US, O = David Evans and Associates, Inc.
Date: 2007.12.28 13:53:45 -08'00'

Jonathan L. Dasler, PE (OR) , PLS (OR,CA)
Lead Hydrographer

Digitally signed by Jason Creech
DN: CN = Jason Creech, C = US, O = David Evans and Associates, Inc.
Date: 2007.12.28 13:54:32 -08'00'

Jason Creech
Lead Hydrographer

David Evans and Associates, Inc.
April 2007

APPENDIX I
DANGER TO NAVIGATION REPORTS

Registry Number: H11623

State: Alabama

Locality: Mobile Bay

Sub-locality: Mobile Point to Bon Secour River

Project Number: OPR-S-J977-KR-DEA

Survey Date: 03/27/2007

Charts Affected

Number	Version	Date	Scale
11377	5th Ed.	06/01/2003	1:40000
11378	34th Ed.	02/01/2006	1:40000
11376	51st Ed.	02/01/2006	1:80000
1115A	41st Ed.	03/01/2005	1:456394
11360	41st Ed.	03/01/2005	1:456394
11006	32nd Ed.	08/01/2005	1:875000
411	51st Ed.	12/01/2006	1:2160000

Features

No.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	Dton 1.1	GP	-2.65 m	030° 20' 52.940" N	88° 06' 17.710" W	---
1.2	Dton 1.2	GP	-2.35 m	030° 20' 50.400" N	88° 06' 06.180" W	---
1.3	Dton 1.3	GP	-3.11 m	030° 20' 22.680" N	88° 06' 04.190" W	---
1.4	Dton 1.4	GP	-3.11 m	030° 20' 09.600" N	88° 06' 03.490" W	---
1.5	Dton 1.5	GP	-2.96 m	030° 19' 55.580" N	88° 06' 01.850" W	---
1.6	Dton 1.6	GP	-2.96 m	030° 19' 42.970" N	88° 06' 02.221" W	---
1.7	Dton 1.7	GP	-2.96 m	030° 19' 41.850" N	88° 05' 49.090" W	---
1.8	Dton 1.8	GP	-3.11 m	030° 19' 02.090" N	88° 05' 54.530" W	---
1.9	Dton 1.9	GP	-2.65 m	030° 18' 55.840" N	88° 06' 07.070" W	---
1.10	Dton 1.10	GP	-2.65 m	030° 18' 51.110" N	88° 06' 17.820" W	---
1.11	Dton 1.11	GP	-3.26 m	030° 18' 44.090" N	88° 06' 33.030" W	---
1.12	Dton 1.12	GP	-2.96 m	030° 18' 35.850" N	88° 06' 49.590" W	---
1.13	Dton 1.13	GP	-2.65 m	030° 18' 29.210" N	88° 07' 03.120" W	---

1.14	Dton 1.14	GP	-2.65 m	030° 18' 21.370" N	88° 07' 02.750" W	---
1.15	Dton 1.15	GP	-2.96 m	030° 18' 08.550" N	88° 07' 02.520" W	---
1.16	Dton 1.16	GP	-2.65 m	030° 17' 58.030" N	88° 07' 02.360" W	---

1.1) Dton 1.1

DANGER TO NAVIGATION

Survey Summary

Survey Position: 030° 20' 52.940" N, 88° 06' 17.710" W

Least Depth: -2.65 m

Timestamp: 2007-086.00:00:00.000 (03/27/2007)

GP Dataset: H11623_AHB_DtoN1_pydro.txt

GP No.: 1

Charts Affected: 11377_1, 11376_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

A pile with sign was located during survey operations. The submitted piles delineate the boundaries of shellfishing limits for the area established by the Alabama Marine Resources Division. The pile is a wooden post baring 8 feet above MLLW with a sign attached.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11623_AHB_DtoN1_pydro.txt	1	0.00	000.0	Primary

Hydrographer Recommendations

Chart feature as a beacon (bn) at the surveyed location.

Cartographically-Rounded Depth (Affected Charts):

-9ft (11377_1, 11376_1)

-1 ½fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

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

Attributes: CATSPM - 27:general warning mark

CONRAD - 1:radar conspicuous

HEIGHT - 2.35 m

INFORM - Beacon serves as a marker defining or delineating prohibited shrimping area

SORDAT - 20070327

SORIND - US,US,surve,H11623

STATUS - 1:permanent

VERDAT - 12:Mean lower low water

Feature Images

IMG_1.jpg

IMG_2.jpg

IMG_3.jpg

IMG_3A.jpg

IMG_4.jpg

IMG_5.jpg

IMG_6.jpg

IMG_7.jpg

Figure 1.1.1

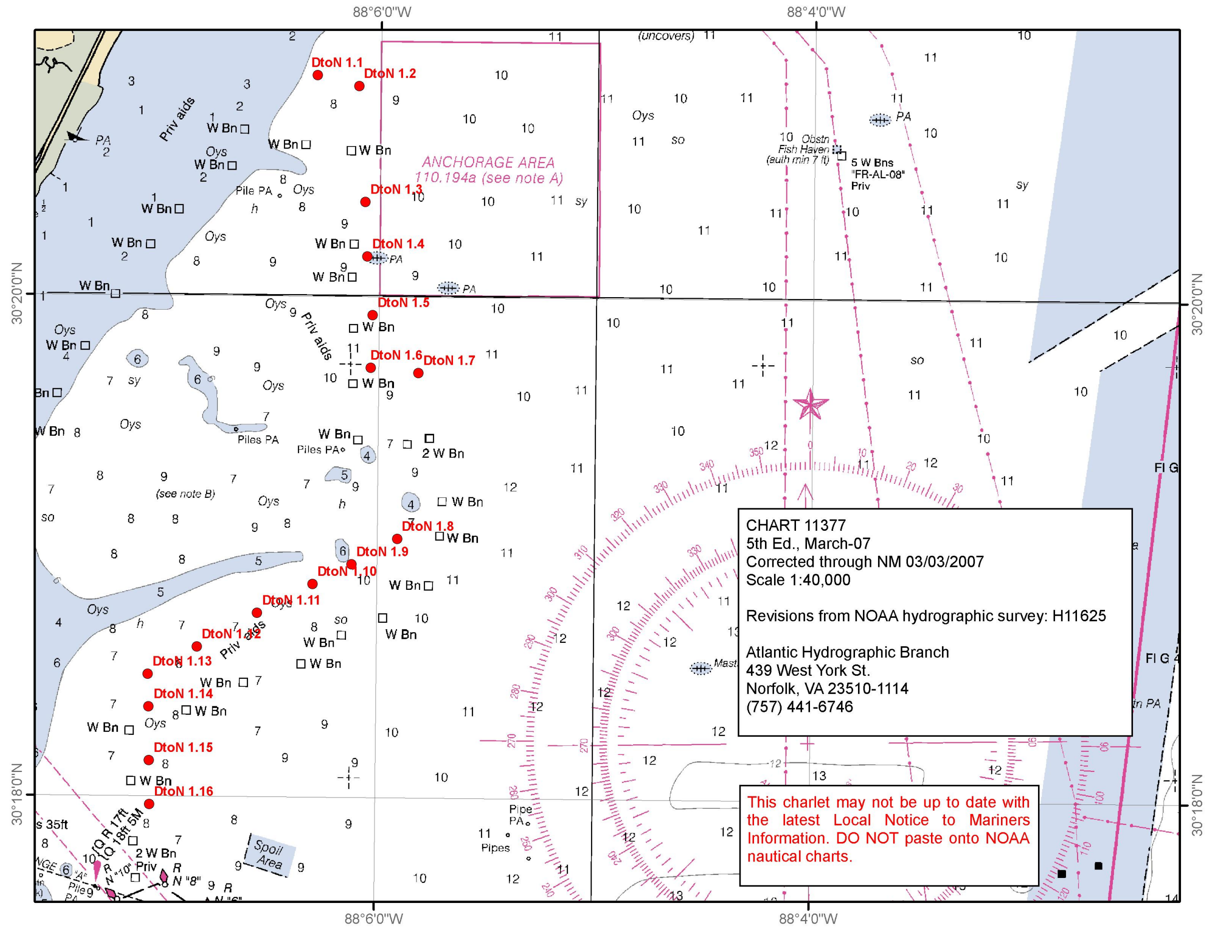

88°6'0"W
88°4'0"W
30°20'0"N
30°18'0"N
DtoN 1.1
DtoN 1.2
DtoN 1.3
DtoN 1.4
DtoN 1.5
DtoN 1.6
DtoN 1.7
DtoN 1.8
DtoN 1.9
DtoN 1.10
DtoN 1.11
DtoN 1.12
DtoN 1.13
DtoN 1.14
DtoN 1.15
DtoN 1.16
ANCHORAGE AREA
110.194a (see note A)
CHART 11377
5th Ed., March-07
Corrected through NM 03/03/2007
Scale 1:40,000
Revisions from NOAA hydrographic survey: H11625
Atlantic Hydrographic Branch
439 West York St.
Norfolk, VA 23510-1114
(757) 441-6746
This charlet may not be up to date with the latest Local Notice to Mariners Information. DO NOT paste onto NOAA nautical charts.

Figure 1.1.2

1.2) Dton 1.2

DANGER TO NAVIGATION

Survey Summary

Survey Position: 030° 20' 50.400" N, 88° 06' 06.180" W

Least Depth: -2.35 m

Timestamp: 2007-086.00:00:00.000 (03/27/2007)

GP Dataset: H11623_AHB_DtoN1_pydro.txt

GP No.: 2

Charts Affected: 11377_1, 11376_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

A pile with sign was located during survey operations. The submitted piles delineate the boundaries of shellfishing limits for the area established by the Alabama Marine Resources Division. The pile is a wooden post baring 7 feet above MLLW with a sign attached.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11623_AHB_DtoN1_pydro.txt	2	0.00	000.0	Primary

Hydrographer Recommendations

Chart feature as a beacon (bn) at the surveyed location.

Cartographically-Rounded Depth (Affected Charts):

-8ft (11377_1, 11376_1)

-1 ¼fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

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

Attributes: CATSPM - 27:general warning mark

CONRAD - 1:radar conspicuous

HEIGHT ~~-3.11~~ ***-2.040*** m

INFORM - Beacon serves as a marker defining or delineating prohibited shrimping area

SORDAT - 20070327

SORIND - US,US,surve,H11623

STATUS - 1:permanent

VERDAT - ~~12:Mean lower low water~~ ***16 MHW***

1.3) Dton 1.3

DANGER TO NAVIGATION

Survey Summary

Survey Position: 030° 20' 22.680" N, 88° 06' 04.190" W

Least Depth: -3.11 m

Timestamp: 2007-086.00:00:00.000 (03/27/2007)

GP Dataset: H11623_AHB_DtoN1_pydro.txt

GP No.: 3

Charts Affected: 11377_1, 11378_6, 11376_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

A pile with sign was located during survey operations. The submitted piles delineate the boundaries of shellfishing limits for the area established by the Alabama Marine Resources Division. The pile is a wooden post baring 10 feet above MLLW with a sign attached. The pile also contains a sign with the number 13 on it.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11623_AHB_DtoN1_pydro.txt	3	0.00	000.0	Primary

Hydrographer Recommendations

Chart feature as a beacon (bn) at the surveyed location.

Cartographically-Rounded Depth (Affected Charts):

-10ft (11377_1, 11378_6, 11376_1)

-1 ¾fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

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

Attributes: CATSPM - 27:general warning mark

CONRAD - 1:radar conspicuous

HEIGHT - ~~3.11~~ ***-2.740*** m

INFORM - Beacon serves as a marker defining or delineating prohibited shrimping area

SORDAT - 20070327

SORIND - US,US,surve,H11623

STATUS - 1:permanent

VERDAT - ~~12:Mean lower low water~~ ***16 MHW***

1.4) Dton 1.4

DANGER TO NAVIGATION

Survey Summary

Survey Position: 030° 20' 09.600" N, 88° 06' 03.490" W

Least Depth: -3.11 m

Timestamp: 2007-086.00:00:00.000 (03/27/2007)

GP Dataset: H11623_AHB_DtoN1_pydro.txt

GP No.: 4

Charts Affected: 11377_1, 11378_6, 11376_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

A pile with sign was located during survey operations. The submitted piles delineate the boundaries of shellfishing limits for the area established by the Alabama Marine Resources Division. The pile is a wooden post baring 10 feet above MLLW with a sign attached.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11623_AHB_DtoN1_pydro.txt	4	0.00	000.0	Primary

Hydrographer Recommendations

Chart feature as a beacon (bn) at the surveyed location.

Cartographically-Rounded Depth (Affected Charts):

-10ft (11377_1, 11378_6, 11376_1)

-1 ¾fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

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

Attributes: CONRAD - 1:radar conspicuous

HEIGHT ~~-3.11~~ ***-2.740*** m

INFORM - Beacon serves as a marker defining or delineating prohibited shrimping area

SORDAT - 20070327

SORIND - US,US,surve,H11623

STATUS - 1:permanent

VERDAT ~~- 12:Mean lower low water~~ ***16 MHW***

Feature Images

Figure 1.4.1

1.5) Dton 1.5

DANGER TO NAVIGATION

Survey Summary

Survey Position: 030° 19' 55.580" N, 88° 06' 01.850" W

Least Depth: -2.96 m

Timestamp: 2007-086.00:00:00.000 (03/27/2007)

GP Dataset: H11623_AHB_DtoN1_pydro.txt

GP No.: 5

Charts Affected: 11377_1, 11378_6, 11376_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

A pile with sign was located during survey operations. The submitted piles delineate the boundaries of shellfishing limits for the area established by the Alabama Marine Resources Division. The pile is a wooden post baring 9 feet above MLLW with a sign attached.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11623_AHB_DtoN1_pydro.txt	5	0.00	000.0	Primary

Hydrographer Recommendations

Chart feature as a beacon (bn) at the surveyed location.

Cartographically-Rounded Depth (Affected Charts):

-10ft (11377_1, 11378_6, 11376_1)

-1 ½fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

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

Attributes: CATSPM - 27:general warning mark

CONRAD - 1:radar conspicuous

HEIGHT - ~~2.96~~ ***-2.640*** m

INFORM - Beacon serves as a marker defining or delineating prohibited shrimping area

SORDAT - 20070327

SORIND - US,US,surve,H11623

STATUS - 1:permanent

VERDAT - ~~12:Mean lower low water~~ ***16 MHW***

1.6) Dton 1.6

DANGER TO NAVIGATION

Survey Summary

Survey Position:	030° 19' 42.970" N, 88° 06' 02.221" W
Least Depth:	~~-2.96~~ ***-2.640*** m
Timestamp:	2007-086.00:00:00.000 (03/27/2007)
GP Dataset:	H11623_AHB_DtoN1_pydro.txt
GP No.:	6
Charts Affected:	11377_1, 11378_6, 11376_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

A pile with sign was located during survey operations. The submitted piles delineate the boundaries of shellfishing limits for the area established by the Alabama Marine Resources Division. The pile is a wooden post baring 9 feet above MLLW with a sign attached.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11623_AHB_DtoN1_pydro.txt	6	0.00	000.0	Primary

Hydrographer Recommendations

Chart feature as a beacon (bn) at the surveyed location.

Cartographically-Rounded Depth (Affected Charts):

-10ft (11377_1, 11378_6, 11376_1)

-1 ½fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

Geo object 1:	Beacon, special purpose/general (BCNSPP)
Attributes:	CATSPM - 27:general warning mark
	CONRAD - 1:radar conspicuous
	HEIGHT - ~~2.96~~ ***-2.640*** m
	INFORM - Beacon serves as a marker defining or delineating prohibited shrimping area
	SORDAT - 20070327

SORIND - US,US,surve,H11623

STATUS - 1:permanent

VERDAT ~~- 12:Mean lower low water~~ ***16 MHW***

1.7) Dton 1.7

DANGER TO NAVIGATION

Survey Summary

Survey Position:	030° 19' 41.850" N, 88° 05' 49.090" W
Least Depth:	~~-2.96~~ ***-2.640*** m
Timestamp:	2007-086.00:00:00.000 (03/27/2007)
GP Dataset:	H11623_AHB_DtoN1_pydro.txt
GP No.:	7
Charts Affected:	11377_1, 11378_6, 11376_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

A pile with sign was located during survey operations. The submitted piles delineate the boundaries of shellfishing limits for the area established by the Alabama Marine Resources Division. The pile is a wooden post baring 9 feet above MLLW with a sign attached.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11623_AHB_DtoN1_pydro.txt	7	0.00	000.0	Primary

Hydrographer Recommendations

Chart feature as a beacon (bn) at the surveyed location.

Cartographically-Rounded Depth (Affected Charts):

-10ft (11377_1, 11378_6, 11376_1)

-1 ½fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

Geo object 1:	Beacon, special purpose/general (BCNSPP)
Attributes:	CATSPM - 27:general warning mark
	CONRAD - 1:radar conspicuous
	HEIGHT - ~~2.96~~ ***-2.640*** m
	INFORM - Beacon serves as a marker defining or delineating prohibited shrimping area
	SORDAT - 20070327

SORIND - US,US,surve,H11623

STATUS - 1:permanent

VERDAT - ~~12:Mean lower low water~~ ***16 MHW***

1.8) Dton 1.8

DANGER TO NAVIGATION

Survey Summary

Survey Position: 030° 19' 02.090" N, 88° 05' 54.530" W

Least Depth: ~~-3.11~~ ***-2.740*** m

Timestamp: 2007-086.00:00:00.000 (03/27/2007)

GP Dataset: H11623_AHB_DtoN1_pydro.txt

GP No.: 8

Charts Affected: 11377_1, 11378_6, 11376_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

A pile with sign was located during survey operations. The submitted piles delineate the boundaries of shellfishing limits for the area established by the Alabama Marine Resources Division. The pile is a wooden post baring 9 feet above MLLW with a sign attached.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11623_AHB_DtoN1_pydro.txt	8	0.00	000.0	Primary

Hydrographer Recommendations

Chart feature as a beacon (bn) at the surveyed location.

Cartographically-Rounded Depth (Affected Charts):

-10ft (11377_1, 11378_6, 11376_1)

-1 ¾fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

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

Attributes: CATSPM - 27:general warning mark

CONRAD - 1:radar conspicuous

HEIGHT - ~~3.11~~ ***-2.740*** m

INFORM - Beacon serves as a marker defining or delineating prohibited shrimping area

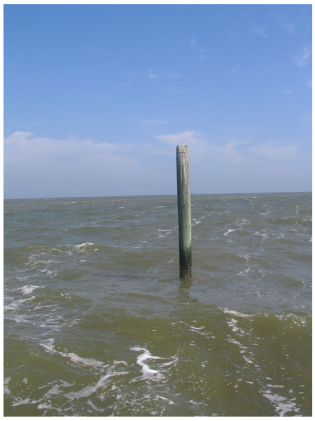
SORDAT - 20070327

SORIND - US,US,surve,H11623

STATUS - 1:permanent

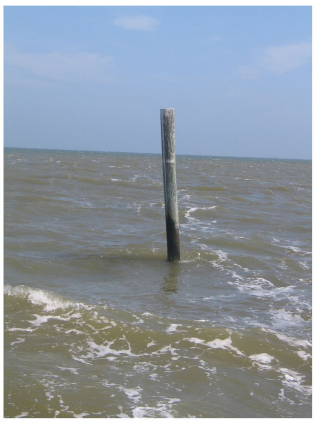
VERDAT ~~- 12:Mean lower low water~~ ***16- MHW***

Feature Images



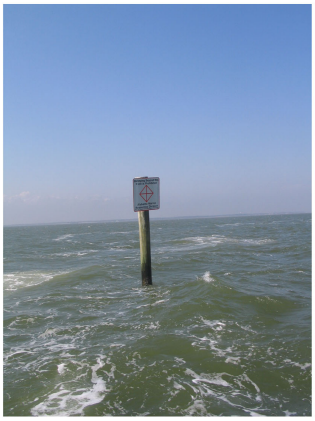
IMG_8.jpg

IMG_9.jpg



IMG_10.jpg

IMG_11.jpg



IMG_12.jpg

IMG_13.jpg

IMG_13A.jpg

IMG_14.jpg

Figure 1.8.1

1.9) Dton 1.9

DANGER TO NAVIGATION

Survey Summary

Survey Position:	030° 18' 55.840" N, 88° 06' 07.070" W
Least Depth:	~~-2.65~~ ***-2.260*** m
Timestamp:	2007-086.00:00:00.000 (03/27/2007)
GP Dataset:	H11623_AHB_DtoN1_pydro.txt
GP No.:	9
Charts Affected:	11377_1, 11378_6, 11376_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

A pile with sign was located during survey operations. The submitted piles delineate the boundaries of shellfishing limits for the area established by the Alabama Marine Resources Division. The pile is a wooden post baring 8 feet above MLLW with a sign attached.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11623_AHB_DtoN1_pydro.txt	9	0.00	000.0	Primary

Hydrographer Recommendations

Chart feature as a beacon (bn) at the surveyed location.

Cartographically-Rounded Depth (Affected Charts):

-9ft (11377_1, 11378_6, 11376_1)

-1 ½fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

Geo object 1:	Beacon, special purpose/general (BCNSPP)
Attributes:	CATSPM - 27:general warning mark
	CONRAD - 1:radar conspicuous
	HEIGHT - ~~2.65~~ ***-2.260*** m
	INFORM - Beacon serves as a marker defining or delineating prohibited shrimping area
	SORDAT - 20070327

SORIND - US,US,surve,H11623

STATUS - 1:permanent

VERDAT ~~- 12:Mean lower low water~~ ***16- MHW***

1.10) Dton 1.10

DANGER TO NAVIGATION

Survey Summary

Survey Position: 030° 18' 51.110" N, 88° 06' 17.820" W

Least Depth: ~~-2.65~~ ***-2.260*** m

Timestamp: 2007-086.00:00:00.000 (03/27/2007)

GP Dataset: H11623_AHB_DtoN1_pydro.txt

GP No.: 10

Charts Affected: 11377_1, 11378_6, 11376_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

A pile with sign was located during survey operations. The submitted piles delineate the boundaries of shellfishing limits for the area established by the Alabama Marine Resources Division. The pile is a wooden post baring 8 feet above MLLW with a sign attached.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11623_AHB_DtoN1_pydro.txt	10	0.00	000.0	Primary

Hydrographer Recommendations

Chart feature as a beacon (bn) at the surveyed location.

Cartographically-Rounded Depth (Affected Charts):

-9ft (11377_1, 11378_6, 11376_1)

-1 ½fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

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

Attributes: CATSPM - 27:general warning mark

CONRAD - 1:radar conspicuous

HEIGHT ~~-2.65~~ ***-2.260*** m

INFORM - Beacon serves as a marker defining or delineating prohibited shrimping area

SORDAT - 20070327

SORIND - US,US,surve,H11623

STATUS - 1:permanent

VERDAT - ~~12:Mean lower low water~~ ***16- MHW***

1.11) Dton 1.11

DANGER TO NAVIGATION

Survey Summary

Survey Position:	030° 18' 44.090" N, 88° 06' 33.030" W
Least Depth:	~~-3.26~~ ***-2.940*** m
Timestamp:	2007-086.00:00:00.000 (03/27/2007)
GP Dataset:	H11623_AHB_DtoN1_pydro.txt
GP No.:	11
Charts Affected:	11377_1, 11378_6, 11376_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

A pile with sign was located during survey operations. The submitted piles delineate the boundaries of shellfishing limits for the area established by the Alabama Marine Resources Division. The pile is a wooden post baring 10 feet above MLLW with a sign attached.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11623_AHB_DtoN1_pydro.txt	11	0.00	000.0	Primary

Hydrographer Recommendations

Chart feature as a beacon (bn) at the surveyed location.

Cartographically-Rounded Depth (Affected Charts):

-11ft (11377_1, 11378_6, 11376_1)

-1 ¾fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

Geo object 1:	Beacon, special purpose/general (BCNSPP)
Attributes:	CATSPM - 27:general warning mark
	CONRAD - 1:radar conspicuous
	HEIGHT ~~-3.26~~ ***-2.940*** m
	INFORM - Beacon serves as a marker defining or delineating prohibited shrimping area
	SORDAT - 20070327

SORIND - US,US,surve,H11623

STATUS - 1:permanent

VERDAT ~~- 11:Nearly lowest low water~~ ***16- MHW***

1.12) Dton 1.12

DANGER TO NAVIGATION

Survey Summary

Survey Position:	030° 18' 35.850" N, 88° 06' 49.590" W
Least Depth:	~~-2.96~~ ***-2.640*** m
Timestamp:	2007-086.00:00:00.000 (03/27/2007)
GP Dataset:	H11623_AHB_DtoN1_pydro.txt
GP No.:	12
Charts Affected:	11377_1, 11378_6, 11376_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

A pile with sign was located during survey operations. The submitted piles delineate the boundaries of shellfishing limits for the area established by the Alabama Marine Resources Division. The pile is a wooden post baring 9 feet above MLLW with a sign attached.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11623_AHB_DtoN1_pydro.txt	12	0.00	000.0	Primary

Hydrographer Recommendations

Chart feature as a beacon (bn) at the surveyed location.

