

H11621

NOAA FORM 76-35A	
U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SURVEY	
DESCRIPTIVE REPORT	
Type of Survey	Hydrographic
Registry No.	H11621
LOCALITY	
State	Alabama
General Locality	Mississippi Sound
Sub-locality	Grand Bay to Petit Bois Pass
2006	
CHIEF OF PARTY Dean Moyles FUGRO PELAGOS, Inc	
DATE	LIBRARY & ARCHIVES

**Title Sheet (NOAA Form 77-28)**

<p>NOAA FORM 77-28 (11-72)</p> <p>U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION</p> <p>HYDROGRAPHIC TITLE SHEET</p>	<p>REGISTER NO.</p> <p>H11621</p>
<p>INSTRUCTIONS – The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office</p>	
<p>State <u>ALABAMA</u></p> <p>General Locality <u>Mississippi Sound</u></p> <p>Locality <u>Grand Bay to Petit Bois Sound</u></p> <p>Scale <u>1:10000</u> Date of Survey <u>10/04/06 – 12/15/06</u></p> <p>Instructions dated <u>June 21, 2006</u> Project No. <u>S-J977-KR-FU</u></p> <p>Vessel <u>R/V LOCATOR (CF-4540-NB) and R/V C.B.#3 (LA-5204-EU)</u></p> <p>Chief of party <u>DEAN MOYLES</u></p> <p>Surveyed by <u>REYNOLDS, GILL, MOUNT, STOCK, FARLEY, BRIGGS, POCKART, ET AL</u></p> <p>Soundings taken by echo sounder, hand lead, pole <u>ODOM DF3200 (LOCATOR - HULL MOUNT) and ODOM DF3200 (C.B.#3 - POLE MOUNT)</u></p> <p>Graphic record scaled by <u>FUGRO PELAGOS, INC. PERSONNEL</u></p> <p>Graphic record checked by <u>FUGRO PELAGOS, INC. PERSONNEL</u></p> <p>Protracted by <u>N/A</u> Automated plot by <u>N/A</u></p> <p>Verification by _____</p> <p>Soundings in _____ METERS at MLLW</p>	
<p>REMARKS: The purpose of this work is to provide NOAA with modern debris mapping survey in the area of Mississippi Sound from Grand Bay to Petit Bois Pass.</p> <p>ALL TIMES ARE RECORDED IN UTC.</p> <p><i>Remarks in red, bold italics were made during AHB processing of this survey.</i></p> <p>FUGRO PELAGOS INC 3738 RUFFIN ROAD SAN DIEGO, CA 92123</p>	



A - Area Surveyed

H11621 (Sheet A) is bound by the coordinates listed below, which encompass Grand Bay to Petit Bois Pass.

Hydrographic data collection began on October 4, 2006 and ended on December 15, 2006.

Table 1 – H11621 Sheet Limits

Sheet Limits Task Order # 1 H11621 Sheet A Scale 1:10,000		
Point #	Positions on NAD83	
	Degrees Latitude (N)	Degrees Longitude (W)
1	30°23'11.77" N	88°14'16.28" W
2	30°23'05.90" N	88°23'57.50" W
3	30°09'51.23" N	88°23'46.24" W
4	30°09'57.04" N	88°14'06.31" W

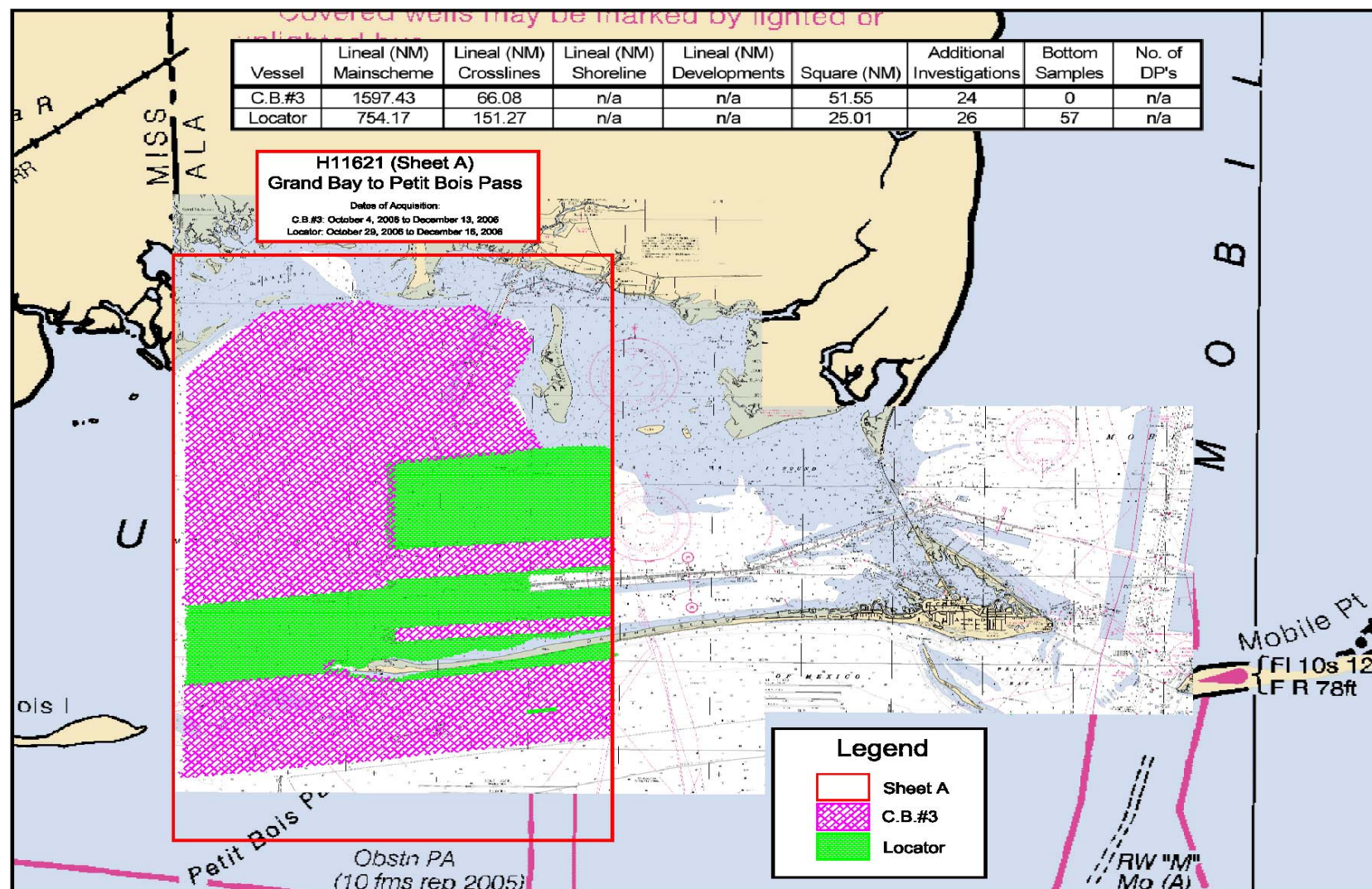


Figure 1 H11621 Area Surveyed



B – Data Acquisition & Processing

Refer to the S-J977-KR-FU Data Acquisition and Processing Report for a detailed description of all equipment, survey vessels, processing procedures and quality control features. Items specific to this survey and any deviations from the Data Acquisition and Processing Report are discussed in the following sections.

Equipment & Vessels

The R/V C.B. #3 and the R/V Locator acquired all sounding and side scan data for H11621. Both the C.B. #3, 28' in length with a draft of 9", and the Locator, 25' in length with a draft of 18", were equipped with an ODOM DF3200 single beam echosounder and a Klein model 3000 side scan sonar. The vessels were also equipped with two AML sound velocity and pressure sensors (SV&P) for sound velocity profiles. Vessel attitude and position were measured using an Applanix Position and Orientation System for Marine Vessel (POS MV 320 V4) with single beam RAW files logged by WinFrog v3.6.7 and side scan SDF files logged by SonarPro v9.6.

Refer to S-J977-KR-FU Data Acquisition & Processing Report for a complete listing of equipment and vessel descriptions.