Cartographically-Rounded Depth (Affected Charts):

-10ft (11377_1, 11378_6, 11376_1)

-1 ½fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

Geo object 1:	Beacon, special purpose/general (BCNSPP)
Attributes:	CATSPM - 27:general warning mark
	CONRAD - 1:radar conspicuous
	HEIGHT - ~~2.96~~ ***-2.640*** m
	INFORM - Beacon serves as a marker defining or delineating prohibited shrimping area
	SORDAT - 20070327

SORIND - US,US,surve,H11623

STATUS - 1:permanent

VERDAT - ~~12:Mean lower low water~~ ***16- MHW***

1.13) Dton 1.13

DANGER TO NAVIGATION

Survey Summary

Survey Position:	030° 18' 29.210" N, 88° 07' 03.120" W
Least Depth:	~~-2.65~~ ***-2.260*** m
Timestamp:	2007-086.00:00:00.000 (03/27/2007)
GP Dataset:	H11623_AHB_DtoN1_pydro.txt
GP No.:	13
Charts Affected:	11377_1, 11378_6, 11376_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

A pile with sign was located during survey operations. The submitted piles delineate the boundaries of shellfishing limits for the area established by the Alabama Marine Resources Division. The pile is a wooden post baring 8 feet above MLLW with a sign attached. The ppile also contains a sign with the number 27 on it.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11623_AHB_DtoN1_pydro.txt	13	0.00	000.0	Primary

Hydrographer Recommendations

Chart feature as a beacon (bn) at the surveyed location.

Cartographically-Rounded Depth (Affected Charts):

-9ft (11377_1, 11378_6, 11376_1)

-1 ½fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

Geo object 1:	Beacon, special purpose/general (BCNSPP)
Attributes:	CATSPM - 27:general warning mark
	CONRAD - 1:radar conspicuous
	HEIGHT ~~-2.65~~ ***-2.260*** m
	INFORM - Beacon serves as a marker defining or delineating prohibited shrimping area
	SORDAT - 20070327

SORIND - US,US,surve,H11623

STATUS - 1:permanent

VERDAT - ~~12:Mean lower low water~~ ***16-MHW***

1.14) Dton 1.14

DANGER TO NAVIGATION

Survey Summary

Survey Position: 030° 18' 21.370" N, 88° 07' 02.750" W

Least Depth: ~~-2.65~~ ***-2.260*** m

Timestamp: 2007-086.00:00:00.000 (03/27/2007)

GP Dataset: H11623_AHB_DtoN1_pydro.txt

GP No.: 14

Charts Affected: 11377_1, 11378_6, 11376_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

A pile with sign was located during survey operations. The submitted piles delineate the boundaries of shellfishing limits for the area established by the Alabama Marine Resources Division. The pile is a wooden post baring 8 feet above MLLW with a sign attached.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11623_AHB_DtoN1_pydro.txt	14	0.00	000.0	Primary

Hydrographer Recommendations

Chart feature as a beacon (bn) at the surveyed location.

Cartographically-Rounded Depth (Affected Charts):

-9ft (11377_1, 11378_6, 11376_1)

-1 ½fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

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

Attributes: CATSPM - 27:general warning mark

CONRAD - 1:radar conspicuous

HEIGHT ~~-2.65~~ ***-2.260*** m

INFORM - Beacon serves as a marker defining or delineating prohibited shrimping area

SORDAT - 20070327

SORIND - US,US,surve,H11623

STATUS - 1:permanent

VERDAT - ~~12:Mean lower low water~~ ***16-MHW***

1.15) Dton 1.15

DANGER TO NAVIGATION

Survey Summary

Survey Position: 030° 18' 08.550" N, 88° 07' 02.520" W

Least Depth: ~~-2.96~~ ***-2.640*** m

Timestamp: 2007-086.00:00:00.000 (03/27/2007)

GP Dataset: H11623_AHB_DtoN1_pydro.txt

GP No.: 15

Charts Affected: 11377_1, 11378_6, 11376_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

A pile with sign was located during survey operations. The submitted piles delineate the boundaries of shellfishing limits for the area established by the Alabama Marine Resources Division. The pile is a wooden post baring 9 feet above MLLW with a sign attached.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11623_AHB_DtoN1_pydro.txt	15	0.00	000.0	Primary

Hydrographer Recommendations

Chart feature as a beacon (bn) at the surveyed location.

Cartographically-Rounded Depth (Affected Charts):

-10ft (11377_1, 11378_6, 11376_1)

-1 ½fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

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

Attributes: CATSPM - 27:general warning mark

CONRAD - 1:radar conspicuous

HEIGHT - ~~2.96~~ ***-2.640*** m

INFORM - Beacon serves as a marker defining or delineating prohibited shrimping area

SORDAT - 20070327

SORIND - US,US,surve,H11623

STATUS - 1:permanent

VERDAT - ~~12:Mean lower low water~~ ***16 MHW***

Feature Images

IMG_15.jpg IMG_16.jpg

Figure 1.15.1

1.16) Dton 1.16

DANGER TO NAVIGATION

Survey Summary

Survey Position: 030° 17' 58.030" N, 88° 07' 02.360" W

Least Depth: ~~-2.65~~ ***-2.260*** m

Timestamp: 2007-086.00:00:00.000 (03/27/2007)

GP Dataset: H11623_AHB_DtoN1_pydro.txt

GP No.: 16

Charts Affected: 11377_1, 11378_6, 11376_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

A pile with sign was located during survey operations. The submitted piles delineate the boundaries of shellfishing limits for the area established by the Alabama Marine Resources Division. The pile is a wooden post baring 8 feet above MLLW with a sign attached.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11623_AHB_DtoN1_pydro.txt	16	0.00	000.0	Primary

Hydrographer Recommendations

Chart feature as a beacon (bn) at the surveyed location.

Cartographically-Rounded Depth (Affected Charts):

-9ft (11377_1, 11378_6, 11376_1)

-1 ½fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

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

Attributes: BCNSHP - 5:pile beacon

CATSPM - 27:general warning mark

CONRAD - 1:radar conspicuous

HEIGHT ~~-2.65~~ ***-2.260*** m

INFORM - Beacon serves as a marker defining or delineating prohibited shrimping area

SORDAT - 20070327

SORIND - US,US,surve,H11623

STATUS - 1:permanent

VERDAT - ~~12:Mean lower low water~~

Registry Number: H11623

State: Alabama

Locality: Mobile Bay

Sub-locality: Mobile Point to Bon Secour River

Project Number: OPR-S-J977-KR-DEA

Survey Date: 03/27/2007

Charts Affected

Number	Version	Date	Scale
11380	1st Ed.	10/01/2005	1:20000
11377	5th Ed.	06/01/2003	1:40000
11376	51st Ed.	02/01/2006	1:80000
1115A	41st Ed.	03/01/2005	1:456394
11360	41st Ed.	03/01/2005	1:456394
11006	32nd Ed.	08/01/2005	1:875000
411	51st Ed.	12/01/2006	1:2160000

Features

No.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	Dton 2.1	GP	2.~~62~~ ***34***m	030° 24' 43.670" N	88° 04' 15.100" W	---
1.2	Dton 2.2	GP	2.~~62~~***26*** m	030° 24' 38.330"	88° 04' 08.870" W	---
1.3	Dton 2.3	GP	-2.~~62~~ 26m	030° 24' 31.880"	88° 03' 59.590" W	---
1.4	Dton 2.4	GP	-2.~~77~~***44*** m	030° 24' 38.370	88° 03' 53.440" W	---
1.5	Dton 2.5	GP	-3.~~53~~***04***m	30° 24' 50.870" N	88° 04' 16.420" W	---
1.6	Dton 2.6	GP	-2.~~44~~***04*** m	030° 24' 52.220" N	88° 04' 08.700" W	---
1.7	Dton 2.7	GP	-2.~~74~~ ***34*** m	030° 24' 52.110"	88° 04' 01.900" W	---
1.8	Dton 2.8	GP	-2.~~74~~ ***34*** m	030° 24' 51.410" N	88° 03' 54.840" W	---

1.1) Dton 2.1

DANGER TO NAVIGATION

Survey Summary

Survey Position: 030° 24' 43.670" N, 88° 04' 15.100" W

Least Depth: ~~-2.62~~ ***-2.260*** m

Timestamp: 2007-086.00:00:00.000 (03/27/2007)

GP Dataset: H11623_AHB_DtoN2_pydro.txt

GP No.: 1

Charts Affected: 11380_1, 11377_1, 11376_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

A pile was located during survey operations. The submitted piles delineate an artificial shellfishing reef area established by the Alabama Marine Resources Division. The pile is a wooden post baring 8 feet above MLLW.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11623_AHB_DtoN2_pydro.txt	1	0.00	000.0	Primary

Hydrographer Recommendations

Chart feature as a pile at the surveyed location.

Cartographically-Rounded Depth (Affected Charts):

-9ft (11380_1, 11377_1, 11376_1)

-1 ¼fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

Geo object 1: Pile (PILPNT)

Attributes: CATPLE - 3:post

CONVIS - 1:visual conspicuous

HEIGHT ~~-2.62~~ ***-2.260*** m

INFORM - Pile serves as a marker defining or delineating artificial shellfish reef area

SORDAT - 2007327

SORIND - US,US,surve,H11623 ***VERDAT: 16 MHW***

Office Notes

Danger submission was preliminary. Data has been submitted and verified by AHB. The feature is currently portrayed on raster chart #11377_1 and ENC US5AL13M . AHB recommends to be retained as currently charted.

Feature Images

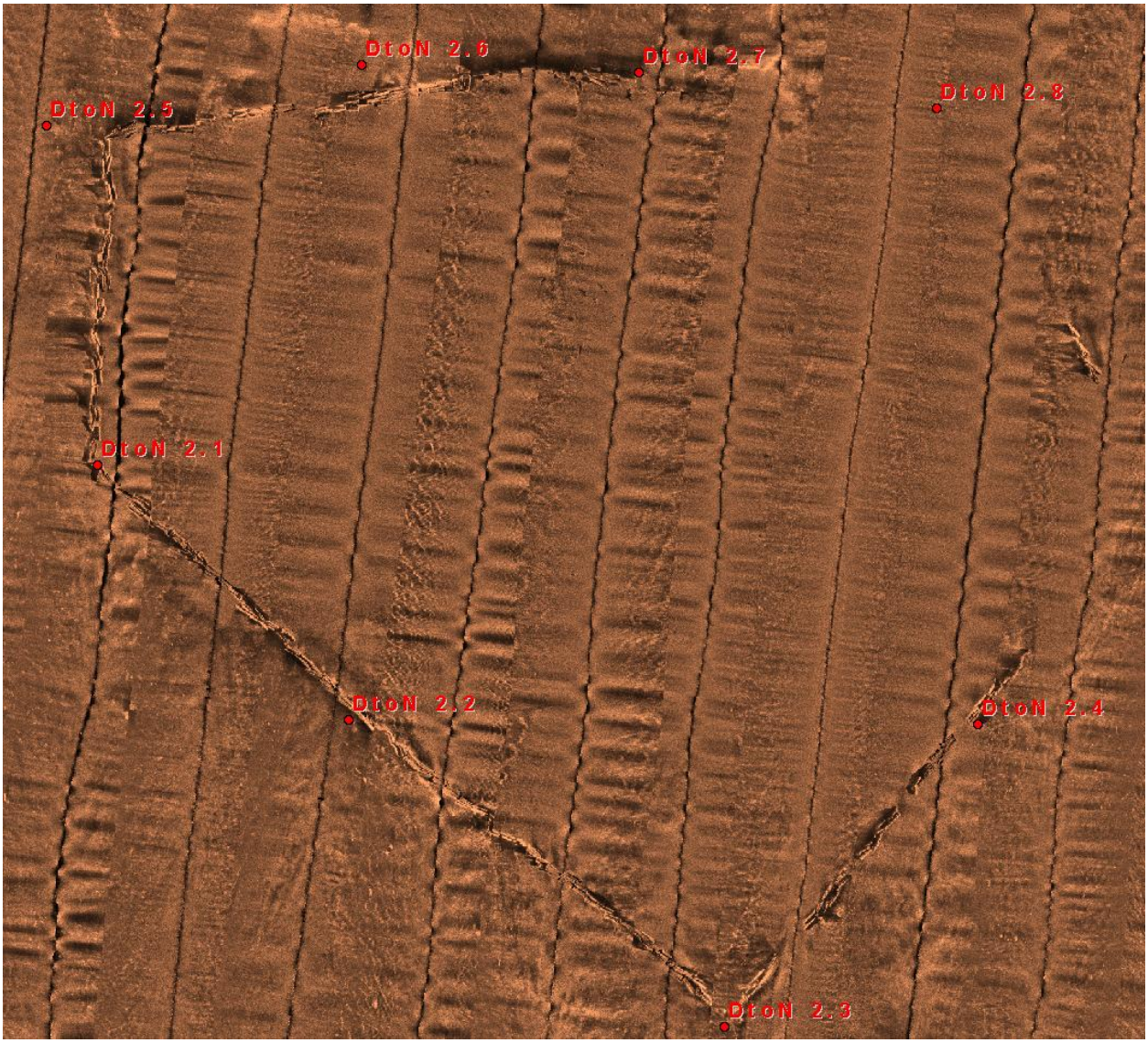


Figure 1.1.1

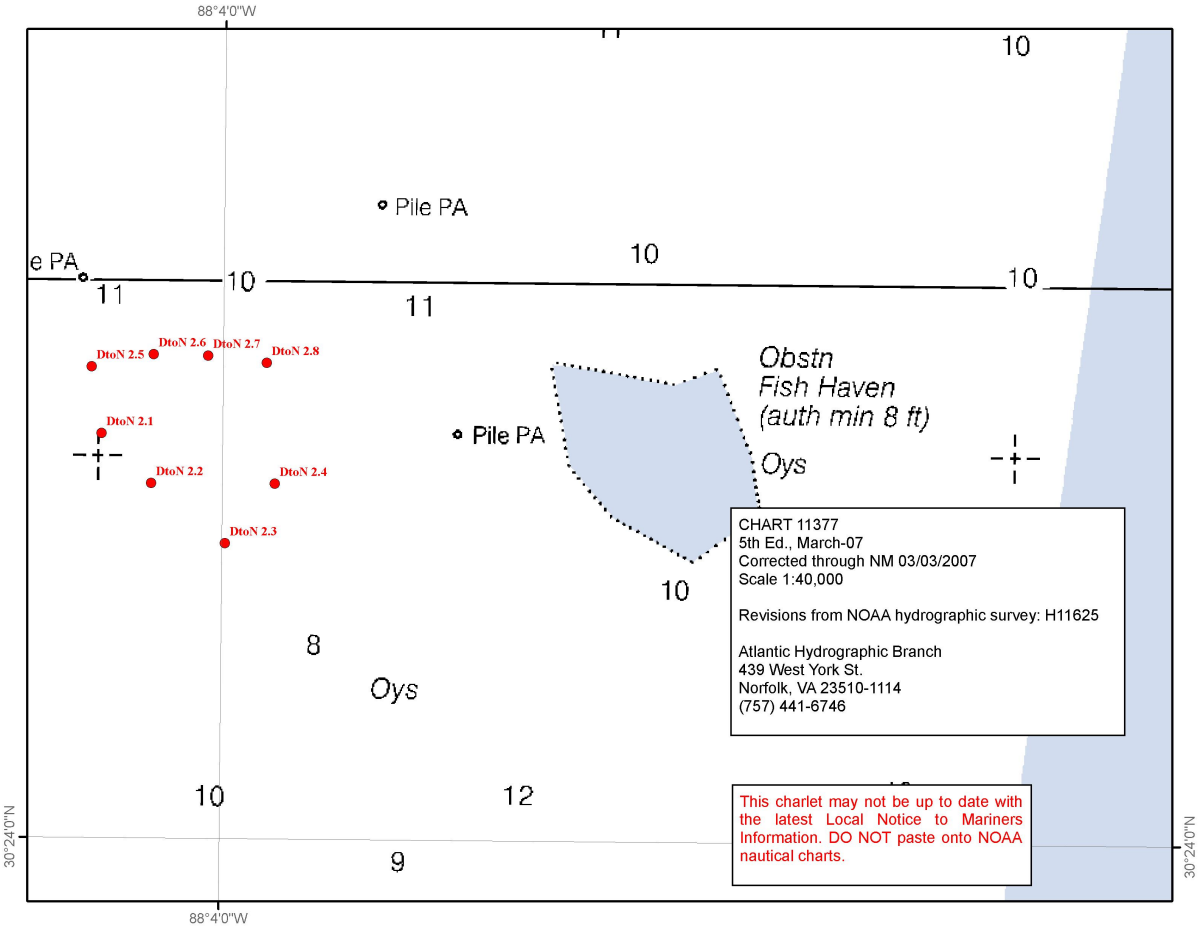

88°4'0"W
10
Pile PA
e PA
10
10
11
11
DtoN 2.5
DtoN 2.6
DtoN 2.7
DtoN 2.8
Obstn
Fish Haven
(auth min 8 ft)
DtoN 2.1
Pile PA
Oys
DtoN 2.2
DtoN 2.4
DtoN 2.3
10
CHART 11377
5th Ed., March-07
Corrected through NM 03/03/2007
Scale 1:40,000
Revisions from NOAA hydrographic survey: H11625
Atlantic Hydrographic Branch
439 West York St.
Norfolk, VA 23510-1114
(757) 441-6746
8
Oys
10
12
This charlet may not be up to date with the latest Local Notice to Mariners Information. DO NOT paste onto NOAA nautical charts.
9
30°24'0"N
30°24'0"N
88°4'0"W

Figure 1.1.2


Artificial Fishing Reef
DANGER
CAUTION - UNDERWATER
OBSTRUCTIONS
Alabama Marine
Resources Division
Dept. of Conservation and Natural Resources

Figure 1.1.3

1.2) Dton 2.2

DANGER TO NAVIGATION

Survey Summary

Survey Position: 030° 24' 38.330" N, 88° 04' 08.870" W

Least Depth: ~~-2.62~~ ***-2.260*** m

Timestamp: 2007-086.00:00:00.000 (03/27/2007)

GP Dataset: H11623_AHB_DtoN2_pydro.txt

GP No.: 2

Charts Affected: 11380_1, 11377_1, 11376_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

A pile with sign was located during survey operations. The submitted piles delineate an artificial shellfishing reef area established by the Alabama Marine Resources Division. The pile is a wooden post baring 8 feet above MLLW.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11623_AHB_DtoN2_pydro.txt	2	0.00	000.0	Primary

Hydrographer Recommendations

Chart feature as a pile at the surveyed location.

Cartographically-Rounded Depth (Affected Charts):

-9ft (11380_1, 11377_1, 11376_1)

-1 ¼fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

Geo object 1: Pile (PILPNT)

Attributes: CATPLE - 3:post

CONVIS - 1:visual conspicuous

HEIGHT - ~~2.62~~ ***-2.260*** m

INFORM - Pile serves as a marker defining or delineating artificial shellfish reef area

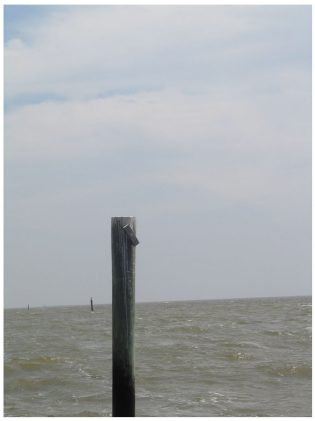
SORDAT - 20070327

SORIND - US,US,surve,H11623 ***VERDAT: 16 MHW***

Office Notes

Danger submission was preliminary. Data has been submitted and verified by AHB. The feature is currently portrayed on raster chart #11377_1 and ENC US5AL13M . AHB recommends to be retained as currently charted.

Feature Images



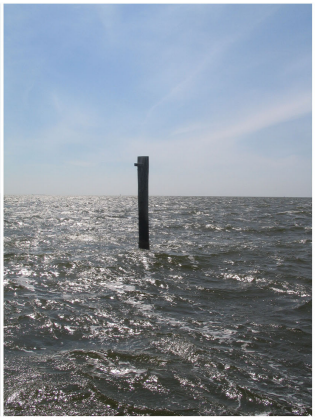
IMG_1.jpg

IMG_2.jpg

IMG_3.jpg

IMG_4.jpg

IMG_5.jpg



IMG_6.jpg

IMG_7.jpg

IMG_8.jpg

Figure 1.2.1

1.3) Dton 2.3

DANGER TO NAVIGATION

Survey Summary

Survey Position: 030° 24' 31.880" N, 88° 03' 59.590" W

Least Depth: ~~-2.62~~ ***-2.260*** m

Timestamp: 2007-086.00:00:00.000 (03/27/2007)

GP Dataset: H11623_AHB_DtoN2_pydro.txt

GP No.: 3

Charts Affected: 11380_1, 11377_1, 11376_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

A pile with sign was located during survey operations. The submitted piles delineate an artificial shellfishing reef area established by the Alabama Marine Resources Division. The pile is a wooden post baring 8 feet above MLLW.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11623_AHB_DtoN2_pydro.txt	3	0.00	000.0	Primary

Hydrographer Recommendations

Chart feature as a pile at the surveyed location.

Cartographically-Rounded Depth (Affected Charts):

-9ft (11380_1, 11377_1, 11376_1)

-1 ¼fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

Geo object 1: Pile (PILPNT)

Attributes: CATPLE - 3:post

CONVIS - 1:visual conspicuous

HEIGHT ~~-2.62~~ ***-2.260*** m

INFORM - Pile serves as a marker defining or delineating artificial shellfish reef area

SORDAT - 20070327

SORIND - US,US,surve,H11623 ***VERDAT: 16 MHW***

Office Notes

Danger submission was preliminary. Data has been submitted and verified by AHB. The feature is currently portrayed on raster chart #11377_1 and ENC US5AL13M . AHB recommends to be retained as currently charted.

1.4) Dton 2.4

DANGER TO NAVIGATION

Survey Summary

Survey Position:	030° 24' 38.370" N, 88° 03' 53.440" W
Least Depth:	~~-2.77~~ ***-2.440*** m
Timestamp:	2007-086.00:00:00.000 (03/27/2007)
GP Dataset:	H11623_AHB_DtoN2_pydro.txt
GP No.:	4
Charts Affected:	11380_1, 11377_1, 11376_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

A pile with sign was located during survey operations. The submitted piles delineate an artificial shellfishing reef area established by the Alabama Marine Resources Division. The pile is a wooden post baring 9 feet above MLLW with a sign attached designating a shellfish reef.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11623_AHB_DtoN2_pydro.txt	4	0.00	000.0	Primary

Hydrographer Recommendations

Chart feature as a beacon (bn) at the surveyed location.

Cartographically-Rounded Depth (Affected Charts):

-9ft (11380_1, 11377_1, 11376_1)

-1 ½fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

Geo object 1:	Beacon, special purpose/general (BCNSPP)
Attributes:	CATSPM - 56:artificial reef mark
	CONRAD - 1:radar conspicuous
	HEIGHT - ~~2.77~~ -2.440 m
	INFORM - Beacon serves as a marker defining or delineating artificial shellfish reef area
	SORDAT - 20070327

SORIND - US,US,surve,H11623

STATUS - 1:permanent

VERDAT - ~~12:Mean lower low water~~ ***16- MHW***

Office Notes

Danger submission was preliminary. Data has been submitted and verified by AHB. The feature is currently portrayed on raster chart #11377_1 and ENC US5AL13M . AHB recommends to be retained as currently charted.

1.5) Dton 2.5

DANGER TO NAVIGATION

Survey Summary

Survey Position: 030° 24' 50.870" N, 88° 04' 16.420" W

Least Depth: ~~-3.53~~ ***-3.040*** m

Timestamp: 2007-086.00:00:00.000 (03/27/2007)

GP Dataset: H11623_AHB_DtoN2_pydro.txt

GP No.: 5

Charts Affected: 11380_1, 11377_1, 11376_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

A pile with sign was located during survey operations. The submitted piles delineate an artificial shellfishing reef area established by the Alabama Marine Resources Division. The pile is a wooden post baring 11 feet above MLLW.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11623_AHB_DtoN2_pydro.txt	5	0.00	000.0	Primary

Hydrographer Recommendations

Chart feature as a pile at the surveyed location.

Cartographically-Rounded Depth (Affected Charts):

-12ft (11380_1, 11377_1, 11376_1)

-1 ¾fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

Geo object 1: Pile (PILPNT)

Attributes: CATPLE - 3:post

CONVIS - 1:visual conspicuous

HEIGHT ~~-3.53~~ ***-3.040*** m

INFORM - Pile serves as a marker defining or delineating artificial shellfish reef area

SORDAT - 20070327

SORIND - US,US,surve,H11623 ***VERDAT: 16- MHW***

Office Notes

Danger submission was preliminary. Data has been submitted and verified by AHB. The feature is currently portrayed on raster chart #11377_1 and ENC US5AL13M . AHB recommends to be retained as currently charted.

1.6) Dton 2.6

DANGER TO NAVIGATION

Survey Summary

Survey Position: 030° 24' 52.220" N, 88° 04' 08.700" W

Least Depth: ~~-2.44~~ ***-2.040*** m

Timestamp: 2007-086.00:00:00.000 (03/27/2007)

GP Dataset: H11623_AHB_DtoN2_pydro.txt

GP No.: 6

Charts Affected: 11380_1, 11377_1, 11376_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

A pile with sign was located during survey operations. The submitted piles delineate an artificial shellfishing reef area established by the Alabama Marine Resources Division. The pile is a wooden post baring 8 feet above MLLW.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11623_AHB_DtoN2_pydro.txt	6	0.00	000.0	Primary

Hydrographer Recommendations

Chart feature as a pile at the surveyed location.

Cartographically-Rounded Depth (Affected Charts):

-8ft (11380_1, 11377_1, 11376_1)

-1 ¼fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

Geo object 1: Pile (PILPNT)

Attributes: CATPLE - 3:post

CONVIS - 1:visual conspicuous

HEIGHT - ~~2.44~~ ***-2.040*** m

INFORM - Pile serves as a marker defining or delineating artificial shellfish reef area

SORDAT - 20070327

SORIND - US,US,surve,H11623 ***VERDAT: 16- MHW***

Office Notes

Danger submission was preliminary. Data has been submitted and verified by AHB. The feature is currently portrayed on raster chart #11377_1 and ENC US5AL13M . AHB recommends to be retained as currently charted.

1.7) Dton 2.7

DANGER TO NAVIGATION

Survey Summary

Survey Position: 030° 24' 52.110" N, 88° 04' 01.900" W

Least Depth: ~~-2.74~~ ***-2.340*** m

Timestamp: 2007-086.00:00:00.000 (03/27/2007)

GP Dataset: H11623_AHB_DtoN2_pydro.txt

GP No.: 7

Charts Affected: 11380_1, 11377_1, 11376_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

A pile with sign was located during survey operations. The submitted piles delineate an artificial shellfishing reef area established by the Alabama Marine Resources Division. The pile is a wooden post baring 9 feet above MLLW.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11623_AHB_DtoN2_pydro.txt	7	0.00	000.0	Primary

Hydrographer Recommendations

Chart feature as a beacon (bn) at the surveyed location.

Cartographically-Rounded Depth (Affected Charts):

-9ft (11380_1, 11377_1, 11376_1)

-1 ½fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

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

Attributes: CATSPM - 56:artificial reef mark

CONRAD - 1:radar conspicuous

HEIGHT ~~-2.74~~ ***-2.340*** m

INFORM - Beacon serves as a marker defining or delineating artificial shellfish reef area

SORDAT - 20070327

SORIND - US,US,surve,H11623

STATUS - 1:permanent

VERDAT - ~~12:Mean lower low water~~ ***16- MHW***

Office Notes

Danger submission was preliminary. Data has been submitted and verified by AHB. The feature is currently portrayed on raster chart #11377_1 and ENC US5AL13M . AHB recommends to be retained as currently charted.

Feature Images

IMG_1.jpg IMG_2.jpg IMG_3.jpg IMG_4.jpg

IMG_5.jpg IMG_6.jpg IMG_7.jpg IMG_8.jpg

Figure 1.7.1

1.8) Dton 2.8

DANGER TO NAVIGATION

Survey Summary

Survey Position: 030° 24' 51.410" N, 88° 03' 54.840" W

Least Depth: ~~-2.74~~ ***-2.340*** m

Timestamp: 2007-086.00:00:00.000 (03/27/2007)

GP Dataset: H11623_AHB_DtoN2_pydro.txt

GP No.: 8

Charts Affected: 11380_1, 11377_1, 11376_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

A pile with sign was located during survey operations. The submitted piles delineate an artificial shellfishing reef area established by the Alabama Marine Resources Division. The pile is a wooden post baring 9 feet above MLLW.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11623_AHB_DtoN2_pydro.txt	8	0.00	000.0	Primary

Hydrographer Recommendations

Chart feature as a pile at the surveyed location.

Cartographically-Rounded Depth (Affected Charts):

-9ft (11380_1, 11377_1, 11376_1)

-1 ½fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

Geo object 1: Pile (PILPNT)

Attributes: CATPLE - 3:post

CONVIS - 1:visual conspicuous

HEIGHT ~~-2.74~~ ***-2.340*** m

INFORM - Pile serves as a marker defining or delineating artificial shellfish reef area

SORDAT - 20070327

SORIND - US,US,surve,H11623 ***VERDAT: 16- MHW***

Office Notes

Danger submission was preliminary. Data has been submitted and verified by AHB. The feature is currently portrayed on raster chart #11377_1 and ENC US5AL13M . AHB recommends to be retained as currently charted.

Registry Number: H11623

State: Alabama

Locality: Mobile Bay

Sub-locality: Fowl River Point to Aux Herons

Project Number: OPR-S-J977-KR-DEA

Survey Date: 03/25/2007

Charts Affected

Number	Version	Date	Scale
11377	5th Ed.	06/01/2003	1:40000
11378	34th Ed.	02/01/2006	1:40000
11376	51st Ed.	02/01/2006	1:80000
1115A	41st Ed.	03/01/2005	1:456394
11360	41st Ed.	03/01/2005	1:456394
11006	32nd Ed.	08/01/2005	1:875000
411	51st Ed.	12/01/2006	1:2160000

Features

No.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	Dton 4	GP	2.6***94*** m	030° 20' 23.***353***" N	88° 05' 45.2***92***" W	---
1.2	Dton 5	GP	2.***919*** m	030° 20' 28.1***02***" N	88° 05' 25.***769***" W	---
1.3	Dton 6	GP	2.41 m	030° 19' 54.550" N	88° 06' 08.920" W	---
1.4	Dton 7	GP	1.***914*** m	030° 19' 05.6***6***0" N	88° 06' 06.***630***" W	---
1.5	Dton 8	GP	1.68 m	030° 18' 38.310" N	88° 06' 00.730" W	---

1.1) Dton 4

DANGER TO NAVIGATION

Survey Summary

Survey Position: 030° 20' 23.~~170~~*353*" N, 88° 05' 45.2~~00~~*92*" W

Least Depth: 2.6~~2~~*94* m

Timestamp: 2007-084.00:00:00.000 (03/25/2007)

GP Dataset: H11623_AHB_DtoN3-8_pydro.txt

GP No.: 2

Charts Affected: 11377_1, 11378_6, 11376_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

A submerged obstruction was found during hydrographic survey operations. The submerged obstruction is at a depth of 8.6 ft below MLLW. Depths are preliminary and are based on side scan shadow lengths unless noted otherwise.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11623_AHB_DtoN3-8_pydro.txt	2	0.00	000.0	Primary

Hydrographer Recommendations

Chart feature as a dangerous submergered obstruction (reported) with a depth of 8 feet below MLLW.

Cartographically-Rounded Depth (Affected Charts):

~~8~~*9*ft (11377_1, 11378_6, 11376_1)

1 ¼fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: QUASOU - ~~8,9:value reported (not surveyed),value reported (not confirmed)~~ ***6: Least Depth Known***

SORDAT - 20070325

SORIND - US,US,***nsurf***,H11623

TECSOU - 2:found by side scan sonar; ***3: multibeam***

VALSOU - 2.6~~2~~*694* m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

Danger submission was preliminary. Data has been submitted and verified by AHB. The feature is currently portrayed on raster chart #11377_1 and ENC US5AL13M . The verified depth is 2.694m (8.838-ft); AHB recommends to revise the depth value of the obstruction to 9-ft. AHB recommends to be maintain the charted position with depth revision only. Recommend delete chart notation (8ft rep) as feature has been verified.

Feature Images

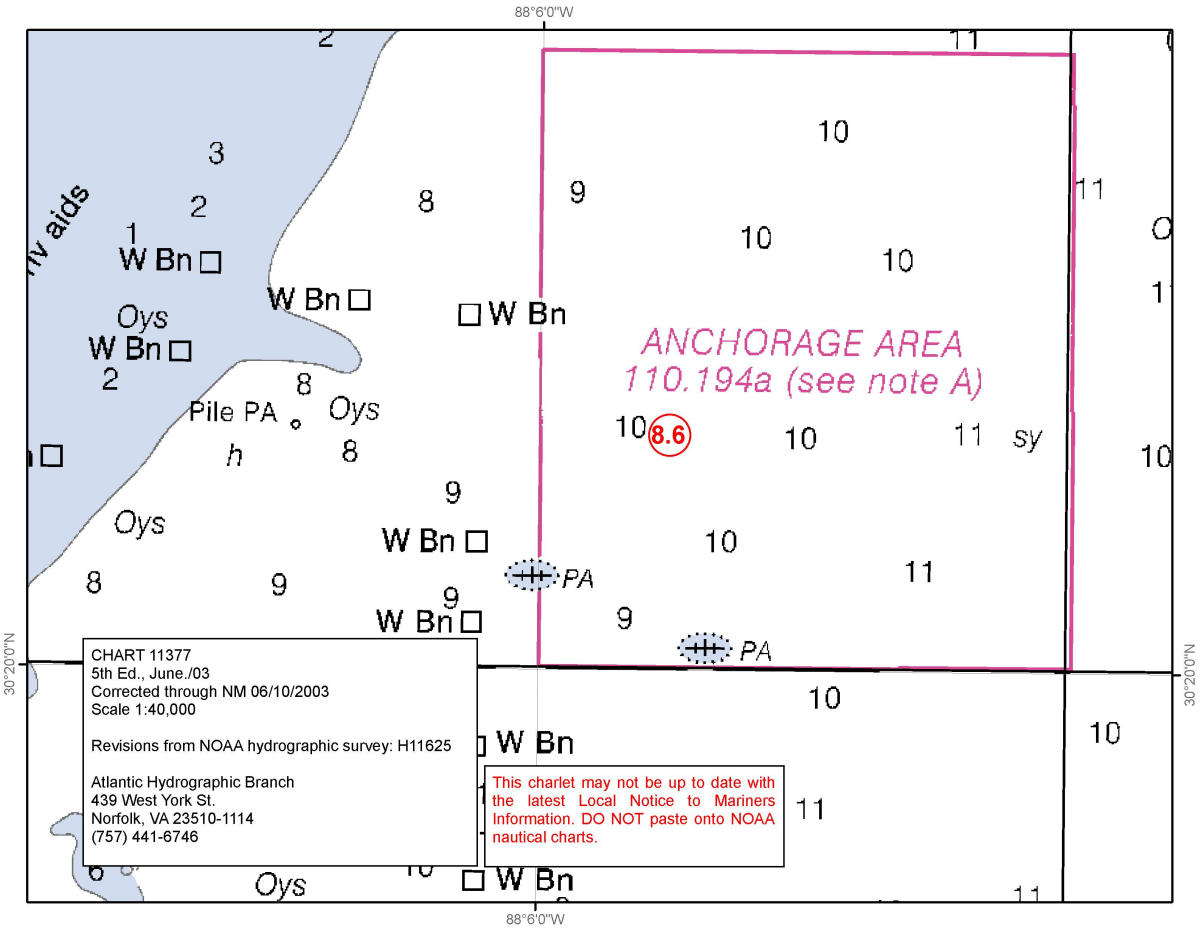


Figure 1.1.1

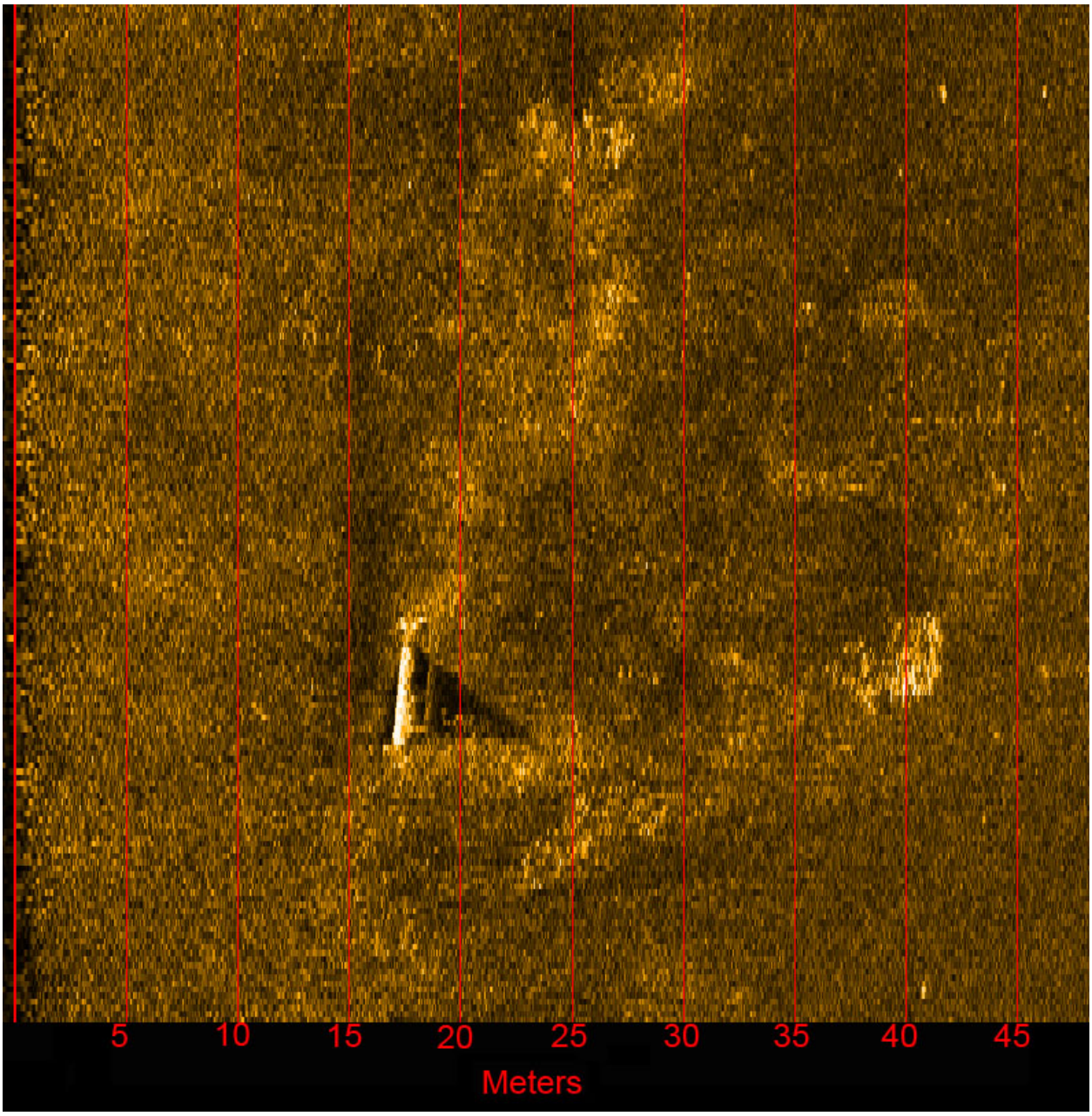


Figure 1.1.2

1.2) Dton 5

DANGER TO NAVIGATION

Survey Summary

Survey Position: 030° 20' 28.17~~0~~***02***" N, 88° 05' 25.~~670~~***769***" W

Least Depth: 2.~~62~~***919*** m

Timestamp: 2007-084.00:00:00.000 (03/25/2007)

GP Dataset: H11623_AHB_DtoN3-8_pydro.txt

GP No.: 3

Charts Affected: 11377_1, 11378_6, 11376_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

A submerged obstruction was found during hydrographic survey operations. The submerged obstruction is at a depth of 8.6 ft below MLLW. Depths are preliminary and are based on side scan shadow lengths unless noted otherwise.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11623_AHB_DtoN3-8_pydro.txt	3	0.00	000.0	Primary

Hydrographer Recommendations

Chart feature as a dangerous submergered obstruction (reported) with a depth of 8 feet below MLLW.

Cartographically-Rounded Depth (Affected Charts):

~~8~~***9***ft (11377_1, 11378_6, 11376_1)

1 ¼fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: QUASOU - ~~8,9:value reported (not surveyed),value reported (not confirmed)~~***6: Least depth known.***

SORDAT - 20070325

SORIND - US,US,***nsurf,***H11623

TECSOU - 2:found by side scan sonar; ***3: multibeam***

VALSOU - 2.~~62~~ ***919***m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

Danger submission was preliminary. Data has been submitted and verified by AHB. The feature is currently portrayed on raster chart #11377_1 and ENC US5AL13M . The verified depth is 2.919m (9.576-ft); AHB recommends to revise the depth value of the obstruction to 9-ft. AHB recommends to be maintain the charted position with depth revision only. Recommend delete chart notation (8ft rep) as feature has been verified.

Feature Images

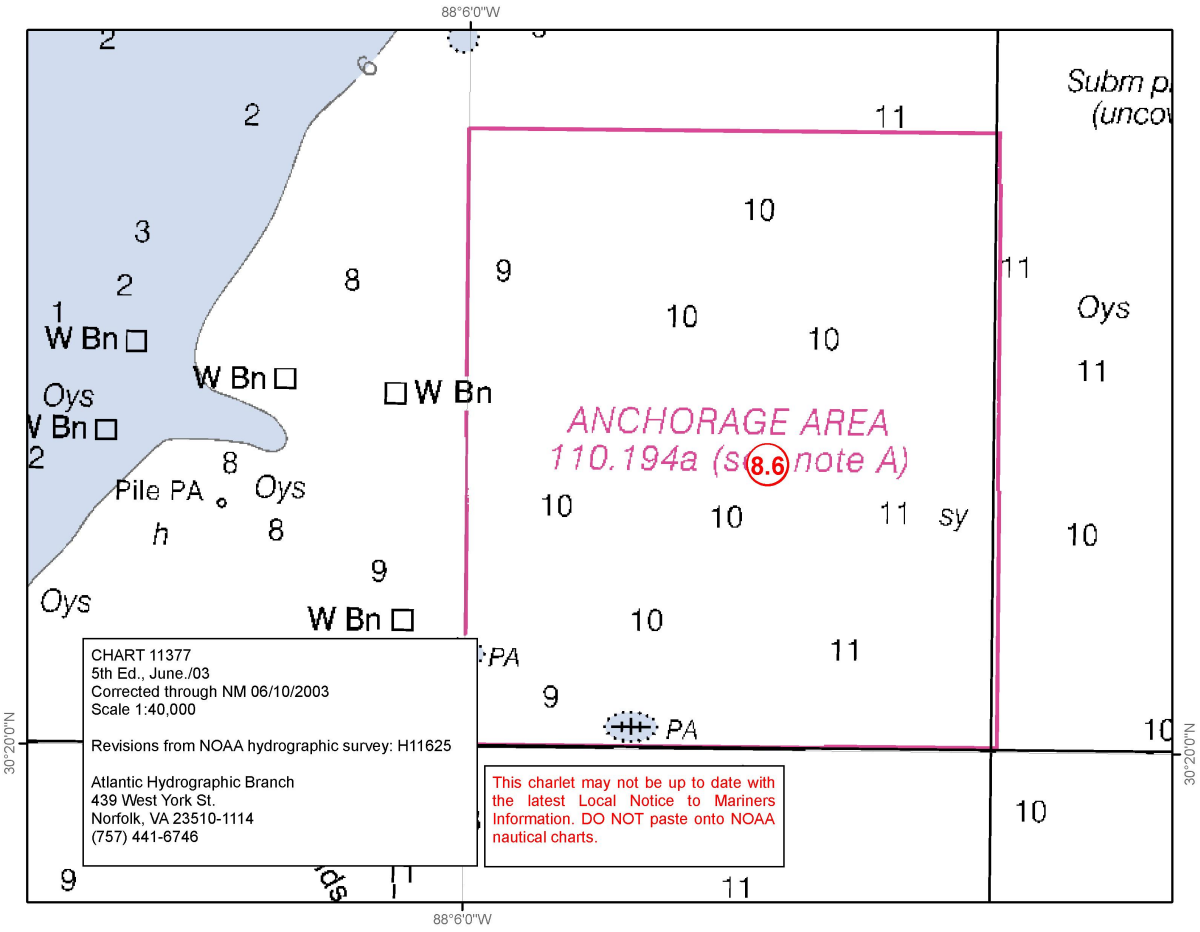


Figure 1.2.1

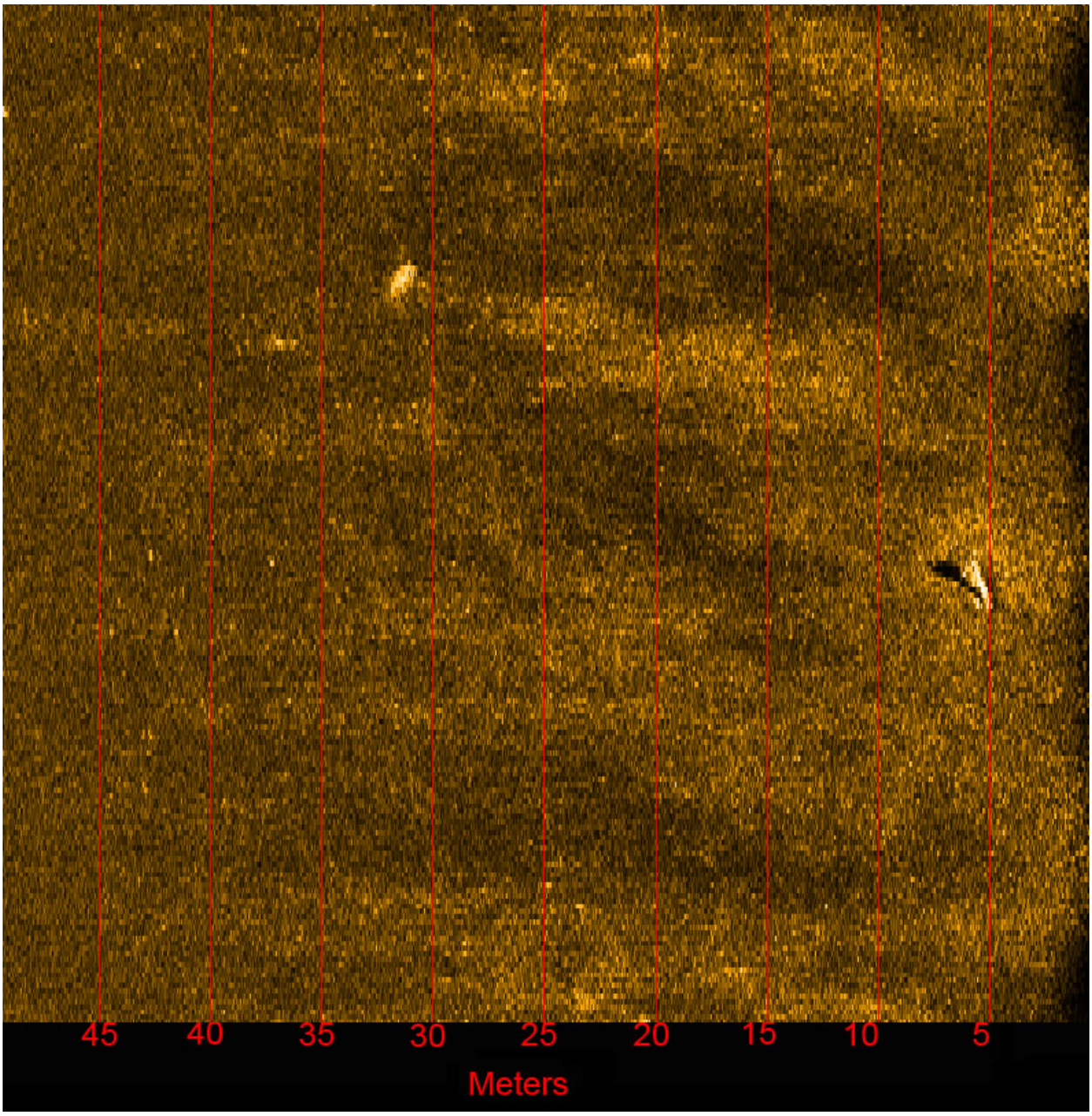


Figure 1.2.2

1.3) Dton 6

DANGER TO NAVIGATION

Survey Summary

Survey Position: 030° 19' 54.550" N, 88° 06' 08.920" W

Least Depth: 2.41 m

Timestamp: 2007-084.00:00:00.000 (03/25/2007)

GP Dataset: H11623_AHB_DtoN3-8_pydro.txt

GP No.: 4

Charts Affected: 11377_1, 11378_6, 11376_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

A submerged obstruction was found during hydrographic survey operations. The submerged obstruction is at a depth of 7.9 ft below MLLW. Depths are preliminary and are based on side scan shadow lengths unless noted otherwise.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11623_AHB_DtoN3-8_pydro.txt	4	0.00	000.0	Primary

Hydrographer Recommendations

Chart feature as a dangerous submergered obstruction (reported) with a depth of 8 feet below MLLW.