Quality Control

Crosslines

Crosslines were planned and well distributed throughout the survey to ensure adequate crossline quality control. Total crossline length surveyed was 217.35 nautical miles or 9.2 percent of the total main scheme line length, exceeding the 8 percent planned. Each crossline was compared to all main scheme lines it intersected, using the CARIS HIPS QC report routine.

The majority of QC Reports fell below the 95 percent confidence level within the QC Report. This is associated with the condition illustrated below.

On January 26, 2007, while conducting random Quality Control Reports, unusual conditions regarding tidal information were noted and reported to Crescent Moegling of the Hydrographic Surveys Division. During field operations, it is common practice to conduct cross lines after a survey block is complete or near its completion to ensure the proper percentage ratio to main scheme lines. Once the cross lines are completed for a block, random reports are generated to ensure a 95% confidence interval, but in the case of H11621 the majority of cross lines were not conducted until the end of the project, therefore field operations were concluded when the problem was noticed.

Fugro Pelagos Inc. (FPI) sent graphics illustrating the tidal busts along with additional graphics of the data reduced via Post Processing Kinematics (PPK) to provide evidence the busts were a result of erroneous tidal data. On March 3, 2007, FPI received a revised tidal zoning scheme, which was used to re-apply the verified tidal data. After review, the new tidal zoning was found to have little or no improvement on the sounding data. On March 15, 2007, CO-OPS concluded that the tidal busts were a result of meteorological events and that nothing could be done to correct the error. NOAA then decided that the original tide and zoning information, found in the Scope of Work dated June 2006, was to be used for all final sounding data. Refer to Table 2 below which outlines the survey days affected by the erroneous tidal data.

Note: The QC reports were generated based on the given accuracy specification of:

$$\pm \sqrt{a^2 + (b * d)^2}$$

where, a = 0.5, b = 0.013 and d = depth.

However, since a variance of a difference, rather than a variance from a mean is being used, the a and b values were defined in the user defined option within the CARIS HIPS QC Report routine:

$$a = 0.5 * \sqrt{2} = 0.707$$

$$b = 0.013 * \sqrt{2} = 0.018$$

Table 2 – Survey Days affect by Erroneous Tidal Data

Survey #	Julian Day	Date (dd/mm/yyyy)	Vessel	Comments
H11621	2006-311	7/11/2006	Locator	Collected after the storm, may still be in spec
H11621	2006-312	8/11/2006	Locator	Collected after the storm, may still be in spec
H11621	2006-323	19/11/2006	CB-3/Locator	Locator Tielines
H11621	2006-324	20/11/2006	CB-3/Locator	
H11621	2006-325	21/11/2006	Locator	
H11621	2006-326	22/11/2006	CB-3/Locator	H11622 it was only in-fills done by the Locator
H11621	2006-327	23/11/2006	CB-3/Locator	
H11621	2006-328	24/11/2006	CB-3/Locator	
H11621	2006-329	25/11/2006	CB-3/Locator	
H11621	2006-330	26/11/2006	Locator	
H11621	2006-331	27/11/2006	Locator	Collected after the storm, may still be in spec
H11621	2006-335	1/12/2006	CB-3	
H11621	2006-336	2/12/2006	Locator	
H11621	2006-337	3/12/2006	CB-3/Locator	Collected after the storm, may still be in spec
H11621	2006-339	5/12/2006	CB-3/Locator	
H11621	2006-340	6/12/2006	CB-3/Locator	
H11621	2006-341	7/12/2006	CB-3	
H11621	2006-343	9/12/2006	CB-3	
H11621	2006-344	10/12/2006	CB-3	

Refer to Appendix A for a more detailed description and Tidal Data.

Survey Junctions

H11621 (Sheet A) junctions with:

Registry #	Scale	Date	Junction Side
H11622	1:10,000	2006	East

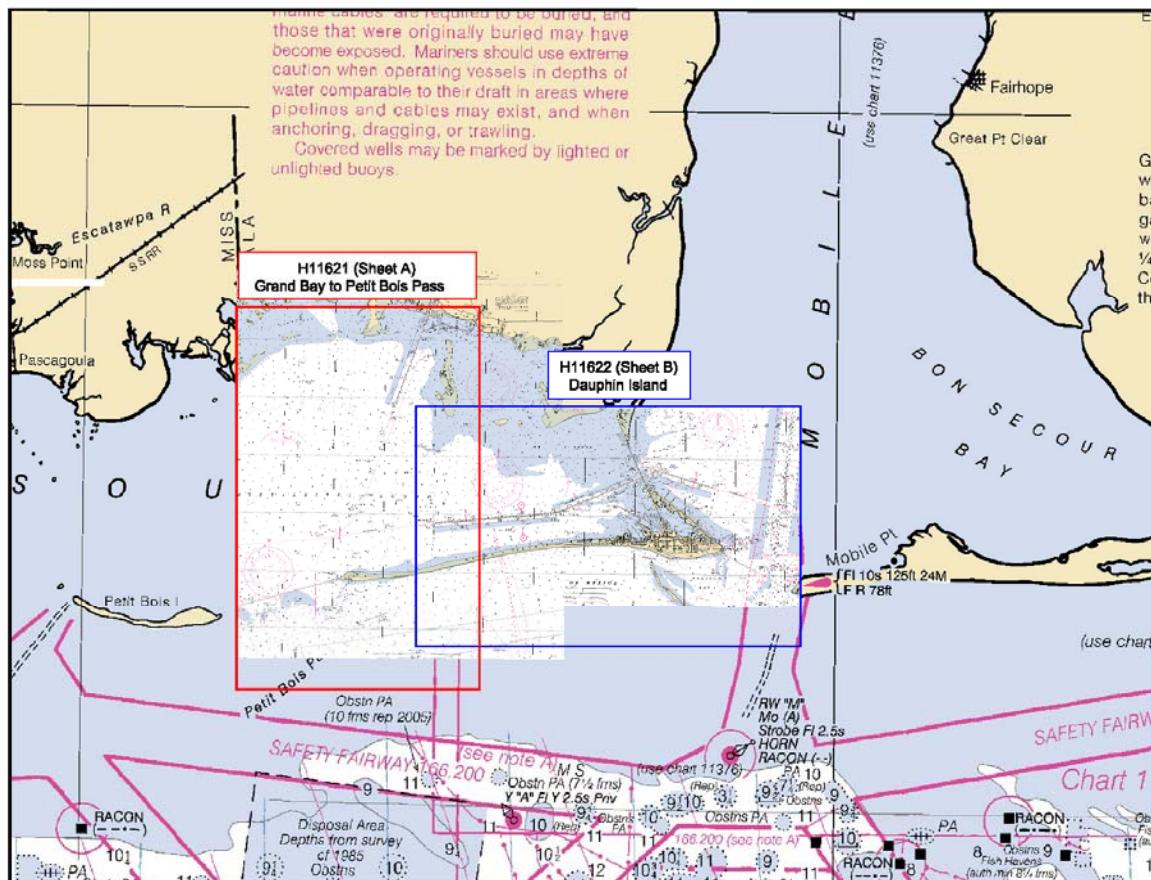


Figure 2 H11621 Survey Junctions

The surveys are in agreement along their common borders. The agreement was noted in the field using the mosaics created during side scan processing. The conformity is also apparent in the final Shoal Biased Surfaces. ***Concur with conditions. Junctioning will be accomplished when H11622 is processed. Present survey depths are in harmony with the charted hydrography to the north, south and west.***

Quality Control Checks

During the hydrographic project S-J977-KR-FU, the R/Vs C.B. #3 and Locator conducted a number of confidence checks. Confidence checks for the single beam consisted of



performing bar checks once a week and lead line check during every fueling stop or approximately every other day. The data sets collected with the ODOM DF3200 systems that were installed on the C.B. #3 and Locastor respectively, compared within 5 to 10 centimeters. Side scan sonar confidence checks were performed daily by visual confirmation that a distinct change in bottom return could be seen passing in a cross track fashion through nadir. Refer to the Data and Acquisition Processing Report Appendix IV for the Side Scan Sonar Daily Confidence Checks.

Positioning system confidence checks were conducted on a daily basis using the POS MV controller's software. The controller software had numerous real time displays that were monitored throughout the survey to ensure the positional accuracies specified in the NOS Hydrographic Surveys Specifications and Deliverables (version June 2006) were achieved. These include, but are not limited to the following: GPS Status, Position Accuracy, Receiver Status (which included HDOP) and Satellite Status. During periods of high HDOP and/or low number of available satellites survey operations were stopped.

Data Quality

In general, the single beam and side scan sonar data quality for H11621 were excellent. The only unusual condition encountered was the erroneous tidal data, which is mentioned in the Quality Control Section and the S-J977-KR-FU Horizontal & Vertical Control Report. Refer to the S-J977-KR-FU Data Acquisition and Processing Report for a detailed description of the survey equipment and methodology used over the course of this survey.

Corrections to Echo Soundings

Refer to the S-J977-KR-FU Data Acquisition and Processing Report for a detailed description of all corrections to echo soundings and lead line measurements. No deviations from the report occurred.

Data Processing

Refer to the S-J977-KR-FU Data Acquisition and Processing Report for a detailed description of the processing flow.

The final Mosaic for H11621 is called "H11621-Final-Mosaic" to show 100 percent coverage requirements were met for survey S-J977-KR-FU.

The final S-57 file for this project is called "H11621_S57.000". This file contains all features, charted features, and bottom sample feature data for this project in S-57 format as required in the Specifications and Deliverables.

Since Notebook 2.2 could not handle the high volume of single beam soundings (at a 10 m resolution) that had to be imported into the S-57 feature file, NOAA decided that it was acceptable to deliver the soundings for H11621 via a BASE Surface using CARIS HIPS &



SIPS (Named: "H11621_5m_Final"). It should be noted that this was a deviation from the Scope of Work.

C –Vertical & Horizontal Control *See also the Evaluation Report*

Refer to the S-J977-KR-FU Horizontal and Vertical Control Report for a detailed description of the horizontal and vertical control used. No deviation from the report occurred. A summary of the project's horizontal and vertical control follows.

Horizontal Control

The horizontal control datum for this survey was the North American Datum of 1983 (NAD83). All raw positions were originally collected in NAD83. It was necessary to acquire dual frequency GPS data at a known location on the ground so that a KGPS solution could be used for static settlement processing. Fugro Pelagos, Inc. established one local control point: station "FPI1", located on Dauphin Island, AL. Refer to Appendix II of the Vertical & Horizontal Control Report for results and procedures.

Vessel position was determined in real time using a Trimble Zephyr L1/L2 GPS antenna, which was connected to a Trimble BD950 L1/L2 GPS card residing in the POS MV. The POS MV was setup via the Com 2 to accept USCG differential corrections, which were output from a CSI MBX-3S Coast Guard beacon receiver. A secondary backup system utilizing output from a CSI DGPS-Max OmniStar receiver was used only in times of complete loss of USCG beacons. OmniStar produces DGPS correction service through satellite broadcasts and produces a multi-site solution based on a worldwide array of reference stations. Note: since the pseudorange corrections received by the POS MV are based on the NAD 83 position of the reference station antenna position, all positions were NAD 83.

Table 3 - DGPS Stations

Station	ID	Latitude	Longitude	Freq.	Tx. Rate	Rx. No.	Wt.
Mobile Point, USCG	813	30°13.7 N	88°01.4' W	300	100BPS	1	1
OmniStar–Eastern US	MSV-E	n/a	n/a	1530.3590	1200 baud		

Positioning system confidence checks were conducted on a daily basis using the POS MV controller's software. The controller software has numerous real time displays that were monitored throughout the survey to ensure the positional accuracies specified in the NOS Hydrographic Surveys Specifications and Deliverables (version June 2006) were achieved. These include, but are not limited to the following: GPS Status, Position Accuracy, Receiver Status (which included HDOP) and Satellite Status. During periods of high HDOP and/or low number of available satellites, survey operations were suspended.



Vertical Control

All sounding data were initially reduced to mean lower low water (MLLW) using predicted tidal data from one tide station located on Dauphin Island, AL. Tide Stations were owned and operated by the NOAA's National Ocean Service through the National Water Level Observation Program.

Table 4 - Tide Gauges

Gauge	Model	Gauge Type	Location	Latitude	Longitude	Operational
8735180	AquaTrak	Acoustic	Dauphin Island, AL	30° 15.0'N	88° 04.5' W	N/A
8741533	AquaTrak	Acoustic	Pascagoula NOAA Lab, MS	30° 21.5'N	88° 34.0' W	N/A

Table 5 - Final Tide Zones

Zone	Primary			
	Site	Number	Time	Range Ratio
CGM40	Dauphin Island, AL	8735180	-60	1.09
CGM40A	Dauphin Island, AL	8735180	-72	1.09
CGM41	Dauphin Island, AL	8735180	-54	1.05
CGM42	Dauphin Island, AL	8735180	-42	1.05
CGM42A	Dauphin Island, AL	8735180	-36	1.01
CGM43	Dauphin Island, AL	8735180	-24	1.01
CGM44	Dauphin Island, AL	8735180	-18	1.01
CGM44A	Dauphin Island, AL	8735180	-12	0.97
CGM45	Dauphin Island, AL	8735180	0	0.97
CGM46A	Dauphin Island, AL	8735180	6	1.01
CGM55	Dauphin Island, AL	8735180	12	1.09
CGM56	Dauphin Island, AL	8735180	0	1.09
CGM57	Dauphin Island, AL	8735180	-6	1.09
CGM58	Dauphin Island, AL	8735180	0	1.13
CGM59	Dauphin Island, AL	8735180	36	1.00
CGM59A	Dauphin Island, AL	8735180	-12	1.13
CGM60	Pascagoula NOAA Lab, MS	8741533	30	1.03
CGM61	Pascagoula NOAA Lab, MS	8741533	18	1.03
CGM62	Pascagoula NOAA Lab, MS	8741533	12	1.03
CGM514	Pascagoula NOAA Lab, MS	8741533	0	1.03



CGM574	Pascagoula NOAA Lab, MS	8741533	-6	1.03
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Predicted tidal data for a month long period, UTC (Central Daylight Time to UTC was +5 hours), was assembled from the National Water Level Observation Program accessed through the NOAA tides and currents website (<http://tidesandcurrents.noaa.gov/>). A cumulative file for the gauge was updated monthly by appending the new data. Refer to the S-J977-KR-FU Horizontal and Vertical Control Report for any additional tidal information.

On January 12, 2007, verified tide data were acquired from the National Water Level Observation Program accessed through the NOAA tides and currents website (<http://tidesandcurrents.noaa.gov/>). A tidal zoning file was developed and provided by NOAA. From January 15, 2007 to January 16, 2007, all sounding data were re-merged using CARIS HIPS and SIPS tide routine. The Dauphin Island, AL, 873-5180 and the Pascagoula NOAA Lab, 874-1533, tidal stations verified tides were used in final processing. Verified tidal data were used for the final Navigation Base Surfaces and S-57 Feature files.

Refer to the Vertical and Horizontal Control Report for additional tidal information, station descriptions and unusual conditions encountered throughout the project.

D – Results and Recommendations

Chart Comparison

H11621 survey was compared with charts:

Chart Number	Scale	Edition	Edition Date as of July 2006
S-J977-KR-FU			
11374	1:40,000	33 rd	Oct. 2005
11378	1:40,000	34 th	Feb. 2006
11377	1:40,000	5 th	June 2003
11373	1:80,000	45 th	Feb. 2006
11376	1:80,000	51 st	Feb. 2006
11360	1:456,394	41 st	March 2005
1115A	1:456,394	41 st	March 2005
11006	1:875,000	32 nd	August 2005

Comparison of Soundings

The soundings from chart 11374 coincide with the soundings from H11621 to within 1 to 4 feet; areas that do vary to any degree are as follows:

- Hydrographic survey H11621 revealed a depth of 5 feet in the vicinity of a 10 foot sounding on chart 11374 located at 30° 20' 14.98" N, 088° 17' 56.75" W. This area was surveyed with single beam sonar. The shoaling is centered in the area depicted

below. **Do not concur. Ten foot present survey depths found in vicinity. Update chart with present survey findings.**