Cartographically-Rounded Depth (Affected Charts):

8ft (11377_1, 11378_6, 11376_1)

1 ¼fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: QUASOU - 8,9:value reported (not surveyed),value reported (not confirmed)

SORDAT - 20070325

SORIND - US,US,surve,H11623

TECSOU - 2:found by side scan sonar

VALSOU - 2.41 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

DtoN #6 submission was preliminary. The submitted bathy and 200% side scan sonar development data did not confirm the existence of the submitted DtoN 8-ft obstruction. AHB considers DtoN #6, 8-ft Obstruction as disproved. Recommend to delete the chart Obstruction (8 ft rep) from the current edition of the chart and ENC.

Feature Images

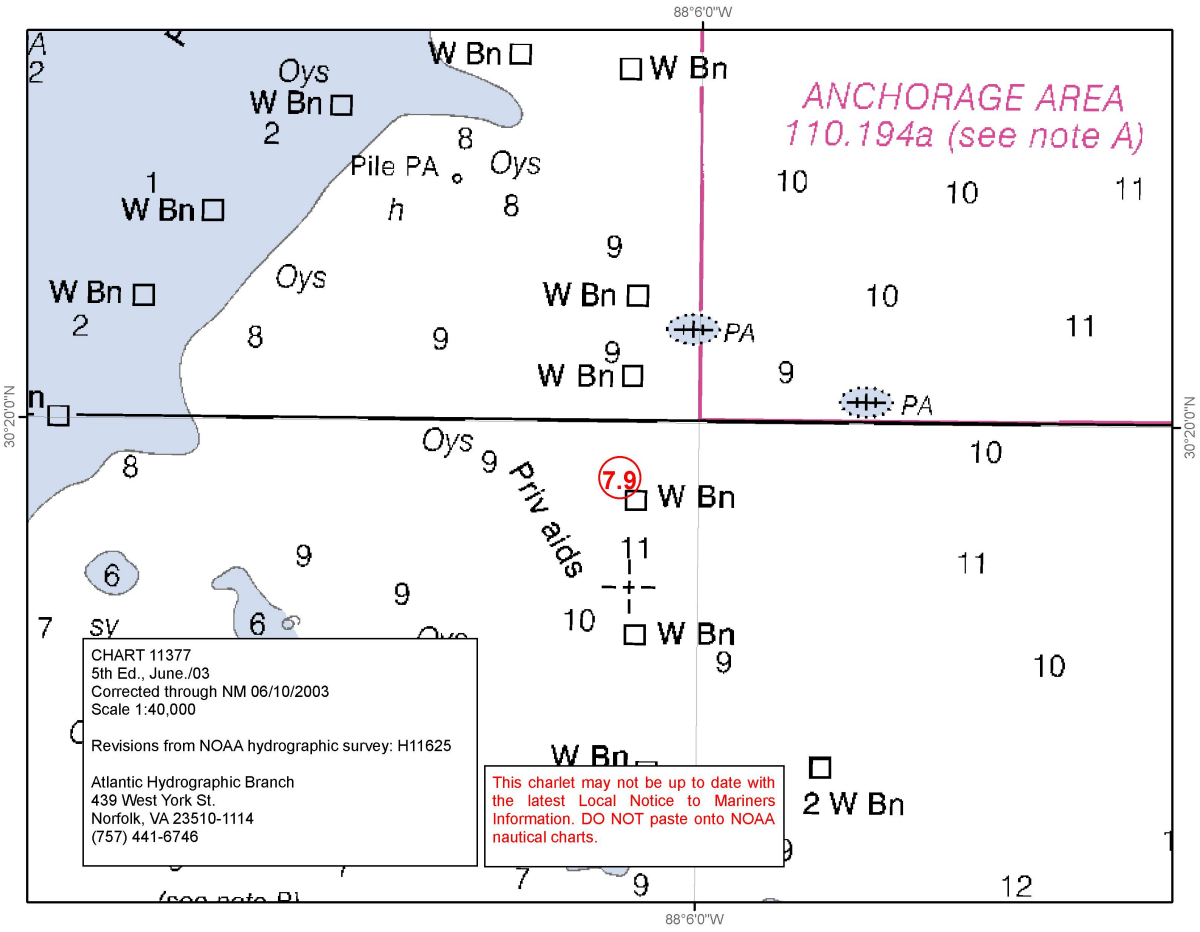


Figure 1.3.1

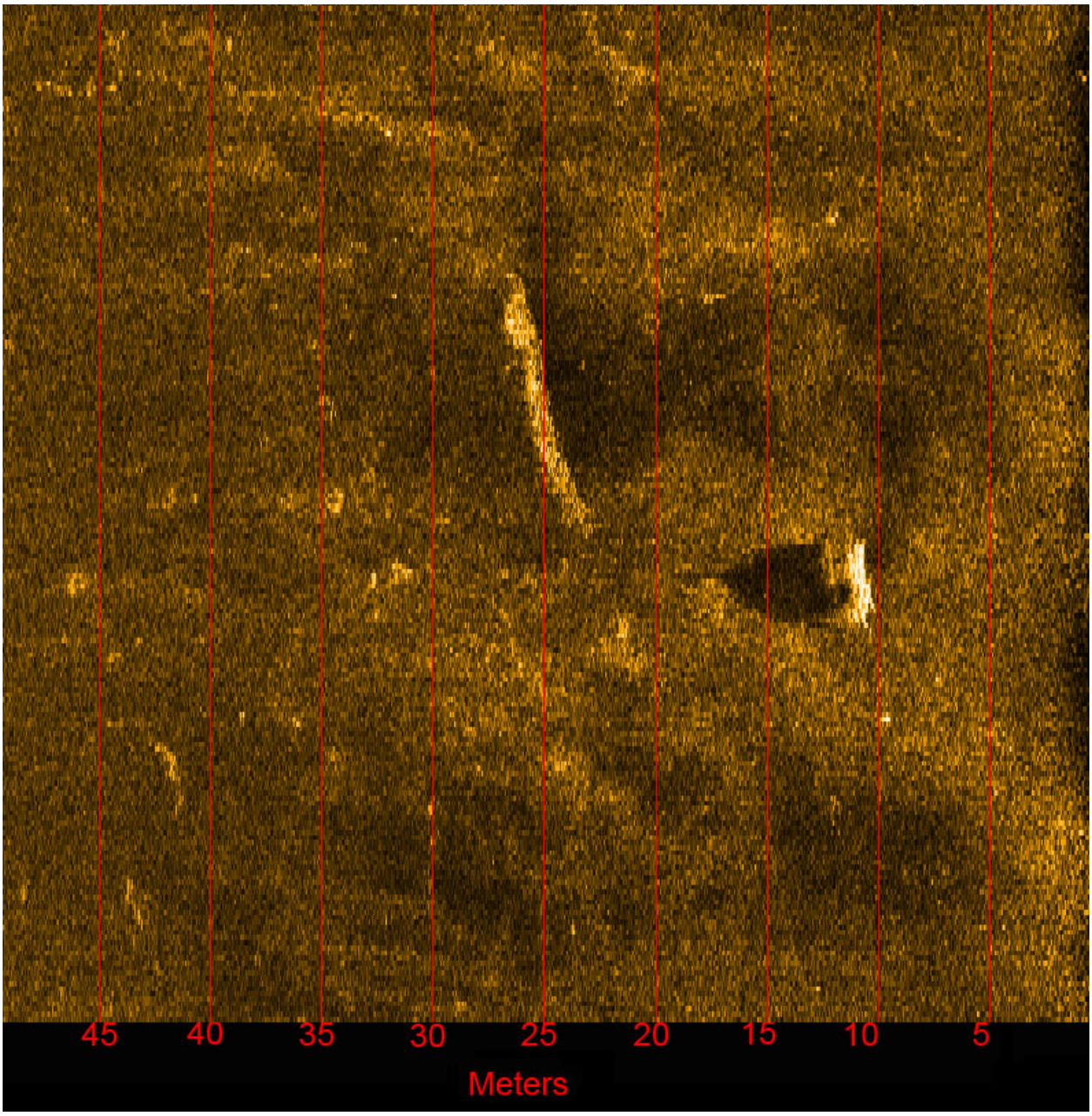


Figure 1.3.2

1.4) Dton 7

DANGER TO NAVIGATION

Survey Summary

Survey Position: 030° 19' 05.620" N, 88° 06' 06.700" W

Least Depth: ~~1.86~~ 1.914 m

Timestamp: 2007-084.00:00:00.000 (03/25/2007)

GP Dataset: H11623_AHB_DtoN3-8_pydro.txt

GP No.: 5

Charts Affected: 11377_1, 11378_6, 11376_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

A submerged obstruction was found during hydrographic survey operations. The submerged obstruction is at a depth of 6.1 ft below MLLW. Depths are preliminary and are based on side scan shadow lengths unless noted otherwise.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11623_AHB_DtoN3-8_pydro.txt	5	0.00	000.0	Primary

Hydrographer Recommendations

Chart feature as a dangerous submergered obstruction (reported) with a depth of 6 feet below MLLW.

Cartographically-Rounded Depth (Affected Charts):

6ft (11377_1, 11378_6, 11376_1)

1fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: QUASOU - ~~8,9:value reported (not surveyed),value reported (not confirmed)~~ ***6: Least Depth Known***

SORDAT - 20070325

SORIND - US,US,NUSRF,H11623

TECSOU - 2:found by side scan sonar; ***3:found by mulitbeam***

VALSOU - ~~1.86~~ ***1.914*** m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

Danger submission was preliminary. Data has been submitted and verified by AHB. Chart 6-ft Obstruction at the surveyed location in Latitude 30°19'05.62"N, Longitude 088°06'06.70"W. Delete chart notation "(6 ft rep)" as the feature has been verifed and is no longer considered as a reported feature.

Feature Images

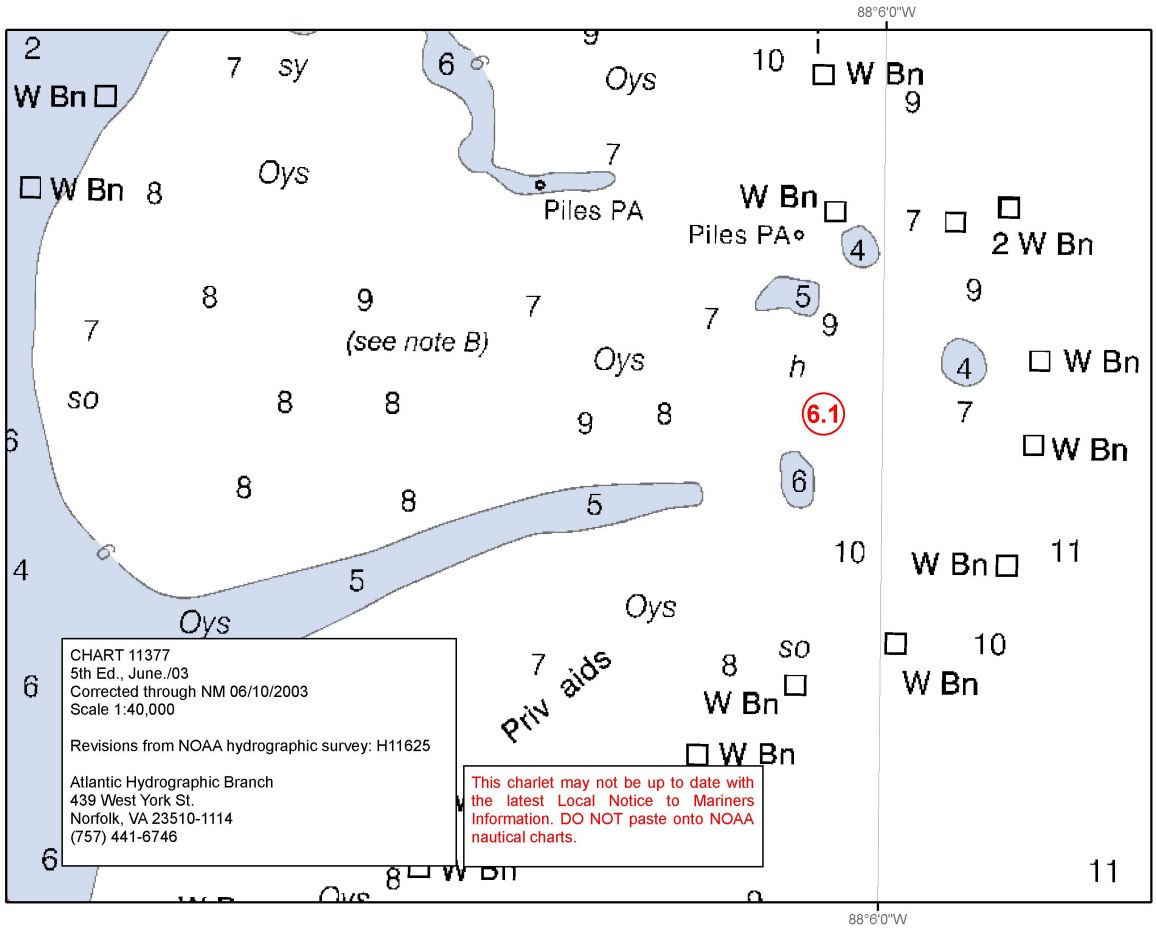


Figure 1.4.1

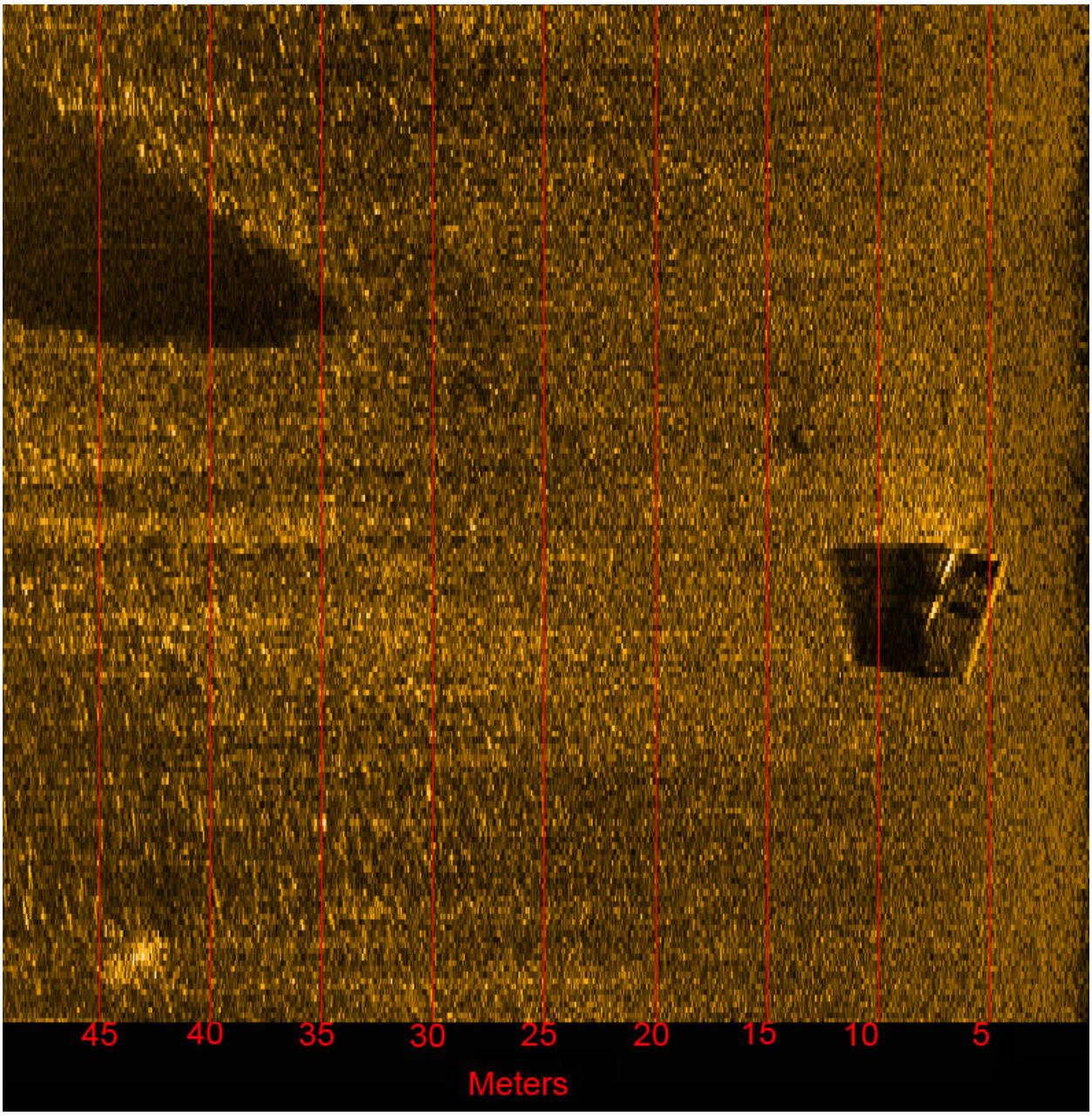


Figure 1.4.2

1.5) Dton 8

DANGER TO NAVIGATION

Survey Summary

Survey Position: 030° 18' 38.310" N, 88° 06' 00.730" W

Least Depth: 1.68 m

Timestamp: 2007-084.00:00:00.000 (03/25/2007)

GP Dataset: H11623_AHB_DtoN3-8_pydro.txt

GP No.: 6

Charts Affected: 11377_1, 11378_6, 11376_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

A submerged obstruction was found during hydrographic survey operations. The submerged obstruction is at a depth of 5.5 ft below MLLW. Depths are preliminary and are based on side scan shadow lengths unless noted otherwise.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11623_AHB_DtoN3-8_pydro.txt	6	0.00	000.0	Primary

Hydrographer Recommendations

Chart feature as a dangerous submergered obstruction (reported) with a depth of 5 feet below MLLW.

Cartographically-Rounded Depth (Affected Charts):

5ft (11377_1, 11378_6, 11376_1)

0 ¾fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: QUASOU - 8,9:value reported (not surveyed),value reported (not confirmed)

SORDAT - 20070325

SORIND - US,US,surve,H11623

TECSOU - 2:found by side scan sonar

VALSOU - 1.68 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

Danger submission was based upon preliminary data. The feature was developed during the survey and found to be biologic in nature. AHB has verified the submitted data. Recommend to delete the charted Obstruction (5 ft rep) Latitude 030° 18' 38.310" N, Longitude 088° 06' 00.730" W.

Feature Images

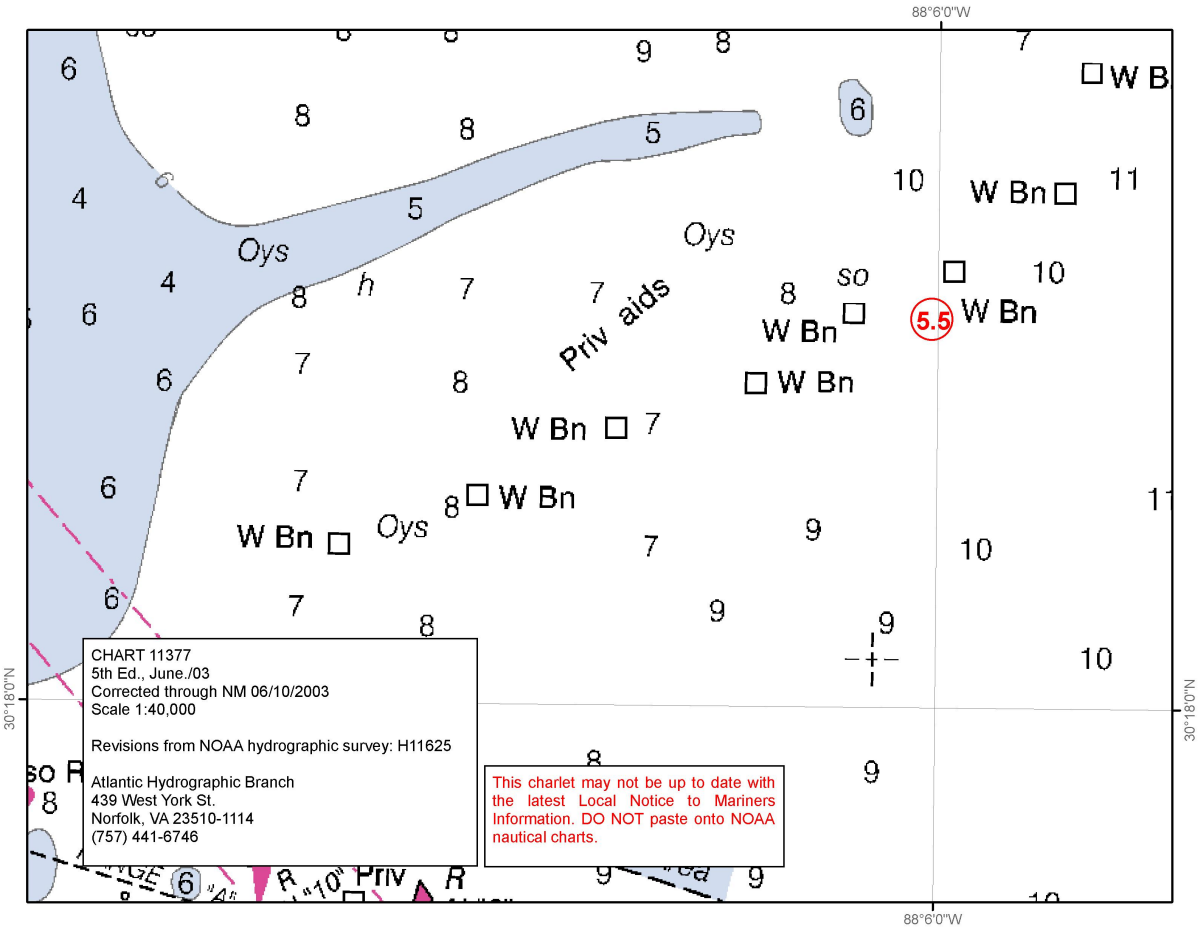


Figure 1.5.1

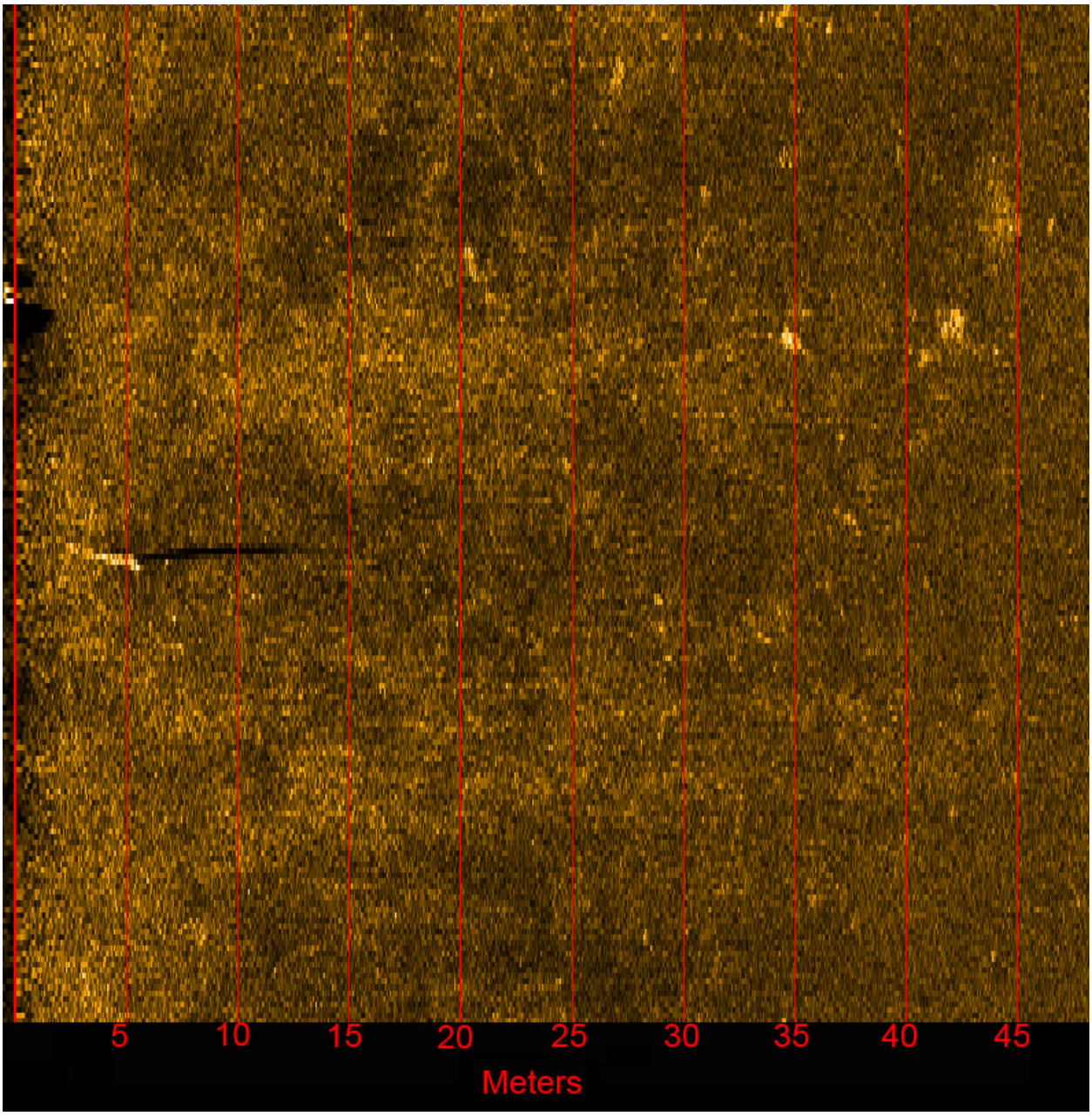


Figure 1.5.2

Registry Number: H11623

State: Alabama

Locality: Mobile Bay

Sub-locality: Fowl River Point to Aux Herons

Project Number: S-J977-KR-DEA

Survey Date: 04/25/2007

Charts Affected

Number	Version	Date	Scale
11377	5th Ed.	06/01/2003	1:40000
11378	34th Ed.	02/01/2006	1:40000
11376	51st Ed.	02/01/2006	1:80000
1115A	41st Ed.	03/01/2005	1:456394
11360	41st Ed.	03/01/2005	1:456394
11006	32nd Ed.	08/01/2005	1:875000
411	51st Ed.	12/01/2006	1:2160000

Features

No.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	DtoN9_Obstruction	GP	1.3***94*** m	30° 19' 55.22***2***" N	088° 06' 02.51***4***" W	---

1.1) DtoN9_Obstruction

DANGER TO NAVIGATION

Survey Summary

Survey Position: 30° 19' 55.220~~0~~*2*" N, 088° 06' 02.510~~0~~*4*" W

Least Depth: 1.33~~0~~*94* m

Timestamp: 2007-115.17:11:52.000 (04/25/2007)

GP Dataset: H11623_pydro.txt

GP No.: 1

Charts Affected: 11377_1, 11378_6, 11376_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

The following obstruction appears to be a submerged pile and was located during hydrographic survey operations. Depths in the vicinity are nine and 11 feet.