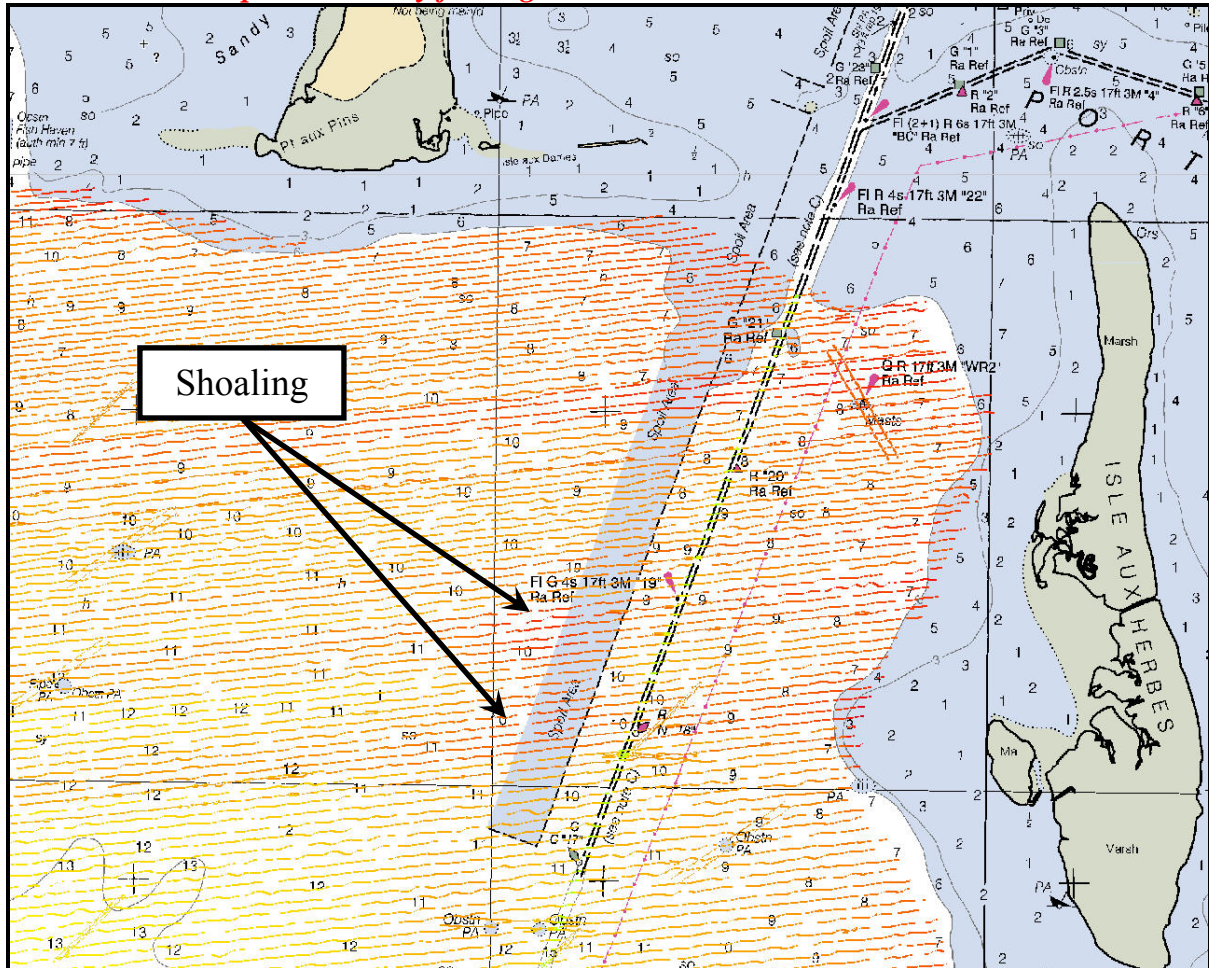


Figure 3 H11621 Chart Comparison 1

- Hydrographic survey H11621 revealed a depth of 12 feet in the vicinity of a 17 foot sounding on chart 11374 located at 30° 14'26.20" N, 088° 19'45.16" W. This area was surveyed with single beam sonar. The shoaling is centered in the area depicted below as Shoaling 1. **Do not concur. Data was rejected. Retain area as charted.**
- Hydrographic survey H11621 revealed a depth of less than 4 feet in the vicinity of a 13 foot sounding on chart 11374 located at 30°13'48.95" N, 088°20'08.94" W. This area was surveyed with single beam sonar. The shoaling is centered in the area depicted below as Shoaling 2. **Concur. Update area with present survey data.**
- Hydrographic survey H11621 revealed a depth of 4-3 feet in the vicinity of a 10 foot sounding on chart 11374 located at 30° 12'56.61" N, 088° 19'53.12" W. This area was surveyed with single beam sonar. The shoaling is centered in the area depicted below as Shoaling 3. **Concur. Update area with present survey data.**

- Hydrographic survey H11621 revealed a depth of 10 feet in the vicinity of a 4 foot sounding on chart 11374 located at 30° 13'03.61" N, 088° 21'27.35" W . This area was surveyed with single beam sonar. The deepening is centered in the area depicted below as Deepening 1. **Concur. Update area with present survey data.**
- Hydrographic survey H11621 revealed a depth of 10 feet in the vicinity of a 3 foot sounding on chart 11374 located at 30° 12'31.88" N, 088° 22'38.26" W . This area was surveyed with single beam sonar. The deepening is centered in the area depicted below as Deepening 2. **Concur. Update area with present survey data.**

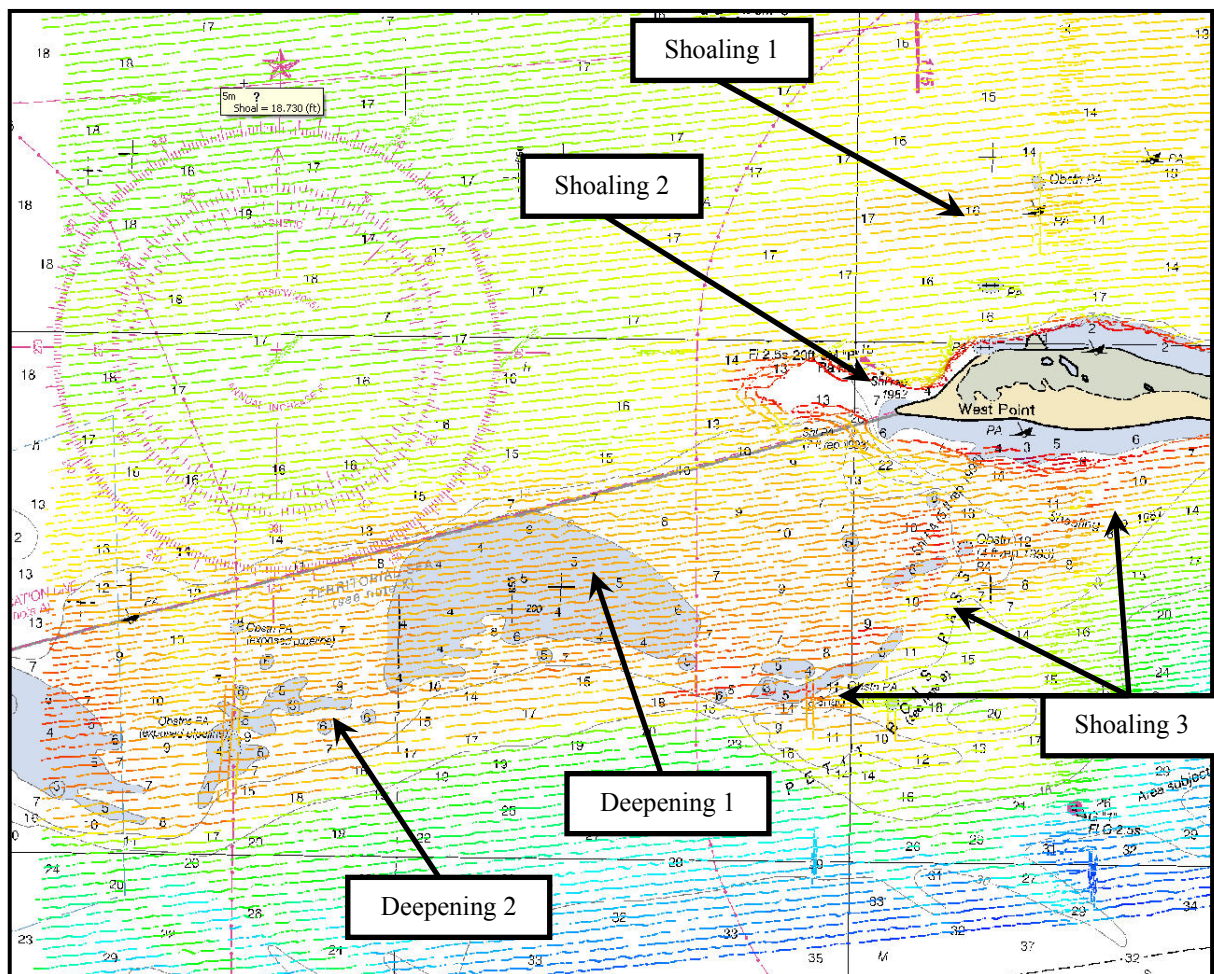


Figure 4 H11621 Chart Comparison 2

Automated Wreck and Observation Information System

There were no AWOIS items assigned to H11621. **Concur.**

Charted Features

All charted features residing on charts incorporated in Area H11621 (see Table of Charts) were investigated. All super surface charted features were investigated visually. Positioning and descriptions of super surface features was acquired and logged using the POS MV RTK GPS positioning and Win Frog v3.6.7. All subsurface features and all super surface features which were not visible were investigated using the Klein model 3000 Side Scan Sonar. Coverage of 200 percent was maintained within a 100m radius for all subsurface charted features. Positions and descriptions of existent features are found in the S-57 file. ***Concur with condition. This is the case except in the areas where data was rejected due to tidal problems.***

Charted Wreck PA (chart 1137**4**) at 30° 20' 0.96" N, 88° 22' 1.37" W was not found during this survey. Side scan sonar was utilized maintaining 200 percent coverage within a 100m radius of the feature and a wreck was not revealed at this position. Recommend removal of wreck symbol ***and the PA notation. Concur.***

Charted Wreck PA (chart 1137**4**) at 30° 20' 35.82" N, 88° 20' 56.62" W was found at the correct position. Side scan sonar was utilized maintaining 200 percent coverage within a 100m radius of the feature and a wreck was found to have the correct charted position. The wreckage covered a 6.5m by 9.2m area with an estimated MLLW clearance of ~~4.50~~ ***1.28***m. Light marker "WR6" also found at his position. Recommend update of wreck position and removal of Position Assumed ***Approximate*** (PA) comment from wreck symbol as depicted in the S-57 file. ***Concur with conditions. Revise the charted dangerous sunken wreck symbol to the present survey location and add the notation "(4 ft rep 2006)". Delete the PA notation.***

Charted Wreck PA (chart 1137 **4**) at 30° 20' 48.94" N, 88° 19' 29.68" W was not found during this survey. Side scan sonar was utilized maintaining 200 percent coverage within a 100m radius of the feature and a wreck was not revealed at this position. Recommend removal of wreck symbol. ***Concur***

Charted Pipe/Obstruction PA (chart 1137**4**) at 30° 20' 20.24" N, 88° 19' 46.21" W was found at the correct position. Side scan sonar was utilized maintaining 200 percent coverage within a 100m radius of the feature and ***an*** obstruction was found at the correct charted position. The obstruction covered a 7.5m by 19.0m area with an estimated MLLW clearance of ~~2.32~~ ***2.22***m. A visual inspection of the area revealed no existence of a pipe. Recommend update of obstruction position, removal of Position Assumed ***Approximate*** (PA) comment from the obstruction and removal of the pipe symbol as depicted in the S-57 file. ***Concur with conditions. Revise the charted dangerous submerged obstruction symbol to the present survey location and add the notation "Obstn (7 ft rep 2006)". Delete the Obstn PA notation. Delete the charted Pipe symbol and label.***

Charted Wreck PA (chart 11374) at 30° 18' 53.16" N, 88° 20' 26.51" W was found at the correct position. Side scan sonar was utilized maintaining 200 percent coverage within a 100m radius of the feature and a wreck was found to have the correct charted position. The wreckage consisted of several long narrow structures and covered a 6.0m by 8.8m area with an estimated MLLW clearance of 2.16m. Recommend update of wreck position and removal of Position Assumed ~~Assumed~~ **Approximate** (PA) comment from wreck symbol as depicted in the S-57 file. **Concur with conditions. Revise the charted dangerous sunken wreck symbol to the present survey location and add the notation "(7 ft rep 2006)". Delete the PA notation.**

Charted Obstruction PA (chart 11374) at 30° 19' 30.98" N, 88° 17' 58.94" W was not found during this survey. Side scan sonar was utilized maintaining 200 percent coverage within a 100m radius of the feature and an obstruction was not revealed at this position. Recommend removal of obstruction symbol. **Concur. Remove symbol and Obstrn PA notation.**

Charted Obstruction PA (chart 11374) at 30° 19' 30.66" N, 88° 17' 46.23" W was not found during this survey. Side scan sonar was utilized maintaining 200 percent coverage within a 100m radius of the feature and an obstruction was not revealed at this position. Recommend removal of obstruction symbol. **Concur. Remove symbol and Obstrn PA notation.**

Charted Obstruction PA (chart 11374) at 30° 19' 48.65" N, 88° 17' 01.31" W was not found during this survey. Side scan sonar was utilized maintaining 200 percent coverage within a 100m radius of the feature and an obstruction was not revealed at this position. Recommend removal of obstruction symbol. **Concur. Remove symbol and Obstrn PA notation..**

Charted **dangerous sunken** Wreck (chart 11374) at 30° 21' 21.04.45N", 88° 16' 33.4531.03W" was found at the correct position. Side scan sonar was utilized maintaining 200 percent coverage within a 100m radius of the feature and a wreck was found to have the correct charted position. The wreckage consisted of a large box structure and debris pile which covered a 10.0m by 25.1m area with an estimated MLLW clearance of 1.55m. Light marker "Q" also found at his position. Recommend removing "Mast" comment from wreck symbol. **Concur with clarification. Revise the location of the charted dangerous sunken wreck symbol to the present survey location and add the notation (5 ft rep 2006). Remove the Masts notation. Retain the charted light. Delete the charted dangerous ObstrnPA symbol and notation charted in 30° 21' 22.27"N, 88° 16' 30.63" W.**

Charted Exposed Wreck PA (chart 11374) at 30° 16' 39-19.29"N 88° 19-18'29.68"W was not found during this survey. Side scan sonar was utilized maintaining 200 percent coverage within a 100m radius of the feature and a wreck was not revealed at this position. Recommend removal of wreck symbol. **Concur. Remove Visible Wreck symbol and PA notation.**

Charted Pipe (chart 11374) at 30° 15' 18.27 " N, 88° 21' 0.32" W was not found during this survey. Side scan sonar was utilized maintaining 200 percent coverage within a 100m radius of the feature and a pipe was not revealed at this position. Visual inspection was conducted



and revealed no existence of a pipe. Recommend removal of pipe symbol. **Concur. Remove charted Pipe symbol and notation.**

Charted Wreck PA (chart 11374) at 30° 14' 31.22 —~~13~~¹³°N, 88° 20' ~~29.68~~^{29.68}—~~48.14~~^{48.14}°W was not found during this survey. Side scan sonar was utilized maintaining 200 percent coverage within a 100m radius of the feature and a wreck was not revealed at this position. Recommend removal of wreck symbol. **Concur. Remove dangerous sunken wreck symbol and PA notation.**

Charted Obstruction PA (chart 11374) at 30° 15' 32.84" N, 88° 20' 31.95" W was not found during this survey. Side scan sonar was utilized maintaining 200 percent coverage within a 100m radius of the feature and an obstruction was not revealed at this position. Recommend removal of obstruction symbol. **Concur. Remove dangerous submerged obstn symbol and notation.**

Charted Wreck ED **least depth 12 feet** (chart 11374) at 30° 15' 26.81" N, 88° 20' 10.10" W was not found during this survey. Side scan sonar was utilized maintaining 200 percent coverage within a 100m radius of the feature and a wreck was not revealed at this position. Recommend removal of wreck symbol. **Concur. Delete 12 foot dangerous sunken wreck ED symbol and notation.**

Charted Mooring Buoy "103" (chart 11374) at 30° 15' 56.76" N, 88° 19' 19.36" W was not found during this survey. Visual inspection was conducted and a mooring buoy was not revealed at this position. Recommend removal of Mooring Buoy "103" symbol. **Concur. Remove charted mooring buoy symbol and "103" notation.**