Feature depth is reduced to Mean Lower Low Water using preliminary observed, zoned tides from 873-5181. This tide file contains numerous data spikes and outages and as such the least depth on this feature will likely change with the application of smooth water levels and final zoning. Positions are referenced from the USCG DGPS beacon at Mobile Point. Horizontal Datum is North American Datum of 1983 (NAD83). Position and least depth were acquired from multibeam bathymetric data

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11623_pydro.txt	1	0.00	000.0	Primary

Hydrographer Recommendations

Chart a dangerous 4 ft Obstruction at the given location.

Cartographically-Rounded Depth (Affected Charts):

4ft (11377_1, 11378_6, 11376_1)

0 ¾fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: QUASOU - ~~9:value reported (not confirmed)~~ ***6 Least Depth Known.***

RECDAT - 20070806

SORDAT - 20070425

SORIND - US,US,***nsurf***,H11623

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

VALSOU - ~~1.33197596~~ ***1.394*** m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

DtoN #9 submission was preliminary. The submitted survey data has been verified. Recommend charting feature as a 4-ft Obstruction at the surveyed location. The feature is portrayed on the curent edition of the raster chart and ENC US5AL13M, source is US,US,reprt,L-973/07. Recommend to delete chart notation PA as feature has been verified.

Feature Images

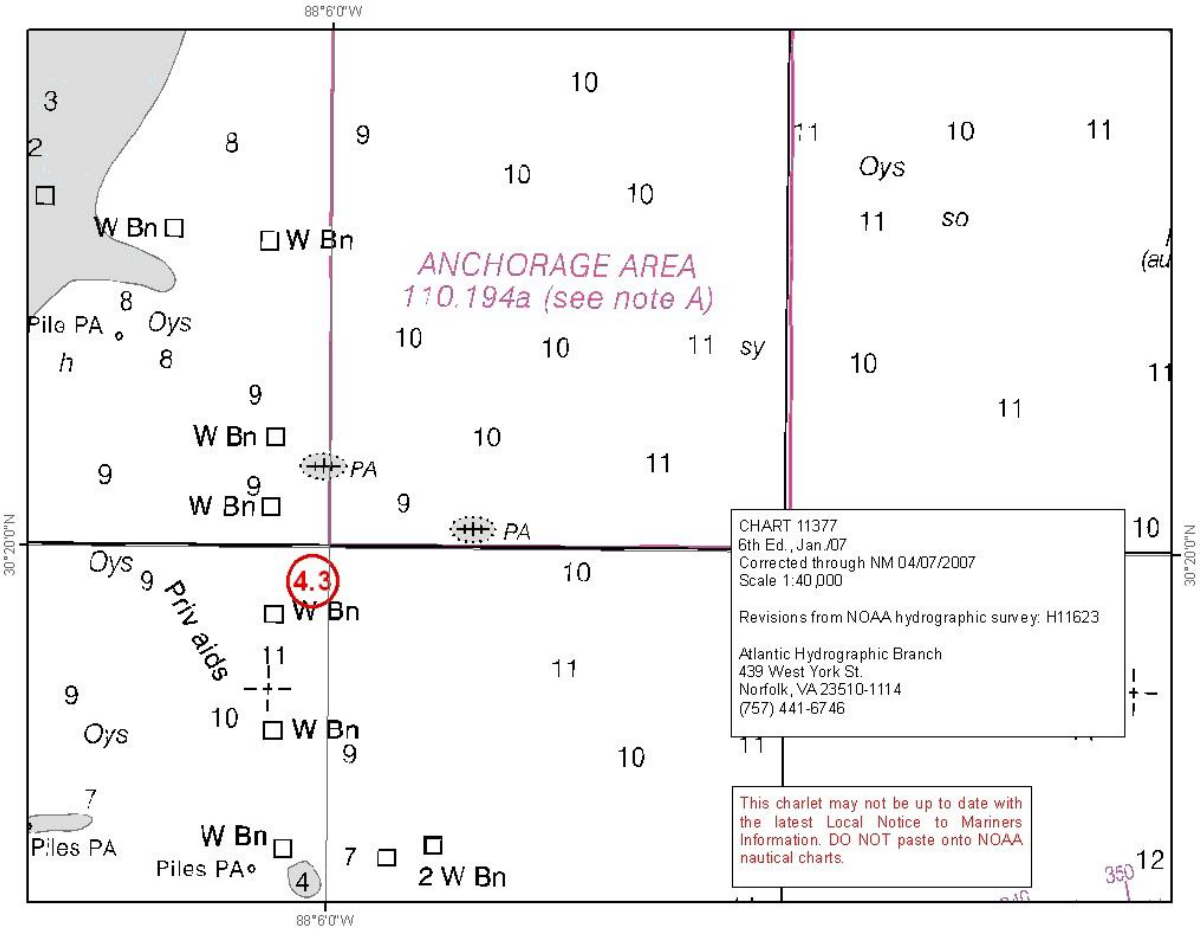


Figure 1.1.1

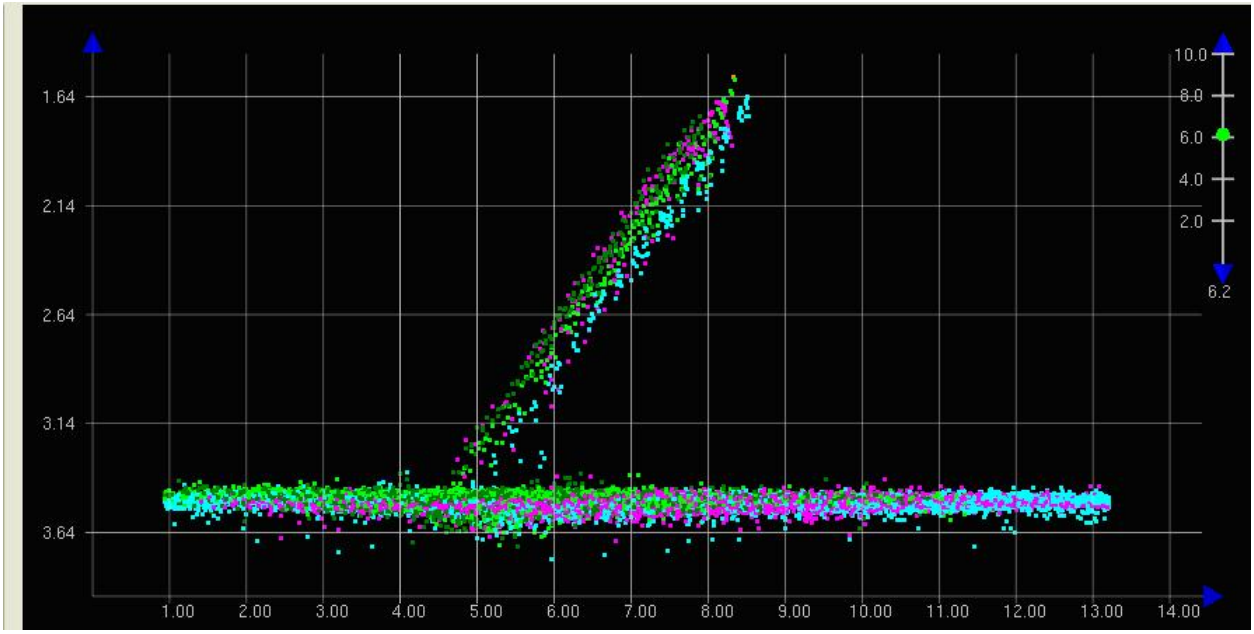


Figure 1.1.2

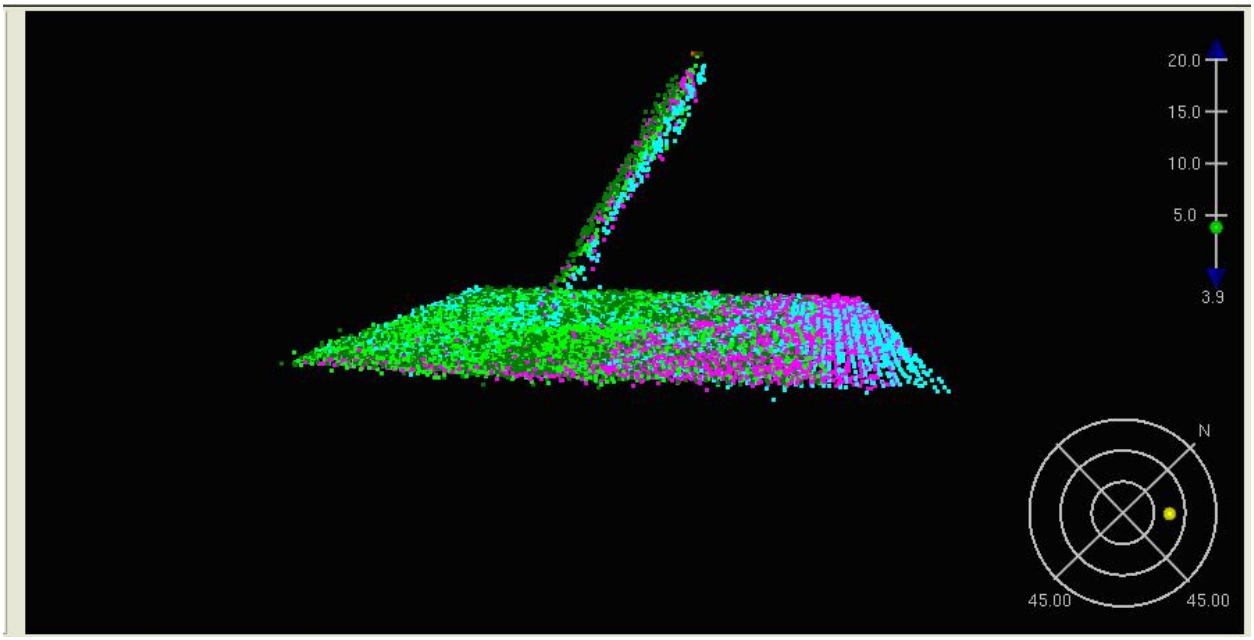


Figure 1.1.3

Registry Number: H11623

State: Alabama

Locality: Mobile Bay

Sub-locality: Fowl River Point to Aux Herons

Project Number: S-J977-KR-DEA

Survey Date: 04/27/2007

Charts Affected

Number	Version	Date	Scale
11377	5th Ed.	06/01/2003	1:40000
11378	34th Ed.	02/01/2006	1:40000
11376	51st Ed.	02/01/2006	1:80000
1115A	41st Ed.	03/01/2005	1:456394
11360	41st Ed.	03/01/2005	1:456394
11006	32nd Ed.	08/01/2005	1:875000
411	51st Ed.	12/01/2006	1:2160000

Features

No.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	Obstruction - 3 ft	GP	0.9***29*** m	30° 20' 36.36***4***" N	088° 06' 05.39***2***" W	---

1.1) DtoN #10 Obstruction - 3 ft

DANGER TO NAVIGATION

Survey Summary

Survey Position:	30° 20' 36.360~~4~~" N, 088° 06' 05.390~~2~~" W
Least Depth:	~~0.91~~ 0.929 m
Timestamp:	2007-117.21:23:24.000 (04/27/2007)
GP Dataset:	H11623_dton10.xls
GP No.:	1
Charts Affected:	11377_1, 11378_6, 11376_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Depths are reduced to Mean Lower Low Water using verified, zoned water levels from Dauphin Island (873-5180). Positions are referenced from the USCG DGPS beacon at Mobile Point, AL.

Horizontal Datum is North American Datum of 1983 (NAD83). Position and least depth were acquired from multibeam bathymetric data.

The obstruction is a pile that rises 7.3 ft (2.2 m) above the natural sea floor. The submerged pile is NE of a baring pile (charted beacon) marking an area of no shrimping. Current survey depths in the vicinity are 10 to 11 feet.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11623_dton10.xls	1	0.00	000.0	Primary

Hydrographer Recommendations

Chart a 3 ft submerged obstruction at the given location.

Cartographically-Rounded Depth (Affected Charts):

3ft (11377_1, 11378_6, 11376_1)

0 ½fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

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

RECDAT - 20071114

SORDAT - 20070427

SORIND - US,US,NSURF,H11623

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

VALSOU - 0.914 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

The DtoN submission was preliminary. The submitted survey data has been verified by AHB. Recommend charting feature as a 3-ft Obstruction at the surveyed location. The feature is portrayed on the curent edition of the raster chart # and ENC US5AL13M. Source is US,US,reprt,L-1347/07.

Feature Images

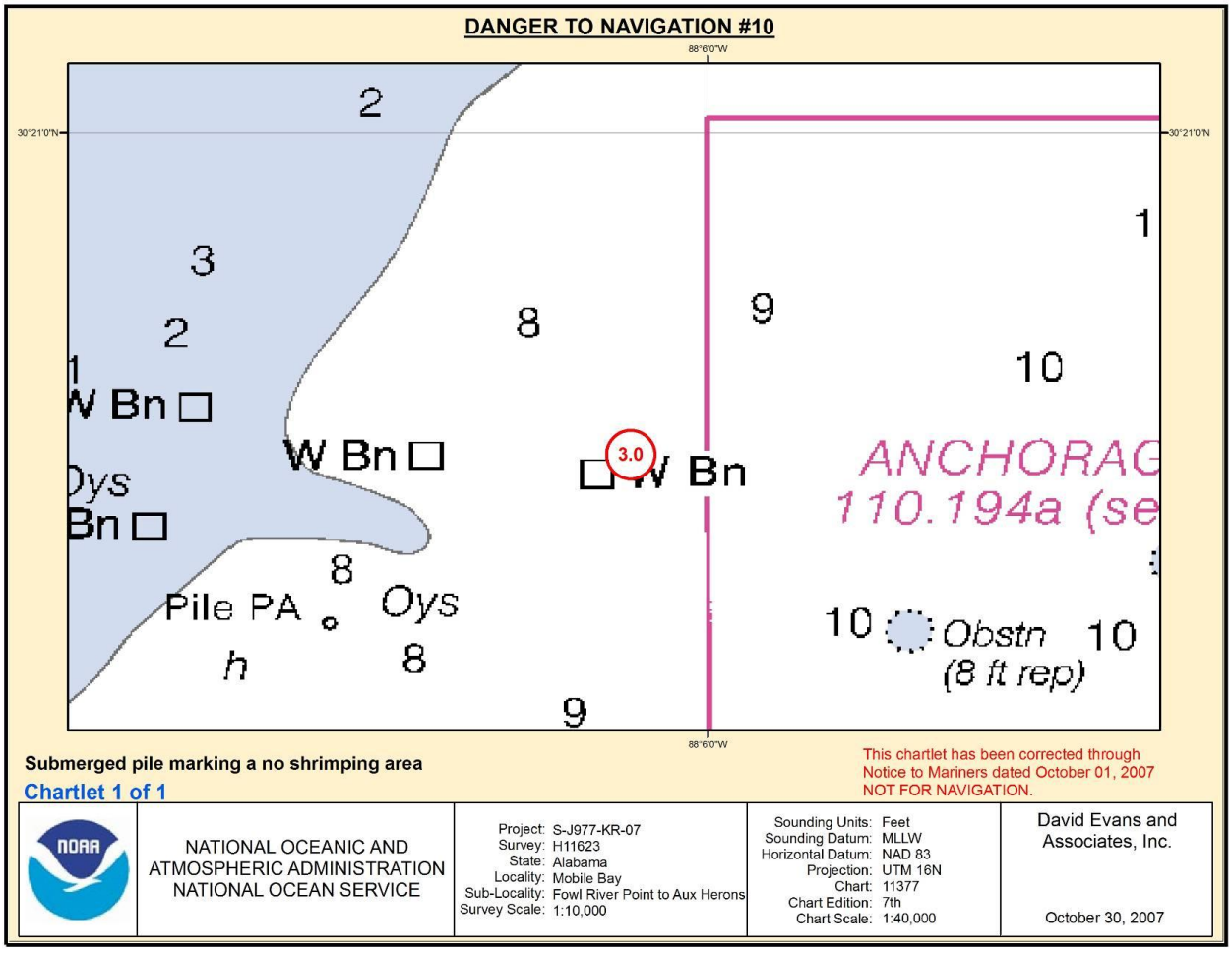


Figure 1.1.1

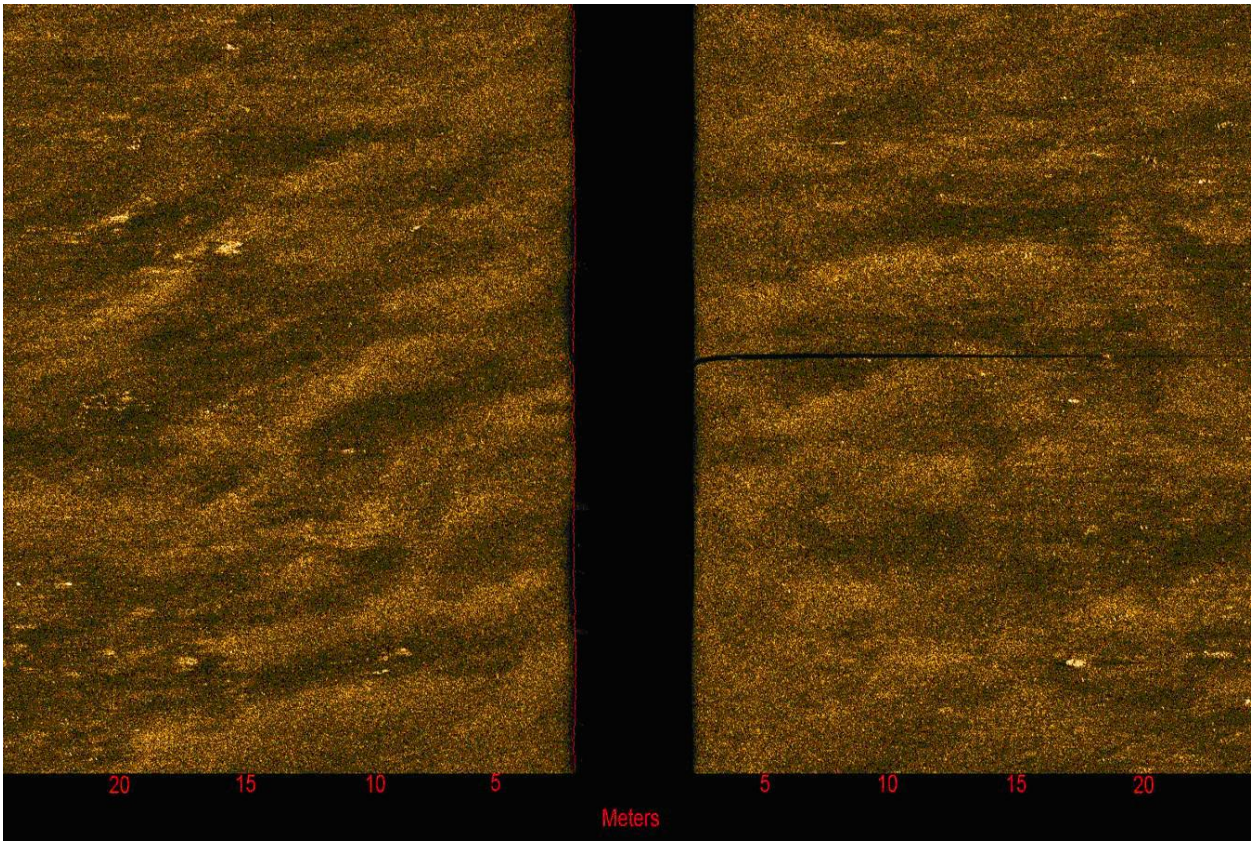


Figure 1.1.2

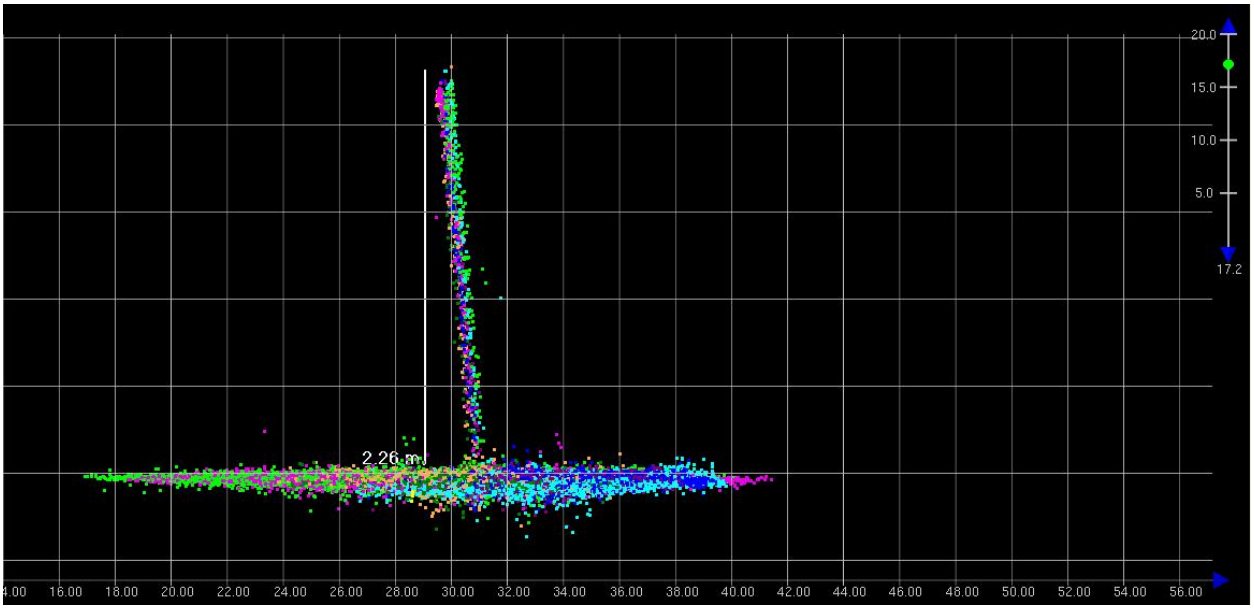


Figure 1.1.3

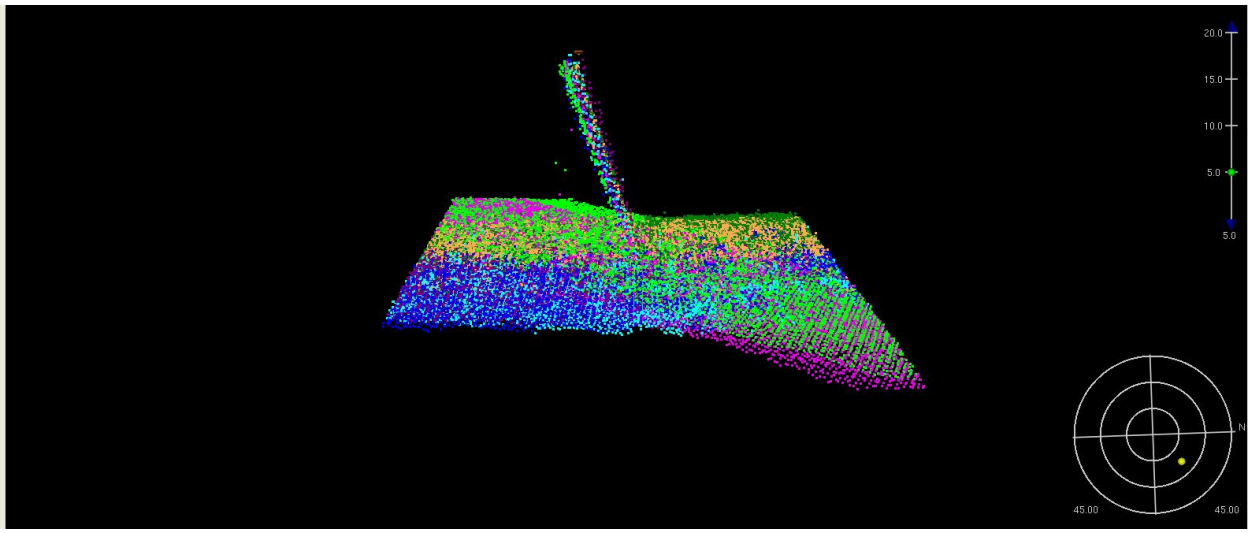


Figure 1.1.4

Registry Number: H11623

State: Alabama

Locality: Mobile Bay

Sub-locality: Fowl River Point to Aux Herons

Project Number: S-J977-KR-DEA

Survey Date: 04/25/2007

Charts Affected

Number	Version	Date	Scale
11377	5th Ed.	06/01/2003	1:40000
11378	34th Ed.	02/01/2006	1:40000
11376	51st Ed.	02/01/2006	1:80000
1115A	41st Ed.	03/01/2005	1:456394
11360	41st Ed.	03/01/2005	1:456394
11006	32nd Ed.	08/01/2005	1:875000
411	51st Ed.	12/01/2006	1:2160000