Charted Pipe (chart 11374) at 30° 15' 19.44" N, 88° 19' 30.16" W was not found during this survey. Side scan sonar was utilized maintaining 200 percent coverage within a 100m radius of the feature and a pipe was not revealed at this position. Visual inspection was conducted and revealed no existence of a pipe. Recommend removal of pipe symbol. **Concur. Remove charted Pipe symbol and notation.**

Charted Wreck PA (chart 11374) at 30° 14' 13.38" N, 88° 19' 24.59" W was not found during this survey. Side scan sonar was utilized maintaining 200 percent coverage within a 100m radius of the feature and a wreck was not revealed at this position. Recommend removal of wreck symbol. **Concur. Remove dangerous sunken wreck symbol and PA notation.**

Charted Exposed Wreck PA (chart 11374) at 30° 14' 30.05" N, 88° 19' 12.13" W was not found during this survey. Side scan sonar was utilized maintaining 200 percent coverage within a 100m radius of the feature and a wreck was not revealed at this position. Recommend removal of wreck symbol. **Concur. Remove visible wreck symbol and PA notation.**

Charted Obstruction PA (chart 11374) at 30° 14' 37.35" N, 88° 19' 12.10" W was not found during this survey. Side scan sonar was utilized maintaining 200 percent coverage within a



100m radius of the feature and an obstruction was not revealed at this position. Recommend removal of obstruction symbol. **Concur. Remove dangerous submerged obstn symbol and PA notation.**

Charted Exposed Wreck PA (chart 11374) at 30° 14' 42.56" N, 88° 18' 41.85" W was not found during this survey. Side scan sonar was utilized maintaining 200 percent coverage within a 100m radius of the feature and a wreck was not revealed at this position. Recommend removal of wreck symbol. **Concur. Remove visible wreck symbol and PA notation.**

Charted Obstruction PA (chart 11374) at 30° 16' 01.31" N, 88° 19' 00.26" W was not found during this survey. Side scan sonar was utilized maintaining 200 percent coverage within a 100m radius of the feature and an obstruction was not revealed at this position. Recommend removal of obstruction symbol. **Concur. Remove dangerous submerged obstn symbol and notation.**

Charted Exposed Wreck PA (chart 11374) at 30° 16' 19.08" N, 88° 18' 29.91" W was not found during this survey. Side scan sonar was utilized maintaining 200 percent coverage within a 100m radius of the feature and a wreck was not revealed at this position. Recommend removal of wreck symbol. **This item is discussed on page 12 paragraph 6 of this report.**

Charted Wreck PA (chart 11374) at 30° 15' 43.81" N, 88° 18' 34.68" W was not found during this survey. Side scan sonar was utilized maintaining 200 percent coverage within a 100m radius of the feature and a wreck was not revealed at this position. Recommend removal of wreck symbol. **Concur. Remove dangerous sunken wreck symbol and PA notation.**

Charted Obstruction PA (chart 11374) at 30° 15' 39.84" N, 88° 18' 00.29" W was not found during this survey. Side scan sonar was utilized maintaining 200 percent coverage within a 100m radius of the feature and an obstruction was not revealed at this position. Recommend removal of obstruction symbol. **Concur. Remove dangerous submerged obstn symbol and PA notation and (Rks rep 1994) notation.**

Charted Ruin (chart 11374) at 30° 15' 24.74" N, 88° 18' 02.85" W was found to be at a different location from the charted position. Side scan sonar was utilized maintaining 200 percent coverage within a 100m radius of the feature and ruins were found 110m to the NE of the charted position. The ruins consisted of a small oblong pile and a small linear pile of material which cover a 3.0m by 3.0m area with an estimated MLLW clearance of 3.33m. Recommend updating the ruin position as depicted in the S-57 file. **Concur. Revise charted ruins symbol and notation to present survey location of 30°15'27.33"N, 88°18'00.06"W.**

Charted Mooring Buoy "102" (chart 11374) at 30° 15' 55.32" N, 88° 16' 47.45" W was not found during this survey. Visual inspection was conducted and a mooring buoy was not revealed at this position. Recommend removal of Mooring Buoy "102" symbol. **Concur. Remove charted mooring buoy symbol and "102" notation.**

Charted Wreck PA Mast/Obstruction (*rep 7 ft*) (chart 11374) at 30° 45' 18" 55.32' 20.56" N, 88° 16' 47.45' 26.18" W was found to consist of a great number of small obstructions and one wreck strewn through the surrounding area of the wreck symbol. Side scan sonar was utilized maintaining 200 percent coverage within a 100m radius of the feature and found a large number of objects of all shapes and sizes. The wreck consisted of a large hull shaped structure covering a 14.65m by 18.31m area with an estimated MLLW clearance of 2.22m. The area was demarcated by private markers with signage denoting an artificial reef area. Also, one lighted marker was present within the debris area. Recommend updating the wreck position, removal of Mast and Position Assumed *Approximate* (PA) comments from the wreck symbol, and enlargement of obstruction area as depicted in the S-57 file. *Concur with condition. Recommend revising dangerous sunken wreck symbol to 30°18'17.95"N, 88°16'25.86"W and adding the notation Wrecks. Delete the Masts PA notation. Revise obstruction limits and location to 30°18'18.97"N, 88°16'25.45"W as shown on the H-Cell and label it Obstn (7 ft rep 2006).*

Charted Wreck PA (chart 11374) at 30° 18' 00.18" N, 88° 16' 23.83" W was not found during this survey. Side scan sonar was utilized maintaining 200 percent coverage within a 100m radius of the feature and a wreck was not revealed at this position. Recommend removal of wreck symbol. *Concur. Remove dangerous sunken wreck symbol and PA notation.*

Charted Wreck PA (chart 11374) at ~~30°13'59.06"~~ *30°13'59.05"* N, ~~88°19'25.64"~~ *88°19'28.85"* W was found at the ~~correct~~ *present survey* position. Side scan sonar was utilized maintaining 200 percent coverage within a 100m radius of the feature and a wreck was found to have the correct charted position. The wreck consisted of a large structure covering a 7.2m by 11.5m area. Through visual inspection, the wreck was found to have a long mast like structure protruding through the surface with an estimated MLLW height of -.10. Recommend removing Position Assumed *Approximate* (PA) comment from and adding Mast to wreck symbol and updating position as depicted in the S-57 file. *Concur with clarification. Revise the location of the charted dangerous sunken wreck symbol to the present survey location and add the notation Masts. Remove the PA notation.*

Charted Obstruction (chart 11374) at 30° 13' 13.04" N 88° 19' 29.84" W was not found during this survey. Side scan sonar was utilized maintaining 200 percent coverage within a 100m radius of the feature and an obstruction was not revealed at this position. Recommend removal of obstruction symbol. *Concur. Remove dangerous submerged obstn symbol and (4 ft rep 1993) notation.*

Charted Exposed Wreck PA (chart 11374) at 30° 12' 53.82" N, 88° 23' 10.84" W was not found during this survey. Side scan sonar was utilized maintaining 200 percent coverage within a 100m radius of the feature and a wreck was not revealed at this position. Recommend removal of wreck symbol. *Concur. Remove visible wreck symbol and PA notation.*

Charted Obstruction PA (chart 11374) at 30° 12' 52.56" N 88° 22' 43.14" W was not found during this survey. Side scan sonar was utilized maintaining 200 percent coverage within a 100m radius of the feature and an obstruction was not revealed at this position. Recommend removal of obstruction symbol. **Concur. Remove dangerous submerged obstn symbol and Obstn PA (exposed pipeline) notation.**

Charted Snag (chart 11374) at 30° 12' 36.62" N 88° 20' 10.96" W was not found during this survey. Side scan sonar was utilized maintaining 200 percent coverage within a 100m radius of the feature and a snag was not revealed at this position. Recommend removal of snag symbol. **Concur. Remove snag symbol and notation.**

Charted Obstruction PA (chart 11374) at 30° 12' 37.08" N 88° 19' 49.48" W was not found during this survey. Side scan sonar was utilized maintaining 200 percent coverage within a 100m radius of the feature and an obstruction was not revealed at this position. Recommend removal of obstruction symbol. **Concur. Remove dangerous submerged obstn symbol and Obstn PA and notation.**

Charted Wreck PA (chart 11374) at 30° 12' 24.30" N, 88° 18' 00.06" W was not found during this survey. Side scan sonar was utilized maintaining 200 percent coverage within a 100m radius of the feature and a wreck was not revealed at this position. Recommend removal of wreck symbol. **Concur. Remove dangerous sunken wreck symbol and PA notation.**

Charted Obstruction PA (**cov 33 ft**) (chart 11374) at 30° 12' 19.56" N 88° 17' 55.59" W was not found during this survey. Side scan sonar was utilized maintaining 200 percent coverage within a 100m radius of the feature and an obstruction was not revealed at this position. Obstruction is marked by lighted buoy "WR2". Recommend removal of obstruction symbol. **Concur. Remove dangerous submerged obstn symbol and Obstn PA (cov 33 ft) notation.**

Charted **3 foot dangerous sunken** Wreck (chart 11374) at 30° 13' 29.91" N, 88° 18' 10.57" W was found at the correct position. Side scan sonar was utilized maintaining 200 percent coverage within a 100m radius of the feature and a wreck was found to have the correct charted position. The wreckage consisted of a large intact ship with a length of 47m, a breadth of 12.5m and an estimated MLLW clearance of 3.83m. Recommend no action be taken. **Concur with clarification. The wreck was not developed with the single beam and the SSS image shadow appears to extend beyond the range. As such there is not enough data to suggest a new depth. Retain as charted.**

Charted Wreck PA (chart 11374) at 30° 12' 48.34" N, 88° 15' 30.21" W was not found during this survey. Side scan sonar was utilized maintaining 200 percent coverage within a 100m radius of the feature and a wreck was not revealed at this position. Recommend removal of wreck symbol. **Concur. Remove dangerous sunken wreck symbol and PA notation.**



Charted Wreck PA (chart 11374) at 30° 16' 13.99" N, 88° 19' 15.91" W was found at the correct position. Side scan sonar was utilized maintaining 200 percent coverage within a 100m radius of the feature and a wreck was found to have the correct charted position. The wreckage consisted of a debris field with a 9.8m by 18.0m area and an estimated MLLW clearance of 4.07m. Recommend removal of Position Assumed (PA) comment on wreck symbol. ***Concur with clarification. Feature was not developed using 200% sss or single beam and as such there is not enough information to accurately estimate a MLLW clearance depth of 4.07m. Recommend to revise the location of the dangerous sunken wreck to the present survey location and delete the PA notation.***

Charted Obstruction PA (chart 11374) at 30 ° 12' 30.35" N 88° 22' 43.04" W was not found during this survey. Side scan sonar was utilized maintaining 200 percent coverage within a 100m radius of the feature and an obstruction was not revealed at this position. Recommend removal of obstruction symbol. ***Concur. Remove dangerous submerged obstn symbol.***

Charted Obstruction PA (chart 11374) at 30 ° 12' 26.38" N 88° 22' 43.28" W was not found during this survey. Side scan sonar was utilized maintaining 200 percent coverage within a 100m radius of the feature and an obstruction was not revealed at this position. Recommend removal of obstruction symbol. ***Concur. Remove dangerous submerged obstn symbol.***

Charted Obstruction PA (chart 11374) at 30 ° 12' 24.55" N 88° 22' 43.35" W was not found during this survey. Side scan sonar was utilized maintaining 200 percent coverage within a 100m radius of the feature and an obstruction was not revealed at this position. Recommend removal of obstruction symbol. ***Concur. Remove dangerous submerged obstn symbol and the notation Obstns PA (exposed pipeline)***

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

Two Dangers to Navigation were located during the survey of H11621. The Dangers to Navigation were reported on January 24, 2007 (See Appendix I for Specific Reports).

The dangers were not submitted to MCD as NAV AIDS are AHB is not the charting authority on these. Reference email from Gene Parker in Appendix 5.

Bottom Samples

Both the R/V C.B. #3 and the R/V Locator were fitted to obtain bottom samples as specified in the Statement of Work and further communication with the COTAR. The purpose of this was to characterize H11621 for general bottom classification and retain samples for further lab analysis.

Samples were taken with a Van Veen grab sampler and position was recorded with WinFrog v3.6.7. Sediment retrieved from the sampler was analyzed and then encoded with the appropriate S-57 attributes. Samples were then retained and frozen for transport to appropriate facilities for further scrutiny. Positions and descriptions of all samples are found in Appendix V and in the H11621_S57_Features file. ***Concur***

Aids to Navigation

Throughout survey operations the R/V C.B.#3 and the R/V Locator located and positioned all charted Aids to Navigation as specified in the Statement of Work. Positions were recorded and descriptions were logged using WinFrog v3.6.7. All Aids to Navigation surveyed in H11621 were compared to current charts and Light List Volume IV to ensure they are correct and undamaged as per the June 2006 Specifications and Deliverables. ***Concur with clarification. Recommend the final charting decision of these navigation aids be deferred to MCD.***

IMPORTANT NOTE: Survey Crews reported USCG units repositioning some Aids to Navigation during the acquisition of H11621. Positioning may not be correct due to these events.

All charted Aids to Navigation were to be complete and correct in comparison with charts and Light List with the exception of the following:

- Isle Aux Herbes Lighted Mark “2” light list number 6640 (Chart 11374, Light List Volume IV) was found to be damaged and incorrectly positioned. Through visual observations the sign was found to be damaged. Through RTK GPS positioning, the charted position was found to be correct, but the light list positioning was found to be 100m to the south of the current position. The correct position was determined to be at 30° 18’ 08.78” N 88° 16’ 00.50” W. All other functions of 6640 were determined to be normal. Recommend updating position in Light List Volume IV and repairing signage.
- Bayou La Batre Lighted Channel Marker “5” light list number 6650 (Chart 11374, Light List Volume IV) was found to be incorrectly positioned. Through RTK GPS positioning, the charted position was found to be correct, but the light list positioning was found to be 80m to the NW of the current position. The correct position was determined to be at 30° 15’ 16.45” N 88° 20’ 45.19” W. All other functions of 6650 were determined to be normal. Recommend updating position in Light List Volume IV.
- Petit Bois Pass Lighted Buoy “1” light list number 6780 (Chart 11374, Light List Volume IV) was found to be incorrectly positioned. Through RTK GPS positioning, the charted position was found to be correct, but the light list positioning was found to be 65m to the SE of the current position. The correct position was determined to be at 30° 12’ 13.78” N 88° 19’ 01.04” W. All other functions of 6780 were determined to be normal. Recommend updating position in Light List Volume IV.
- Bayou La Batre Lighted Channel Marker “19” light list number 6678 (Chart 11374, Light List Volume IV) was not found. Through visual inspection of the area Marker 6678 was determined to be missing. A Danger to Navigation has been filed for this Aid to Navigation.

- Bayou La Batre Can Buoy “17” light list number 6674 (Chart 11374, Light List Volume IV) was found to be incorrectly positioned. Through RTK GPS positioning, both the charted position and the light list position were found to be 185m to the SW of the current position. The correct position was determined to be at 30° 19’ 50.17” N 88° 17’ 35.78” W . All other functions of 6674 were determined to be normal. Recommend updating position on charts and Light List Volume IV.
- Bayou La Batre Lighted Channel Marker “16” light list number 6672 (Chart 11374, Light List Volume IV) was found to be incorrectly positioned. Through RTK GPS positioning, the charted position was found to be correct, but the light list positioning was found to be 80m to the SW of the current position. The correct position was determined to be at 30° 19’ 15.4” N 88° 17’ 48.71” W . All other functions of 6672 were determined to be normal. Recommend updating position in Light List Volume IV.
- Bayou La Batre Can Buoy “15” light list number 6670 (Chart 11374, Light List Volume IV) was found to be incorrectly positioned. Through RTK GPS positioning, both the charted position and the light list position were found to be 155m to the SW of the current position. The correct position was determined to be at 30° 18’ 51.64” N 88° 18’ 02.06” W . All other functions of 6670 were determined to be normal. Recommend updating position on charts and Light List Volume IV.
- Bayou La Batre Nun Buoy “14” light list number 6668 (Chart 11374, Light List Volume IV) was found to be incorrectly positioned. Through RTK GPS positioning, both the charted position and the light list position were found to be 330m to the SW of the current position. The correct position was determined to be at 30° 18’ 29.28” N 88° 18’ 06.99” W . All other functions of 6668 were determined to be normal. Recommend updating position on charts and Light List Volume IV.
- Bayou La Batre Nun Buoy “12” light list number 6664 (Chart 11374, Light List Volume IV) was found to be incorrectly positioned. Through RTK GPS positioning, both the charted position and the light list position were found to be 175m to the SW of the current position. The correct position was determined to be at 30° 17’ 28.92” N 88° 18’ 24.36” W . All other functions of 6664 were determined to be normal. Recommend updating position on charts and Light List Volume IV.
- Bayou La Batre Can Buoy “11” light list number 6662 (Chart 11374, Light List Volume IV) was found to be incorrectly positioned. Through RTK GPS positioning, both the charted position and the light list position were found to be 158m to the SW of the current position. The correct position was determined to be at 30° 17’ 01.92” N 88° 18’ 46.87” W . All other functions of 6662 were determined to be normal. Recommend updating position on charts and Light List Volume IV.
- Bayou La Batre Nun Buoy “8” light list number 6653 (Chart 11374, Light List Volume IV) was found to be incorrectly positioned. Through RTK GPS positioning, both the charted position and the light list position were found to be 86m to the West