Features

No.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	5 ft Obstruction # 11	GP	1.6***9*** m	30° 19' 35.860" N	088° 07' 06.8***47***" W	---

1.1) 5 ft Obstruction # 11

DANGER TO NAVIGATION

Survey Summary

Survey Position:	30° 19' 35.860" N, 088° 07' 06.850~~50~~ ***47***" W
Least Depth:	1.6~~8~~ ***90***m
Timestamp:	2007-115.18:48:49.000 (04/25/2007)
GP Dataset:	H11623_dton11.xls
GP No.:	1
Charts Affected:	11377_1, 11378_6, 11376_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Depths are reduced to Mean Lower Low Water using verified, zoned water levels from Dauphin Island (873-5180). Positions are referenced from the USCG DGPS beacon at Mobile Point, AL.

Horizontal Datum is North American Datum of 1983 (NAD83).

Position and least depth were acquired from multibeam bathymetric data.

The obstruction is a narrow feature that rises 3.3 ft above the natural sea floor. Current survey depths in the vicinity are 9 ft.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11623_dton11.xls	1	0.00	000.0	Primary

Hydrographer Recommendations

Chart a 5 ft obstruction at the given location.

Cartographically-Rounded Depth (Affected Charts):

5ft (11377_1, 11378_6, 11376_1)

0 ¾fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

Geo object 1:	Obstruction (OBSTRN)
Attributes:	QUASOU - 6:least depth known
	SORDAT - 20070425

SORIND - US,US,NSURF,H11623

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

VALSOU - 1.6~~764~~***90*** m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

The information contained within this report was preliminary for the Danger submission . The feature has been verified. Recommend charting 5-ft Obstruction at the surveyed location. The feature is portrayed on the curent edition of the raster chart #11377_1 and ENC US5AL13M. Charting source as attributed in the US5AL13M is US,US,reprt,L-1428/07.

Feature Images

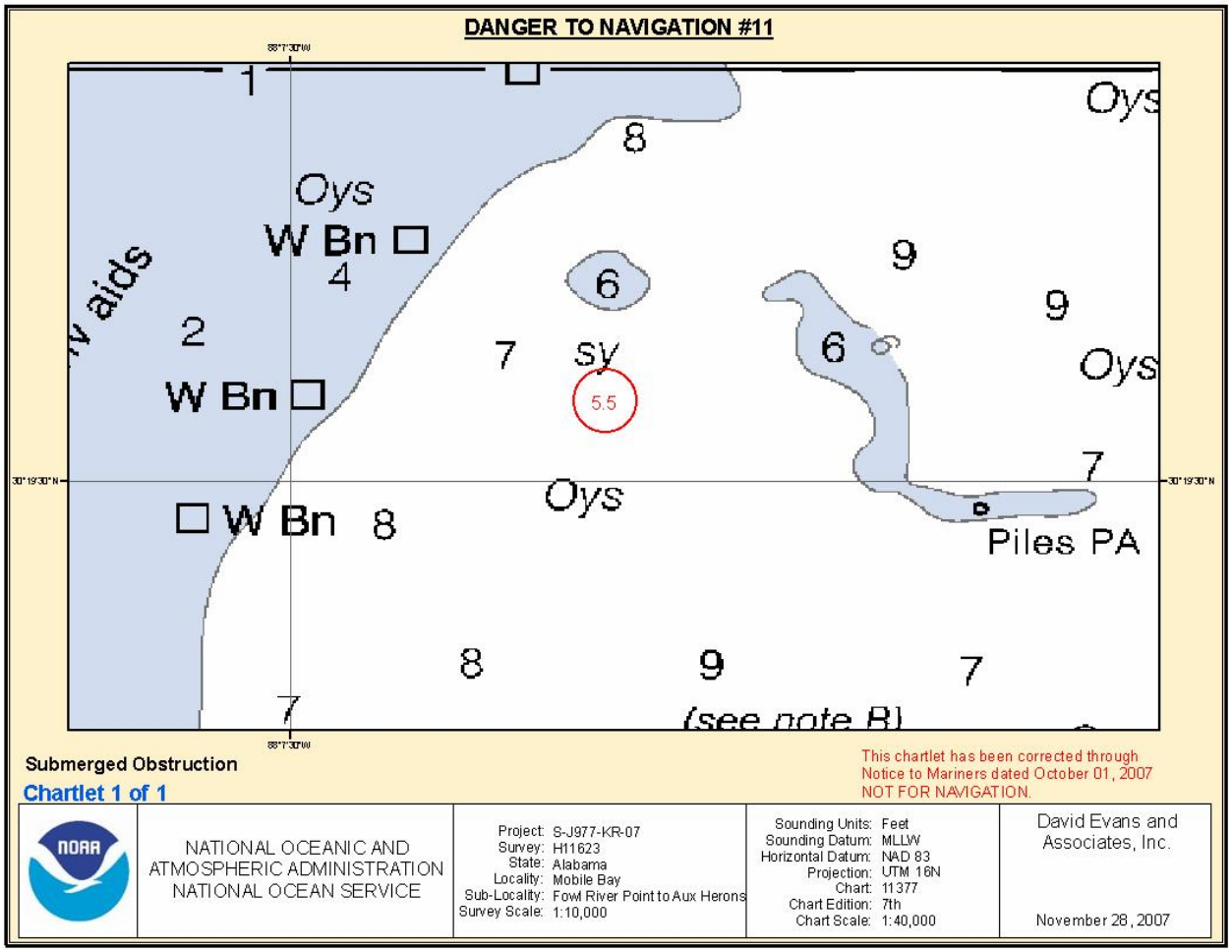


Figure 1.1.1

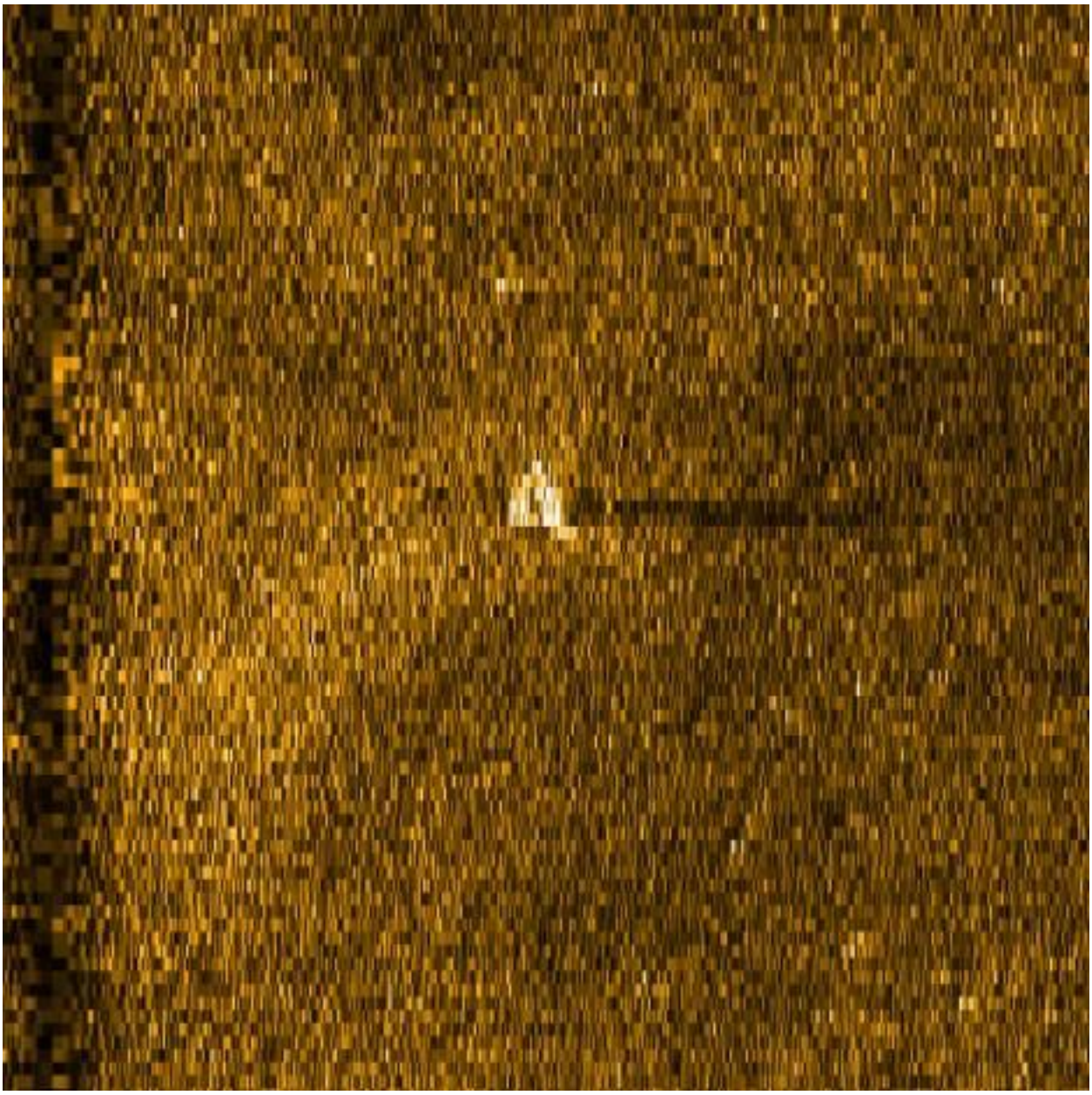


Figure 1.1.2

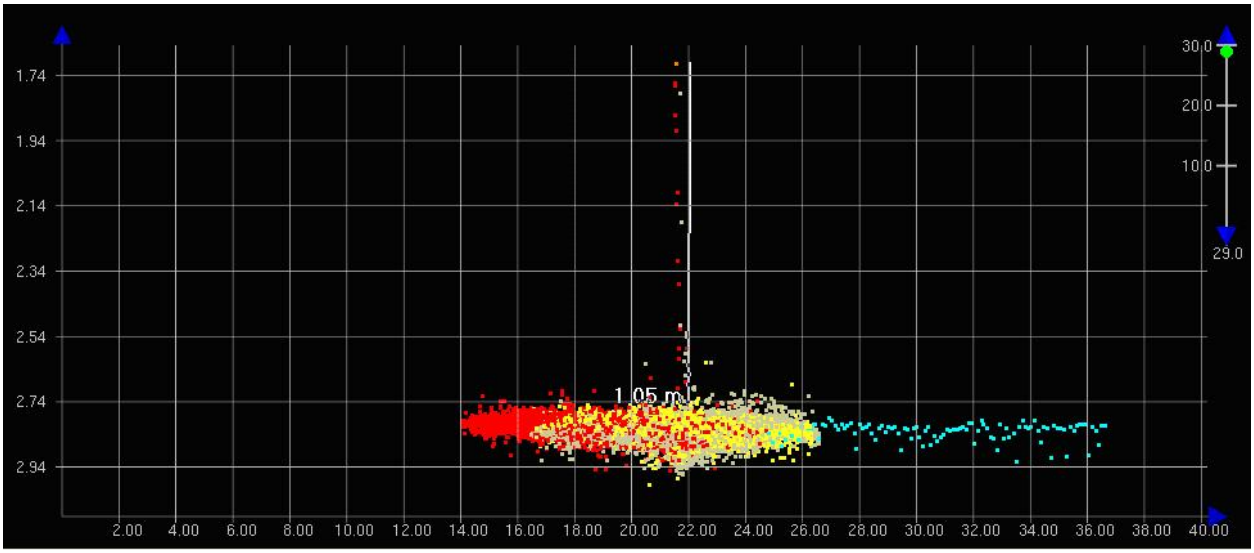
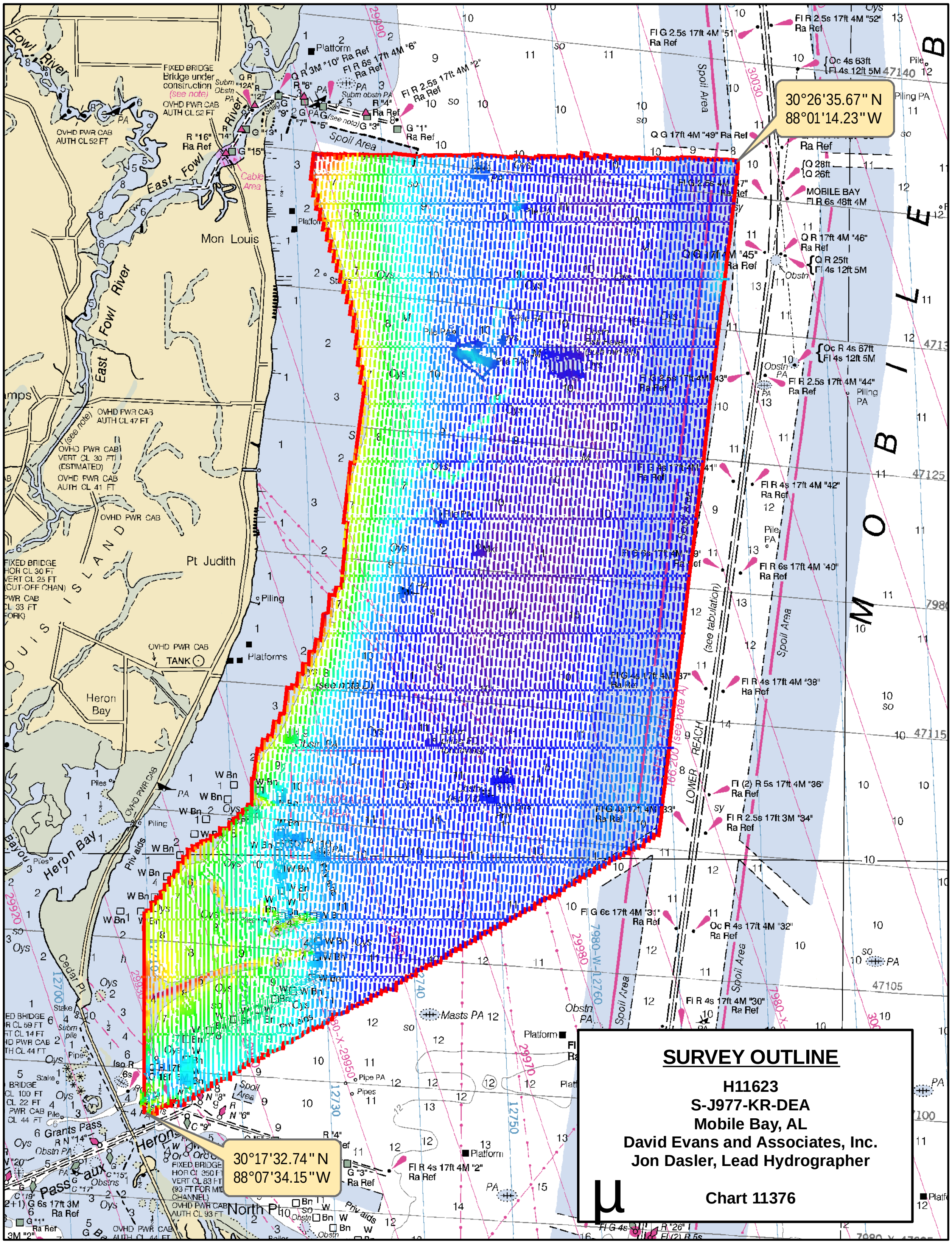

1.74
1.94
2.14
2.34
2.54
2.74
2.94
1.05 m
2.00 4.00 6.00 8.00 10.00 12.00 14.00 16.00 18.00 20.00 22.00 24.00 26.00 28.00 30.00 32.00 34.00 36.00 38.00 40.00
30.0
20.0
10.0
29.0

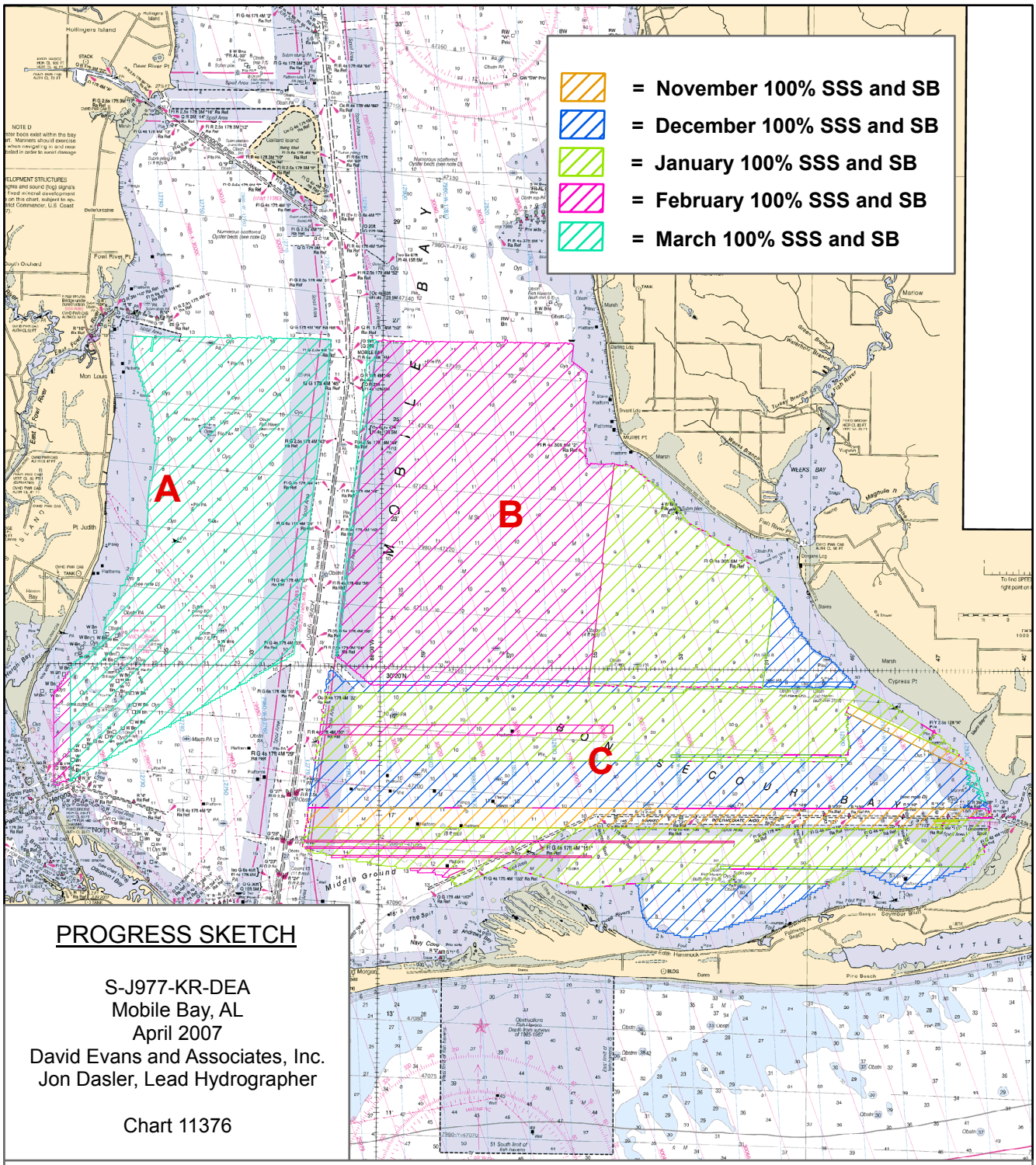
Figure 1.1.3

APPENDIX II
SURVEY FEATURE REPORTS

No AWOIS items were assigned for this project. See sections D1.e and D1.f of the *Descriptive Report* for a discussion of AWOIS items that were addressed as part of the required charted feature investigations.

APPENDIX III
FINAL PROGRESS SKETCH AND SURVEY Outline


30°26'35.67" N
88°01'14.23" W
30°17'32.74" N
88°07'34.15" W
SURVEY OUTLINE
H11623
S-J977-KR-DEA
Mobile Bay, AL
David Evans and Associates, Inc.
Jon Dasler, Lead Hydrographer
Chart 11376



PROGRESS SKETCH

S-J977-KR-DEA
Mobile Bay, AL
April 2007
David Evans and Associates, Inc.
Jon Dasler, Lead Hydrographer

Chart 11376

Sheet	Reg No	Started	Percent	Completed	Submitted	SQ NM
A	H11623	2/2/2007	100.0%	4/28/2007		29.12
B	H11624	12/10/2006	100.0%	4/27/2007		47.16
C	H11625	11/13/2006	100.0%	4/23/2007		53.76

Down time	November	December	January	February	March	April
Weather - Hr	36	123	141	130.5	185	178
Mechanical - Hr	0	0	13	0	0	0
Electronic - Hr	24	0	0	0	0	0

Accomplished	November	December	January	February	March	April
LNM SSS/SB	228.59	488.98	895.35	834.34	689.62	98.70
SQ NM	5.85	21.12	38.31	35.68	29.14	0.00
AWOIS Investigations	0	0	0	0	0	0
Other Investigations	0	0	1	0	10	319
Days at Sea	11	23	31	28	31	28
Bottom Samples	0	110	0	0	0	0

APPENDIX IV
TIDES AND WATER LEVELS

H11623 ABSTRACT OF HYDROGRAPHY

DN	START	END	YEAR
33	18:18:31	21:09:59	2007
65	13:16:06	0.912731481	2007
66	13:13:51	22:09:03	2007
67	13:55:36	19:59:43	2007
68	16:21:28	20:43:17	2007
69	14:15:28	20:48:12	2007
70	14:03:41	12:17:08	2007
71	13:38:50	20:41:39	2007
72	13:00:24	15:24:44	2007
77	15:21:25	19:56:55	2007
78	14:23:37	16:28:44	2007
79	12:54:10	21:47:03	2007
80	13:04:59	14:58:27	2007
82	13:13:24	20:22:08	2007
84	14:03:39	23:35:11	2007
87	12:53:30	18:09:17	2007
88	12:41:51	23:43:38	2007
102	13:24:54	23:10:53	2007
107	13:13:43	22:20:50	2007
108	13:37:14	14:37:02	2007
109	14:07:16	23:39:23	2007
114	13:02:18	19:53:31	2007
115	13:10:36	20:10:59	2007
118	15:03:17	18:21:23	2007
117	14:21:34	21:23:36	2007

H11623
FINAL TIDE NOTE

FINAL TIDE NOTE and FINAL TIDE ZONING CHART
DATE: December 21, 2007

HYDROGRAPHIC BRANCH: Atlantic

HYDROGRAPHIC PROJECT: S-J977-KR-DEA
HYDROGRAPHIC SHEET: H-11623

LOCALITY: Fowl River Point to Pass aux Herons

TIME PERIOD:
2007: February 2; March 6-13, 18-21, 23, 25, 28-29; April 12, 17-19, 24-25, 27-28

TIDE STATIONS USED: 873-5180 Dauphin Island, AL
Lat. 30° 15.0' N Lon. 88° 04.5' W

873-5180 Dauphin Island, AL

PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 0.360 meters

REMARKS: RECOMMENDED ZONING

Use zone(s) identified as: CGM47, CGM48, CGM49, CGM50, & CGM51

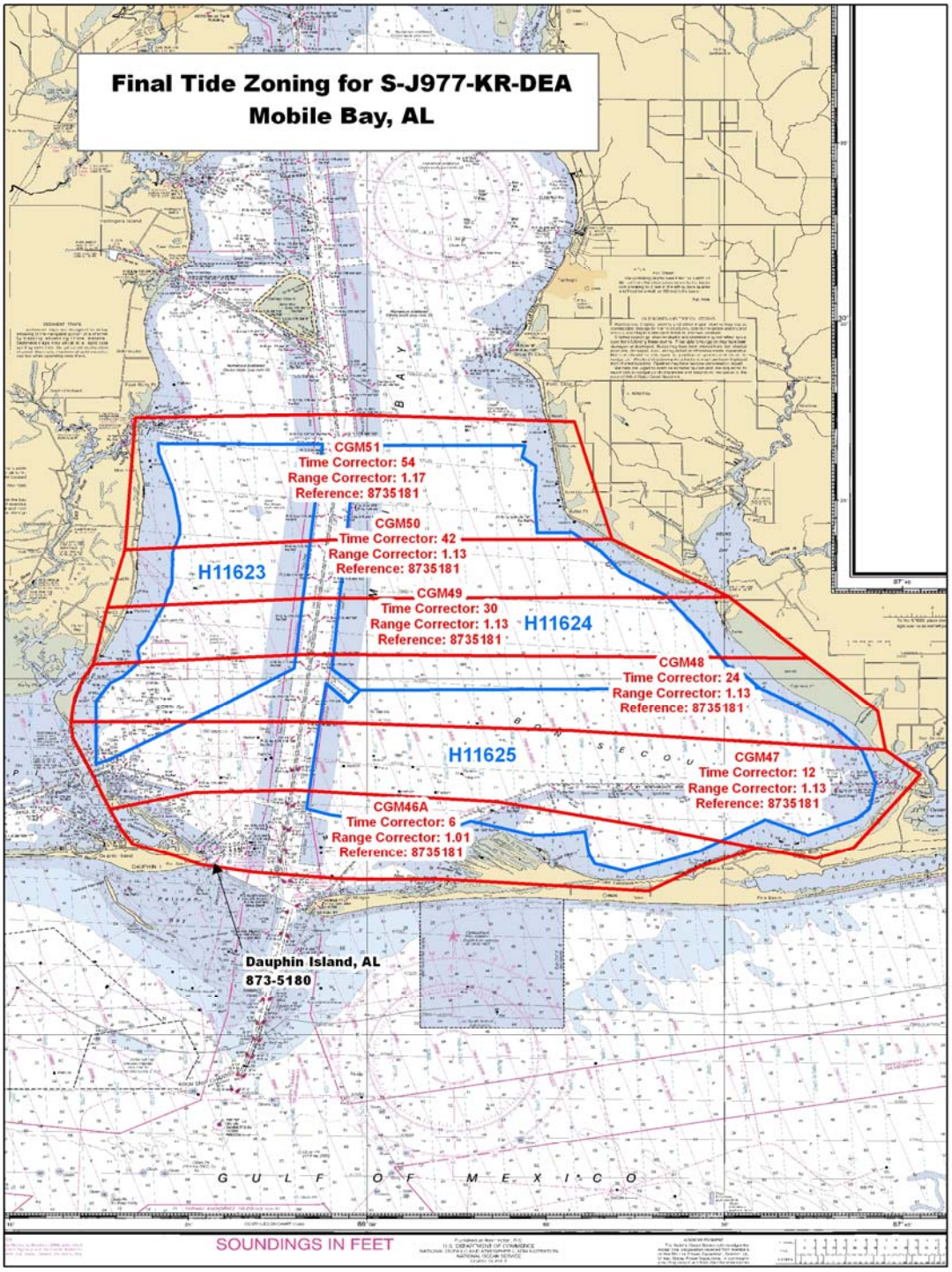
Refer to attachments for zoning information.

Note 1: Provided time series data are tabulated in metric units (meters), relative to MLLW and on Greenwich Mean Time.

Note 2: Dauphin Island, AL (873-5180) served as the primary tide station and was used for tidal zoning in this hydrographic survey.

Note3: Verified six minute water levels were downloaded from the Center for Operational Oceanographic Products and Services' website.

Note 4: Tide Zone boundaries, time correctors, and range correctors were applied as delivered by the Contracting Officer's Technical Representative (COTR). The zoning scheme was evaluated during processing and it was deemed that no modifications were necessary.


Final Tide Zoning for S-J977-KR-DEA
Mobile Bay, AL
CGM51
Time Corrector: 54
Range Corrector: 1.17
Reference: 8735181
CGM50
Time Corrector: 42
Range Corrector: 1.13
Reference: 8735181
H11623
CGM49
Time Corrector: 30
Range Corrector: 1.13
Reference: 8735181
H11624
CGM48
Time Corrector: 24
Range Corrector: 1.13
Reference: 8735181
H11625
CGM47
Time Corrector: 12
Range Corrector: 1.13
Reference: 8735181
CGM46A
Time Corrector: 6
Range Corrector: 1.01
Reference: 8735181
Dauphin Island, AL
873-5180
G U L F O F M E X I C O
SOUNDINGS IN FEET

APPENDIX V
SUPPLEMENTAL SURVEY RECORDS AND CORRESPONDENCE

From: crescent.moegling@noaa.gov
Sent: Thursday, February 08, 2007 8:15 AM
To: Jason Creech; Jon Dasler
Subject: [Fwd: Dauphin Island Tide Gauge Switch]

Attachments: ATT262248.png

FYI. . .

I was finally able to track down the official ruling on the Dauphin Island Hydro gauge.

-------- Original Message --------
Subject: Dauphin Island Tide Gauge Switch
Date: Fri, 01 Dec 2006 11:03:32 -0500
From: Craig Martin <Craig.Martin@noaa.gov>
Reply-To: Craig.Martin@noaa.gov
Organization: National Ocean Service
To: Brian Greenawalt <Brian.Greenawalt@noaa.gov>
CC: Mark T Lathrop <Mark.T.Lathrop@noaa.gov>

Brian,
It has come to my attention, after a couple of questions from an OCS contractor working in the gulf that our tide gauge set up at Dauphin Island is having some data shifting problems. Because the shifts were very slight, our automated QC-ing routines were not picking them up (see the picture below submitted by James DePasquale and Anne Dollard of Terrasond). This being said we'd like you to let any contractor know using the Dauphin Island Hydro gauge (873-5181) that they can get their data from the Dauphin Island NWLON gauge (873-5180) from 10/1/06 through the future. This will eliminate these data shifts and make for a better final hydro project. From what I can tell by going over my files for 2006/2007 is that projects J364, J373, and J977 -Terrasond, DEA and Fugro will likely be affected by this change. Because both Dauphin Island stations reside on the same tidal datum no change in zoning or correctors is needed. Just a switch in use of gauges from the Hydro (873-5181) to the NWLON (873-5180) for bathymetric data processing. If you have any questions please let me know.

Thanks,
Craig

--
Crescent Moegling
NOAA Hydrographic Surveys Division
Physical Scientist - COTR
301.713.2700 x114

Jason Creech

From: crescent.moegling@noaa.gov
Sent: Thursday, February 08, 2007 8:15 AM
To: Jason Creech; Jon Dasler
Subject: [Fwd: Dauphin Island Tide Gauge Switch]

Attachments: ATT262248.png

ATT262248.png (91 KB)

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Organization: National Ocean Service
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CC: Mark T Lathrop <Mark.T.Lathrop@noaa.gov>

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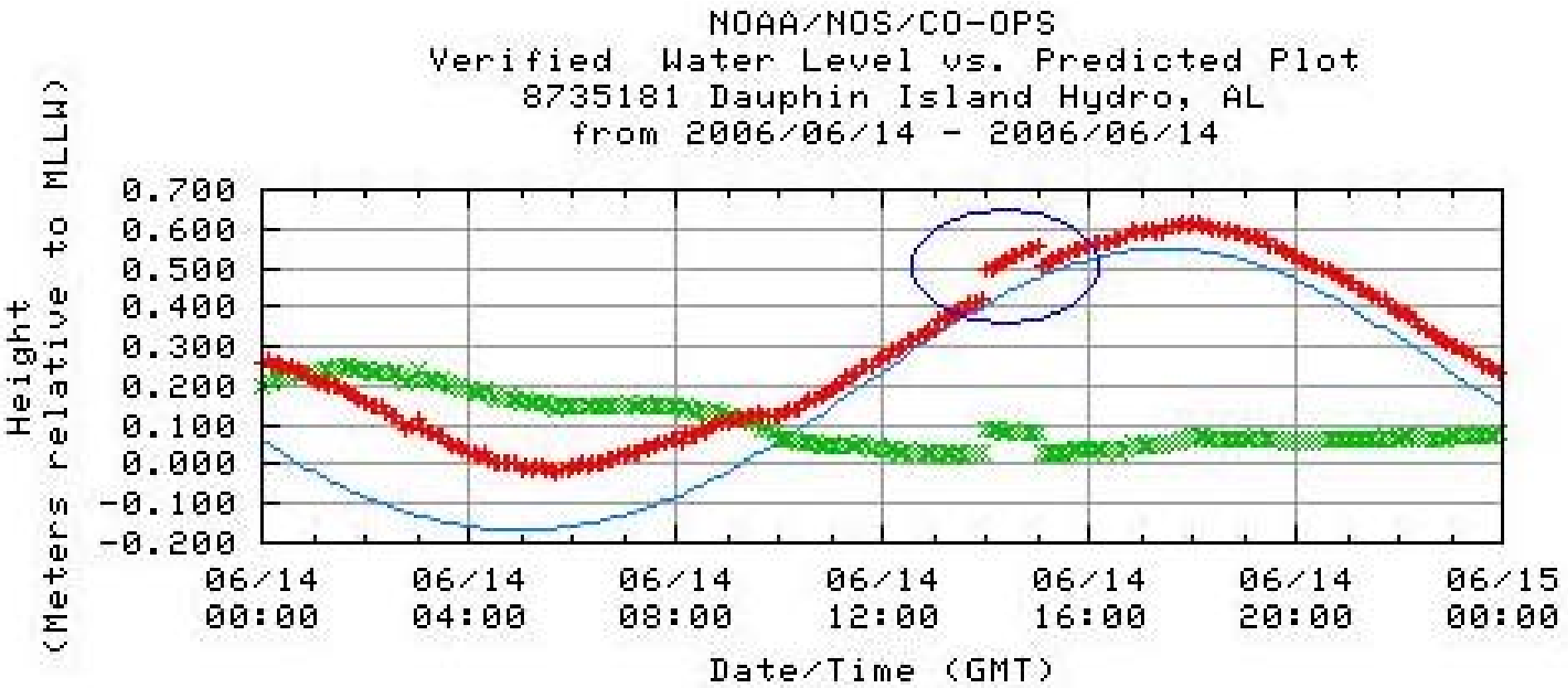
Thanks,
Craig

--
Crescent Moegling
NOAA Hydrographic Surveys Division
Physical Scientist - COTR
301.713.2700 x114


NOAA/NOS/CO-OPS
Verified Water Level vs. Predicted Plot
8735181 Dauphin Island Hydro, AL
from 2006/06/14 - 2006/06/14
Height
(Meters relative to MLLW)
0.700
0.600
0.500
0.400
0.300
0.200
0.100
0.000
-0.100
-0.200
06/14 00:00
06/14 04:00
06/14 08:00
06/14 12:00
06/14 16:00
06/14 20:00
06/15 00:00
Date/Time (GMT)
Predicted WL
(Obs-Pred)
Observed WL

Shyla Allen

From: Craig.Martin@noaa.gov
Sent: Tuesday, May 29, 2007 2:22 PM
To: Shyla Allen
Cc: Monica.Cisternelli@noaa.gov; Gerald.Hovis@noaa.gov
Subject: Re: RE: FW: S-J8977-KR-DEA Tides

Shyla,
    The levels have recently been run at both the hydro (5181) and NWLON (5180) Dauphin Island stations. As of right now it looks as if a aquatrack sensor, the part that sends the sound pulse to the water surface was mismatched with a calibrated sounding tube. The NWLON station was fine with its sensor check so this means that we will be having you pull your tide information from the NWLON station for the dates of hydrography. We are currently going back in and filling gaps of the NWLON data where they are missing. I will give you a call with all the needed information tomorrow, so stay tuned until then. Hope this helps.

Thanks,
Craig

----- Original Message -----
From: Shyla Allen <Sna@deainc.com>
Date: Tuesday, May 29, 2007 11:54 am
Subject: RE: FW: S-J8977-KR-DEA Tides

> Craig
>
> Good morning. I am finally back to the grind, um I mean office, and
> was wondering what decided for Mobile verified tides. We discussed
> using gauge 5181 and I was wondering if the datashift was resolved and
> gaps were filled.
>
> Thanks,
> Shyla
>
> _____
>
> From: Craig Martin [mailto:Craig.Martin@noaa.gov]
> Sent: Monday, May 07, 2007 8:14 AM
> To: Shyla Allen
> Cc: Crescent Moegling; Monica Cisternelli; Gerald Hovis
> Subject: Re: FW: S-J8977-KR-DEA Tides
>
>
> Shyla,
>   We've had 4 or 5 people looking into the issues with Dauphin
> IslandNWLON and Hydro over the past few days. We've retraced our
> steps in order to find out the discrepancy you see with the data
> (offset).
> As a
> part of this a CO-OPS field crew will be completing another set of
> checklevels this week to help finalize our recommendation to DEA and
> others using the gauges for water level control. Thanks for your
> patience andlook for an answer to your questions soon, hopefully by
> weeks end.
>
> Thanks,
> Craig
>
> Shyla Allen wrote:
>
>

>
>   -----Original Message-----
>   From: Shyla Allen
>   Sent: Tuesday, May 01, 2007 2:59 PM
>   To: crescent.moegling@noaa.gov
>   Cc: 'gerald.hovis@noaa.gov'
>   Subject: S-J8977-KR-DEA Tides
>
>   Crescent
>
>   I wanted to brief you on an issue we are having on the Mobile Bay
>   project.
>
>   Daulphin Island gauge 873-5180 stopped transmitting on April 23,
> 2007.
>   Prior to the cessation there were numerous data gaps, in fact there
> are
>   at least 27 gaps that occurred during survey operations. I have been
> in
>   contact with CO-Ops and CORMS about this. A NOAA crew went there
> last
>   weekend (see email thread below), however no new data has been posted
> on
>   the web. Jerry Hovis advised me to use 873-5181 for water level
>   reductions. However, this raises the following concerns; gauge
> 5181 was
>   originally switched due to "data shifting problems" (email dated
>   12/1/06, from Craig Martin), which as far as I know, has not been
>   resolved, there is an unexplained variable difference between the
> gauges
>   for observed water levels that range from 3-10cm (see attachment)and
>   verified tides are not posted for 873-5181.
>
>   To make matters even more complicated there are numerous data outages
> in
>   the observed tide file for 5181. Can you please advise how we should
>   proceed.
>
>   Thanks,
>   Shyla
>
>
>
>   -----Original Message-----
>   From: Gerald Hovis [mailto:Gerald.Hovis@noaa.gov]
>   Sent: Monday, April 30, 2007 8:24 AM
>   To: Shyla Allen
>   Cc: Craig Martin; Mike Gibson; Peter Stone
>   Subject: Re: 8735180 Dauphin Island, AL status
>
>   Shyla,
>
>   Not sure how things were left on Friday regarding Dauphin Island.
> From
>   below it appears that 5180 (NWLON) will be fixed today / tomorrow? If
>   you have need now, switch back to the original 5181 (Hydro) station
>   which is operating. Let me know if you have questions.
>
>   Jerry
>
>   Larry Neeson wrote:
>
>
>   Tom:
>
>   We are addressing the issue as I write. The crew was on the

> structure
>
>
>
>
>
>   the other day and repaired the wind bird. We are sending them
> a new
>   Satlink board today by FedEx and hopefully they can get
> A-1 restored
>   sometime tomorrow. I am not sure what the problem with the
> backup is
>   but will have them investigate.
>
>   Larry
>
>   Thomas Landon wrote:
>
>
>   Dauphin Island started missing transmissions in late
> March and has
>   gotten steadily worse. CORMS turned it off on April 28
> for DCP
>   failure. There are two hydro contracts, J364 and J977,
> that are using
>
>
>
>
>
>   data from the Dauphin Island hydro gage. That gage is
> operating but
>   should it fail, the NWLON station can't be used.
> There is also no
>   backup data from the NWLON gage. The NWLON gage is
> also part of the
>   future Mobile PORTS, and should be made fully
> operational before the
>   Mobile dedication on May 14.
>
>   Larry, can the crew stop by there on the way back from
> Louisiana?
>
>   Tom
>
>
>
>
>   --
>   Jerry Hovis
>   Tidal Datums & Hydrographic Support Team Center for Operational
>   Oceanographic Products & Services Products and Services Division
>   National Ocean Service National Oceanographic Atmospheric
> Administration
>   http://www.tidesandcurrents.noaa.gov/
> <http://console.mxlogic.com/redir/?2CY-
>
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> s1kzh0c5M8ud78Usn0E5BMUq43h02p8vgTfM-u0USyrhdFzCkTNMVYTTK10WCahPow>
>
>   gerald.hovis@noaa.gov
>   SSMC4, Sta. 7200
>   1305 East-West Highway
>   Silver Spring, MD 20910 USA
>   Work: (301) 713-2890 x109

>   Fax: (301) 713-4437
>
>
>
>

Jon Dasler

From: Shyla Allen
Sent: Wednesday, December 26, 2007 4:39 PM
To: Jon Dasler
Subject: FW: FW: S-J8977-KR-DEA Tides

From: Craig Martin [mailto:Craig.Martin@noaa.gov]
Sent: Wednesday, May 02, 2007 8:50 AM
To: Crescent Moegling
Cc: Shyla Allen; Gerald Hovis
Subject: Re: FW: S-J8977-KR-DEA Tides

Cres,
Shyla and I spoke on the phone concerning the tides issues at Dauphin Island and Dauphin Island hydro. CO-OPS is currently working to correct the problems and get the appropriate cleaned tide data set to Shyla and DEA. When completed i'll email shyla and cc you that the work has been completed and provide you with any information that may be relevant.

Thanks,
Craig

Shyla Allen wrote:

> -----Original Message-----
> From: Shyla Allen
> Sent: Tuesday, May 01, 2007 2:59 PM
> To: crescent.moegling@noaa.gov
> Cc: 'gerald.hovis@noaa.gov'
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>
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To make matters even more complicated there are numerous data outages in the observed tide file for 5181. Can you please advise how we should proceed.

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Shyla

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Mobile dedication on May 14.

Larry, can the crew stop by there on the way back from Louisiana?

Tom

--
Jerry Hovis
Tidal Datums & Hydrographic Support Team Center for Operational
Oceanographic Products & Services Products and Services Division
National Ocean Service National Oceanographic Atmospheric Administration
http://www.tidesandcurrents.noaa.gov/

gerald.hovis@noaa.gov
SSMC4, Sta. 7200
1305 East-West Highway
Silver Spring, MD 20910 USA
Work: (301) 713-2890 x109
Fax: (301) 713-4437

H11623 Bottom Samples

TXTDSC	Lat_DD	Lon_DD	NATQUA	NATSUR	COLOR	Value
A01	30.4333584000	-88.0313812500	1	2	7	fine,clay,grey
A02	30.4332971667	-88.0519691667	1	2	7	fine,clay,grey
A03	30.4330928000	-88.0727411833	1~1	2~4	7~0	fine-fine,clay-sand,grey
A04	30.4328965333	-88.0934907000	1~1	4~3	4~4	fine-fine,sand-silt,green-green
A05	30.4149891667	-88.0721550833	1~1~4	2~4~17	4~0~0	fine-fine-broken,clay-sand-shell,green
A06	30.4152805000	-88.0520465833	1~1	3~2	4~7	fine-fine,silt-clay,green-grey
A07	30.4152162667	-88.0313545333	1	2	7	fine,clay,grey
A08	30.3970022167	-88.0308128167	1	2	7	fine,clay,grey
A09	30.3970889500	-88.0519096333	1~4	3~17	4~0	fine-broken,silt-shell,green
A10	30.3969274000	-88.0724692500	1~4	3~17	4~0	fine-broken,silt-shell,green
A11	30.3789513500	-88.0722259000	1~1	2~3	7~4	fine-fine,clay-silt,grey-green
A12	30.3791319500	-88.0512736667	1	2	7	fine,clay,grey
A13	30.3791231833	-88.0306564833	1~4	2~17	4~0	fine-broken,clay-shell,green
A14	30.3612284500	-88.0320283667	1~4	2~17	7~0	fine-broken,clay-shell,grey
A15	30.3609962333	-88.0510648333	1	2	7	fine,clay,grey
A16	30.3609037500	-88.0722087167	1	2	7	fine,clay,grey
A17	30.3606728333	-88.0928179167	1	2	7	fine,clay,grey
A18	30.3455016833	-88.0965696167	1	3	4	fine,silt,green
A19	30.3456082167	-88.0881688000	1	2	7	fine,clay,grey
A20	30.3430587667	-88.0717989167	1	2	7	fine,clay,grey
A21	30.3430830500	-88.0508443000	1~1	2~3	4~4	fine-fine,clay-silt,green-green
A22	30.3356696333	-88.0873304000	1	2	4	fine,clay,green
A23	30.3358200333	-88.0965339333	1	2	7	fine,clay,grey
A24	30.3244153333	-88.1133167167	1~1~4	4~3~17	9~4~0	fine-fine-boken,sand-silt-shell,amber-green
A25	30.3064094500	-88.1129191000	1~1	2~4	7~0	fine-fine,clay-sand,grey
A26	30.3250398667	-88.0922953667	1	2	7	fine,clay,grey
A27	30.3249774500	-88.0718568167	1~4	2~17	4~0	fine-broken,clay-shell,green


AI


A2
Sterilite

A3
Sterilite

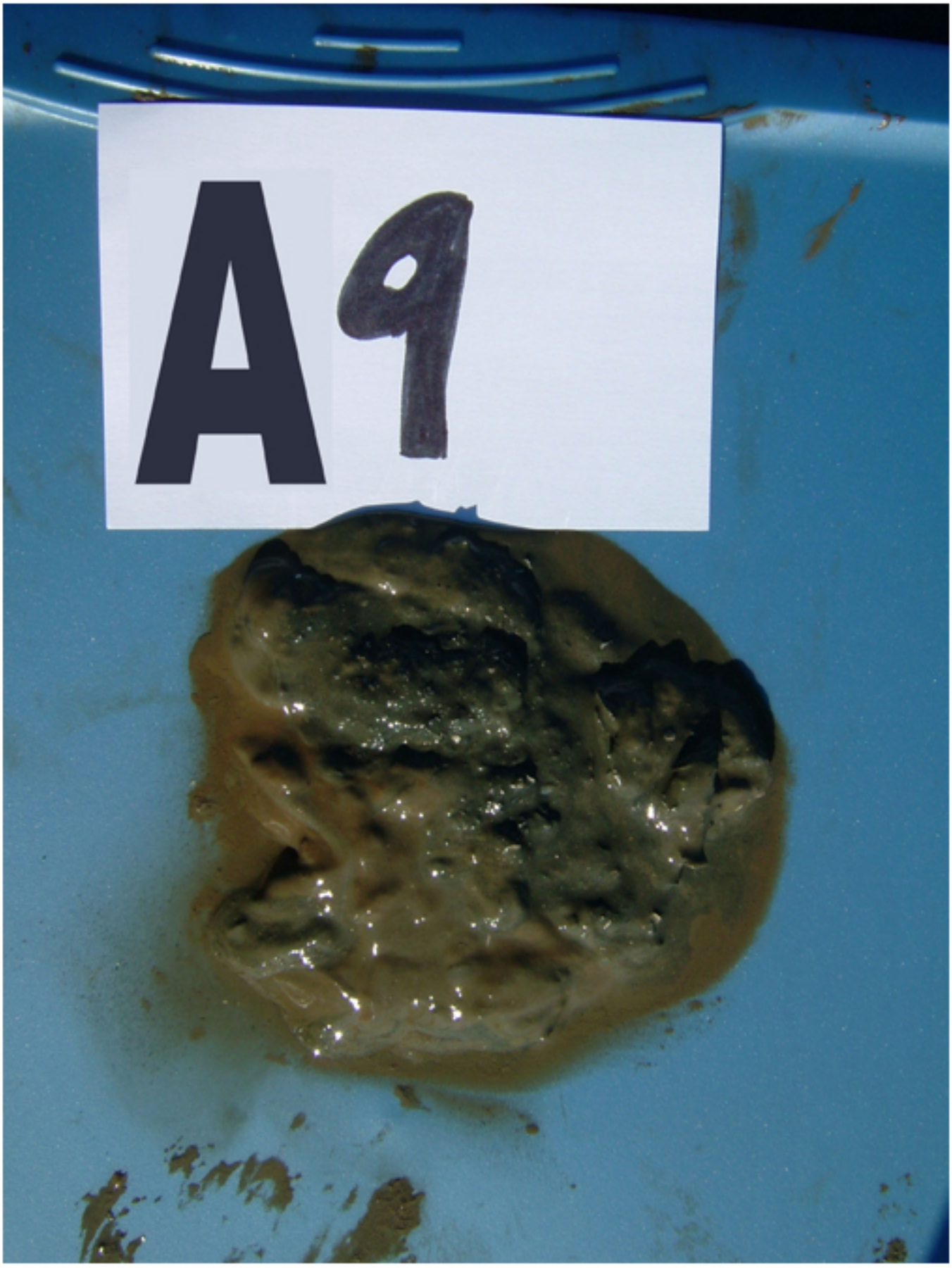
A4
Steriltic


A5


A6


A7
Sterilite

A8
Sterilite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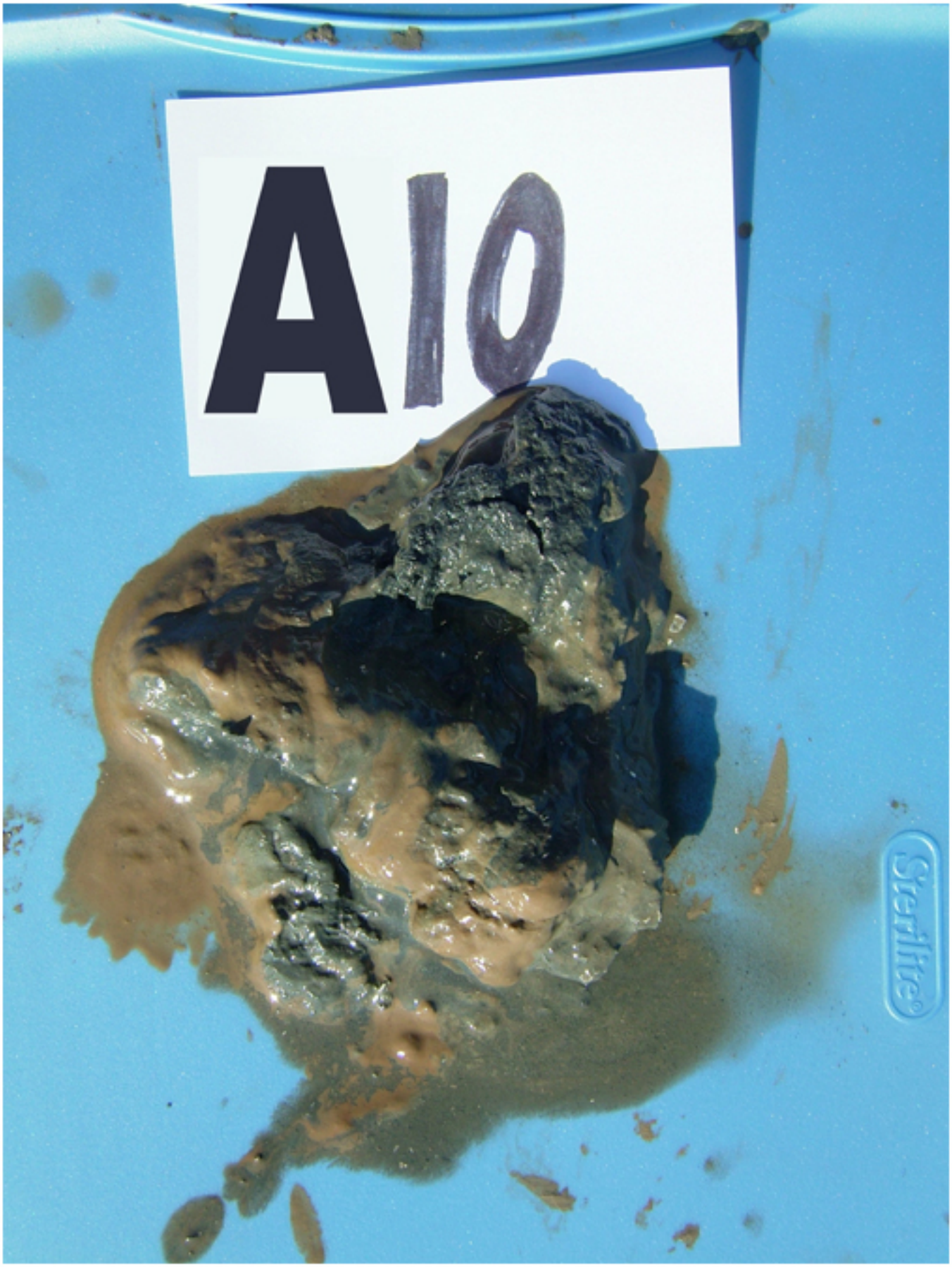
A10
Sterilite

All
Sterilite


A12
Sterilite


A13
Sterilite


A14
Sterilite


A15


A16
Sterilite


A17


A18
Sterilite


A19


A20
Sterilite


A21


A22
Sterilitest


A23


A24
Sterilite


A25


A26


A27
Steelite

Subject: Re: H11623 question
Date: Mon, 02 Apr 2007 08:36:50 -0400
From: gene_parker <castle.e.parker@noaa.gov>
Organization: NOAA / Atlantic Hydrographic Branch
To: Jason Creech <Jasc@deainc.com>
CC: Crescent Moegling <Crescent.Moegling@noaa.gov>,
Stephen Gottschalk <Stephen.Gottschalk@noaa.gov>,
Robert Newton <Robert.Newton@noaa.gov>

Good Morning Jason,

I think DEA needs to submit Danger list for Priv Aids (W Bn); submit all that you have positioned on the chartlet with exception of 8,9, &10 (these are charted). Submit as one Danger submission for the multiple features; table format should work.

Take a DP on the Red Buoy "WR"; survey the area near the buoy and the wreck so that you can say, the wreck is definitely not located where the buoy is located. Survey the existing Wk (900m away) as you have suggested so that you can say the Wk is definitely located at X,Y GP. The "WR" buoy location would go back to GOM Nav Manager (Tim Osborn); the red buoy is not a Priv Aid. DEA should collect the data and provide AHB with documentation. AHB will then take your documents and submit to Nav Manager in lieu of submitting to MCD. Tim Osborn should then go to USCG and provide information so that the ATON team can relocate the buoy to the proper location (actual location of the Wk).

The white Bn can be positioned from SS if you choose in lieu of obtaining DP on each beacon; we'll leave that decision to you as to what would be most efficient of your survey time and efforts. AHB will process the Danger when you submit.

Thanks, call if this is not clear.
Regards, Gene

Jason Creech wrote:

> Gene We have found a series of what appears to be mischarted private
> beacons within the H11623 survey area as well as a red "WR" buoy placed by
> the USCG to mark an uncharted wreck that based on our 100% SSS does not
> exist. We have located what appears to be a wreck with no visible shadow
> approximately 900m from the USCG "WR" buoy. We plan to run 200% SSS on the
> mischarted locations of the private beacons for disproval as well as to
> develop the wreck with MB to determine a LD. I have attached a preliminary
> chartlet and photos of the items. We are wondering how to proceed with
> this information and if a DTON is warranted at this time. The IMG number
> of each photo corresponds to the number on the chartlet with the Red buoy
> "WR" being number 16. I can call to discuss later this afternoon after you
> have had a chance to review this
> email. Thanks,Jason **********
> Jason C. Creech
> Hydrographer
> David Evans and Associates Inc.

Subject: Re: Request for USCG Aids to Navigation - Potentially Misplaced Temp Buoy
Date: Thu, 24 Apr 2008 11:01:17 -0500
From: Patrick Fink <Patrick.Fink@noaa.gov>
To: "Dillon, James BMCS" <James.Dillon@uscg.mil>
CC: gene_parker <Castle.E.Parker@noaa.gov>, Tim Osborn <Tim.Osborn@noaa.gov>, "Shep.Smith" <Shep.Smith@noaa.gov>

Jim,

My name is Patrick Fink with NOAA's Office of Coast Survey in Lafayette, LA. Jon Mangum mentioned that you, as Officer in Charge for Aids to Navigation Team Mobile, may be able to answer technical questions about this issue.

When was the buoy moved to its proper location? What is the current location of the buoy? Please call at 337-291-3084.

Thanks,

Patrick

Mangum, Jonathan LT wrote:

> ANT Mobile relocated the buoy to mark the wreck which was much easier than
> moving the wreck under the buoy.
>
> I am copying Jim Dillon, Officer in Charge for Aids Navigation Team
> Mobile. Any technical questions should be directed to him.
>
> -----Original Message-----
> From: Patrick.Fink@noaa.gov [mailto:Patrick.Fink@noaa.gov]
> Sent: Thursday, April 24, 2008 10:39 AM
> To: Castle.E.Parker
> Cc: Tim Osborn; Shep.Smith
> Subject: Re: Request for USCG Aids to Navigation - Potentially Misplaced
> Temp Buoy
>
> Castle,
>
> I contacted Jon Mangum with USCG Mobile about the buoy and the wreck that
> it was marking. He will be sending an email to me shortly describing the
> action USCG took regarding the buoy. I will forward that email to you
> when I receive it.
>
> Patrick
>
> _____
>
>
> Castle.E.Parker wrote:
>
> Good Day Patrick,
> Have you received a response from the USCG regarding the misplaced
> buoy located during H11623 survey. I'm following up with this outstanding
> issue as AHB is finishing the survey review and ready to begin chart

> compilation. AHB is curious about the USCG response such that we need to
> know in which direction to steer with this feature and issue.
>
>   Thanks for your assistance,
>   Cheers, Gene
>
>   Patrick Fink wrote:
>
>   Jon,
>
>   Tim Osborn and I received a message from NOAA headquarters
> pertaining to a potentially misplaced buoy in Mobile Bay. Apparently the
> buoy, which is supposed to identify a wreck, may not be correctly in
> place. Please see attached documentation illustrating recent
> correspondence.
>
>   A NOAA survey team found a temporary USCG buoy (see
> attached picture) that has been confirmed to mark a wreck. However, upon
> performing a sonar scan of the area, no wreck was found at or near the
> buoy's location. The buoy's location is 30-18-34.83N, 088-07-08.35W.
>
>   We need the following information from the USCG Aids to
> Navigation Division:
>
>   1- Has this buoy been relocated by the USCG?
>   2- What is the actual location of the wreck this buoy is
> supposed to mark?
>
>   Please call if anything is unclear.
>
>   Thanks Jon,
>
>   Patrick Fink
>   NOAA
>   337-291-3084
>
>
> _____
>
>   Tim,
>
>   I am writing in response to a buoy located during the
> GOM/DMP survey
>   H11623. A buoy was located by the survey team (DEA) who
> decided it was
>   out of place and not on station.   The survey indicates
> that a wreck is
>   not present at the buoy's location. I have contacted DEA
> who wrote that
>   the US Coast Guard confirmed that the buoy was indeed a
> USCG buoy which
>   was intended to mark a wreck. In short, AHB needs you to
> contact the
>   UCSG Aids to Navigation team and determine if this buoy
> has been
>   relocated and also find out where the wreck is located
> that this

> particular buoy is supposed to mark.
>
> Rather then re-typing everything I have attached all
> correspondence in a
> word file for further clarification of the issues to date.
> Additionally, a screen grab of the section of the DR
> concerning this
> item is attached.
>
> AHB appreciates your assistance in clarification of the
> buoy status.
> The problem for AHB is that it's documented in the survey
> descriptive
> report. The buoy would be excluded in AHB's H-cell (MCD
> deliverable),
> but since it's listed in the DR, we have to address the
> whole issue of
> whether it is marking a wreck that doesn't exist at the
> buoy's location.
>
> Thank you for your time. AHB appreciates your assistance
> and effort.
> Mark Opdyke
>
>
>
>
>
>
>
>

Patrick Fink <Patrick.Fink@noaa.gov>
NOAA OCS

Patrick Fink
NOAA OCS <Patrick.Fink@noaa.gov>
HTML Mail
646 Cajundome Blvd Work: 337-291-3084
Lafayette Cellular: 337-501-3097
LA
70506
Additional Information:
Last Name Fink
First Name Patrick
Version 2.1

> 2100 SW River Parkway
> Portland, Oregon 97201
> (503)866-3237
> jasc@deainc.com
> **********

Castle Eugene Parker <castle.e.parker@noaa.gov>
Physical Scientist
NOAA NOS Office of Coast Survey
Atlantic Hydrographic Branch

Castle Eugene Parker
Physical Scientist <castle.e.parker@noaa.gov>
NOAA NOS Office of Coast Survey
Atlantic Hydrographic Branch
439 West York Street Fax: 757-441-6601
Norfolk Work: 757-441-6413
Virginia
23510
Additional Information:
Last Name Parker
First NameCastle Eugene
Version 2.1

AHB Pre-Compilation Plan: H11623

REGISTRY #: H11623
PROJECT NUMBER: OPR-S-J977-KR-DEA
FIELD UNIT: DEA
Pre-Compiler: G. Parker

Milestones	File Name
Combined Surface Creation	***H11623_VBES-MBES_Comb2m.hns***
Shifted Surface	***H11623_VBES-MBES_Comb2m_shifted_interp.hns***
Contour Layer	H11623_ESAR_Features_HOB.hob Layer: DEPCNT
Survey Scale Soundings	H11623_SGSL_VBESMBES_8mm_10kScale.hob
Chart Scale Soundings	H11623_SGSL_CS_20mm_40kScale.hob
Feature Layer	H11623_ESAR_Features_HOB.hob H11623_BlueNote.hob
Meta-objects Layer	H11623_H-Cell.hob Layers: M_QUAL & M_COVR
Content Review	

Pre-Compilation Notes:

1. Source Surface Models (Skin Of The Earth)
    a. VBES: Created an Uncertainty surface, then extracted the Shoal layer, then expanded the layering to make the Shoal layer a Depth layer for BAG creation. Named: ***H11623_VBES_2m_Final.hns***
    b. MBES: Three 0.5m grids were combined into one 0.5m grid. Named: ***H11623_MB_combined.hns***
    c. Combined Grid: H11623 combined grid using the VBES (Depth=aka Shoal) grid with the MBES (Depth) grid at 2m resolution. Named: ***H11623_VBES-MBES_Comb2m.hns***

2. Soundings:
    a. SS: extracted from the ***H11623_VBES_MBES_Comb2m.hns*** grid using 8mm @ 10k Scale (~80m spacing)
    b. CS: extracted from the ***H11623_VBES_MBES_Comb2m.hns*** grid using 20mm@40k Scale (~800m spacing)

3. Features:
    a. H11623_ESAR_Features_HOB.hob
        1. BCNSPP
        2. DEPARE
        3. DEPCNT (contour intervals: 0.000, 0.914, 1.829, 3.658, 5.486
        4. OBSTRN
        5. PILPNT
        6. SBDARE
        7. WRECKS
    b. H11623_BlueNote.hob
        1. AWOIS
        2. DISPROVALS
        3. RETAIN as charted
        4. DtoNs

ATLANTIC HYDROGRAPHIC BRANCH
EVALUATION REPORT to ACCOMPANY
SURVEY H11623 (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 (AHB):

CARIS HIPS/SIPS version 6.1 SP1 HF 1-13
CARIS Bathy Manager version 2.1 HF 1-6
DKART INSPECTOR, version 5.0 Build 732 SP1

B.2. QUALITY CONTROL

B.2.1. H-Cell

The AHB source depth grid for the survey's nautical chart update product referenced a 0.5m resolution multibeam development grid and a 2m resolution Vertical Beam Echo Sounder (VBES) grid. The Shoal layer of the VBES 2m grid was extract and extended to include the Depth layer for BAG export. The finalized VBES 2m resolution extended Depth layer and the finalized 0.5m resolution Depth MB layer were combined to a resolution of 2m. The survey scale selected soundings were extracted from the 2m combined surface. The chart scale selected soundings are a subset of the survey scale selected soundings. The surface model was referenced when selecting the chart scale soundings, to ensure that the selected soundings portrayed the bathymetry within the common area.

Depth curves (DEPCNT) were created from a 2m surface grid that was shifted vertically -0.229m (upward) and interpolated in order to facilitate continuous depth curves as opposed to the skunk stripe source bathy grid. H11623's H-Cell includes the 6-ft and 12-ft depth curves for reference only.

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

The completed H-Cell was exported as a Base Cell File (ENC.000) in S-57 format with all values in metric units. The metric equivalent ENC.000 file was then converted to NOAA chart units (ENC_CS.000) with all values measured in feet following NOAA sounding rounding rules.

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

The H11623 CARIS H-Cell final deliverables include the following products:

US511623_CS.000	1:40.000 Scale	H11623 H-Cell with Chart Scale Selected Soundings
US511623_SS.000	1:10,000 Scale	H11623 Selected Soundings (Survey Scale)
H11623_BlueNotes.000	1:40,000 Scale	H11623 Cartographic Notes

B.2.3 Junctions

Survey sheet limits H11623 (2007) junctions with contemporary surveys H11624 (2007) and H11625 (2007). Although the survey sheet limits have common overlap, no hydro limits junction with H11623. The area between H11623 and H11624 is separated by the USACE Mobile Bay Channel (dredged area).

D. RESULTS AND RECOMMENDATIONS

D.1 CHART COMPARISON **11377_1 (7th Edition,Oct/07)**
Corrected through NM Feb 16, 2008
Corrected through LNM Feb 2, 2008
Scale 1: 40,000

ENC Comparison **US5AL13M**
Mobile Bay Approaches and Lower Half
Edition 19
Update Application Date 2008-03-31
Issue Date 2008-04-30
Chart 11377

D.1.1 Hydrography

The charted hydrography originates with prior surveys and requires no further consideration. The hydrographer makes adequate chart comparisons in the Descriptive Report (DR) section “D” and Appendix 1& 2 with the exception of feature noted in the following sections.

D1.g. New Submerged Features

A 6-ft Obstruction located within the KR submitted feature file was not discussed in H11623 Descriptive Report or Appendices. It is recommended to chart a 6-ft Obstruction (2.047m / 6.715-ft) in Latitude 30°24'46.053"N, Longitude 088°03'50.830"W.

D2. ADDITIONAL RESULTS

D2.i Charted Day Marks

The following table lists charted White Beacons (W Bn) which are considered disproved by H11623 survey data. The listed features were not addressed within the content of H11623's Descriptive Report. It is recommended to delete the listed beacons that remain on Chart 11377_1 and ENC US5AL13M. The White Beacons recommended for deletion from the ENC and chart are spatially represented in the H11623 Bluenotes.000 deliverable.

Latitude (N)	Longitude (W)	Cartographic Action
30-20-36.268	088-06-20.672	Delete Charted White Beacon
30-20-35.036	088-06-08.106	Delete Charted White Beacon
30-20-04.680	088-06-07.442	Delete Charted White Beacon
30-19-39.162	088-06-07.114	Delete Charted White Beacon
30-19-24.833	088-05-51.912	Delete Charted White Beacon
30-19-26.117	088-05-45.831	Delete Charted White Beacon
30-19-11.146	088-05-42.051	Delete Charted White Beacon
30-19-02.877	088-05-42.544	Delete Charted White Beacon
30-18-50.900	088-05-45.667	Delete Charted White Beacon
30-18-43.058	088-05-58.157	Delete Charted White Beacon
30-18-32.007	088-06-20.754	Delete Charted White Beacon
30-18-27.373	088-06-36.449	Delete Charted White Beacon
30-18-20.671	088-06-51.897	Delete Charted White Beacon
30-18-03.273	088-07-07.181	Delete Charted White Beacon
30-17-49.224	088-07-06.610	Delete Charted White Beacon
30-17-40.287	088-07-05.951	Delete Charted White Beacon
30-19-52.462	088-06-07.116	Delete Charted White Beacon
30-20-12.805	088-06-07.114	Delete Charted White Beacon
30-18-38.851	088-06-09.743	Delete Charted White Beacon
30-18-15.759	088-07-08.281	Delete Charted White Beacon

Chart 11377 contains notation associated with the White Beacons (W Bn) listed above. The notation indicates the beacons exist as Private Aids (Priv aids). The beacons documented from survey H11623 are private as they were established by the state of Alabama Marine Resources Division with the intent of delineating prohibited shellfishing areas and not intended to be used as a navigational aids. AHB recommends deleting the notation "Priv aids" and appending the notation "Priv beacons" to the chart at the same location. Also refer to H11623 Bluenotes deliverable.

D2.j Charted ENC US5AL13M Feature: DAYMAR

Danger to Navigation items 1.1 -1.16, 2.4, and 2.7 (Appendix 1) were submitted from the field unit to AHB for review and submission to Marine Chart Division, Danger to Navigation Section. These features were submitted as Special Purpose Beacons. When applied to the ENC US5AL13M, the feature object Day Mark (DAYMAR) was added to the Special Purpose Beacons (BCNSPP). These beacons are not considered navigational aids and only considered as a marker delineating or defining prohibited shrimping area. It is recommended to delete the charted Day Marks (DAYMAR) associated with the Special Purpose Beacons (BCNSPP). H11623 chart scale H-Cell properly displays these features such that they serve their intended purpose. The category of special purpose mark is attributed as a notice mark and not intended to serve as a navigational aid.

D.3. MISCELLANEOUS

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

D.4. ADEQUACY OF SURVEY

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

APPROVAL SHEET
H11623

Initial Approvals:

The completed survey has been inspected with regard to survey coverage, delineation of depth curves, critical depth selection, 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.

Digitally signed by Castle Eugene Parker
DN: cn=Castle Eugene Parker, c=US, o=NOAA, ou=Atlantic Hydrographic Branch, email=castle.e.parker@noaa.gov
Reason: I attest to the accuracy and integrity of this document
Date: 2008.05.21 10:36:14 -04'00'

Castle Eugene Parker
Physical Scientist
Atlantic Hydrographic Branch

Shepard Smith
for Mark Opdyke
2008.05.27 15:30:31 -04'00'

Mark Opdyke
Hydrographic Intern
Atlantic Hydrographic Branch

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

Approved:

Shepard Smith
I am approving this document
2008.05.22 16:15:50 -04'00'

Shepard Smith
Lieutenant Commander, NOAA
Chief, Atlantic Hydrographic Branch

Digitally signed by Crescent Moegling
Reason: AWOIS items verified.
Date: 2008.06.30 12:52:10 -04'00'