of the current position. The correct position was determined to be at 30° 16' 10.93" N 88° 19' 22.44" W. All other functions of 6653 were determined to be normal. Recommend updating position on charts and Light List Volume IV.

- Bayou La Batre Daybeacon "20" light list number 6680 (Chart 11374, Light List Volume IV) was not found. Through visual inspection of the area, Marker 6682 was determined to be missing. A Danger to Navigation has been filed for this Aid to Navigation.
- Bayou La Batre Lighted Channel Marker "10" light list number 6660 (Chart 11374, Light List Volume IV) was found to be incorrectly positioned. Through RTK GPS positioning, both the charted position and the light list position were found to be incorrectly placed. The correct position was determined to be at 30° 16' 28.87" N 88° 18' 58.38" W. All other functions of 6660 were determined to be normal. Recommend updating position on charts and Light List Volume IV.
- Bayou La Batre Can Buoy "7" light list number 6651 (Chart 11374, Light List Volume IV) was found to be incorrectly positioned. Through RTK GPS positioning, both the charted position and the light list position were found to be 160m to the SW of the current position. The correct position was determined to be at 30° 15' 57.06" N 88° 19' 48.37" W. All other functions of 6651 were determined to be normal. Recommend updating position on charts and Light List Volume IV.

The following Aids to Navigation were uncharted.

- An uncharted white diamond shaped lighted pile marker labeled "WR 8" was found at 30° 18' 52.80" N 88° 20' 27.88" W.
- An uncharted yellow conical lighted buoy unlabeled was found at 30° 18' 52.80" N 88° 20' 27.88" W.

Concur, defer final charting decision to MCD.

Features

All features including pilings and platforms residing on charts incorporated in Area H11621 (see Table of Charts) were investigated. All features were investigated visually. Positioning and descriptions of features was acquired and logged using the POS MV RTK GPS positioning and Win Frog v3.6.7. Positions and descriptions of existent features are found in the S-57 file.

- Charted Platform (chart 11374) at 30° 17' 26.05" N, 88° 17' 11.09" W was not found at the charted position. A visual inspection of the area did not reveal a platform at this location. Recommend removal of Platform symbol from the chart. ***Concur***
- Charted Platform (chart 11374) at 30° 17' 04.96" N, 88° 17' 14.97" W was found at the correct charted position. A visual inspection of the area revealed a single riser platform at this location. Recommend no action taken. ***Concur***

- Charted Platform (chart 11374) at 30° 16' 59.95" N 88° 17' 14.75" W was found at the correct charted position. A visual inspection of the area revealed a four legged platform at this location labeled "NW DI-MS71". Recommend no action taken. *Concur*
- Charted Platform (chart 11374) at 30° 16' 29.15" N, 88° 17' 26.07" W was found at the correct charted position. A visual inspection of the area revealed a single riser platform at this location. Recommend no action taken. *Concur*
- Charted Platform (chart 11374) at 30° 14' 57.86" N, 88° 16' 16.24" W was not found at the charted position. A visual inspection of the area did not reveal a platform at this location. Recommend removal of Platform symbol from the chart. *Concur*
- Charted Platform (chart 11374) at 30° 12' 42.95" N, 88° 14' 16.44" W was not found at the charted position. A visual inspection of the area did not reveal a platform at this location. Recommend removal of Platform symbol from the chart. *Concur*
- Charted Pile PA (chart 11374) at 30° 15' 36.19" N, 88° 14' 24.40" W was not found at the charted position. A visual inspection of the area did not reveal a piling at this location. Recommend removal of Pile PA symbol from the chart. *Concur*
- Charted Platform (chart 11374) at 30° 15' 37.78" N, 88° 14' 52.02" W was found at the correct charted position. A visual inspection of the area revealed a single riser platform at this location. Recommend no action taken. *Concur*

The following features were uncharted.

- An uncharted Platform (chart 11374) was found at location 30° 14' 58.67" N, 88° 17' 22.12" W. Through visual inspection a single riser platform was found in H11621. Recommend placement of Platform symbol as depicted in the S-57 file. *Concur*
- An uncharted Platform (chart 11374) was found at location 30° 17' 34.77" N, 88° 17' 12.54" W. Through visual inspection a single riser platform was found in H11621. Recommend placement of Platform symbol as depicted in the S-57 file. *Concur*
- An uncharted Platform (chart 11374) was found at location 30° 16' 53.12" N, 88° 17' 19.15" W. Through visual inspection a single riser platform was found in H11621. Recommend placement of Platform symbol as depicted in the S-57 file. *Concur*



E – Approval Sheet

Approval Sheet

For

H11621

Standard field surveying and processing procedures were followed in producing this survey in accordance with the following documents:

S-J977-KR-FU statement of work and hydrographic manual;
Fugro Pelagos, Inc. Acquisition Procedures (2006- NOAAAcquisitionProcedures);
Fugro Pelagos, Inc. Processing Procedures (2006-NOAAProcessingProcedures);

The data were reviewed daily during acquisition and processing.

This report has been reviewed and approved. All records are forwarded for final review and processing to the Chief, Pacific Hydrographic Branch.

Approved and forwarded,

A handwritten signature in cursive script, reading "Dean Moyles".

Dean Moyles,
Lead Hydrographer
Fugro Pelagos, Inc. Survey Party

APPENDIX I

DANGERS TO NAVIGATION REPORT

Hydrographic Survey Registry Number: H11621

Survey Title: **State:** **ALABAMA**
Locality: **Mississippi Sound**
Sub-locality: **Grand Bay to Petit Bois Pass**

Project Number: **S-J977-KR-FU**

Survey Dates: **September – December, 2006**

Depths are reduced to Mean Lower Low Water using verified tides.

Positions are based on the NAD83 horizontal datum.

CHARTS AFFECTED:

Chart	Scale	Edition	Edition Date
11374	40,000	33	October /05 (NM:10/29/2005) (LNM:10/25/2005)
11373	80,000	45	February /06 (NM:2/4/2006) (LNM:1/24/2006)

DANGER TO NAVIGATION:

<u>Feature</u>	<u>Latitude</u>	<u>Longitude</u>
Bayou La Batre Lighted Channel "19" (No. 6678)	30-20-40N	088-17-15W
Bayou La Batre Daybeacon "20" (No. 6680)	30-21-07N	088-17-02W

COMMENTS:

Both Aids to Navigation were found to be missing upon investigation.

H11621 DToNs

Registry Number: H11621
State: Alabama
Locality: Mississippi Sound
Sub-locality: Grand Bay to Petit Bois Pass
Project Number: S-J977-KR-FU
Survey Date: 12/15/2006

Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
11374	34th	10/01/2007	1:40,000 (11374_1)	USCG LNM: 11/04/2008 (11/04/2008) NGA NTM: 11/18/2006 (11/15/2008)
11374	34th	10/01/2007	1:40,000 (11374_2)	USCG LNM: 10/28/2008 (11/04/2008) NGA NTM: 11/18/2006 (11/15/2008)
11373	46th	07/01/2007	1:80,000 (11373_1)	[L]NTM: ?
11366	11th	01/01/2008	1:250,000 (11366_1)	[L]NTM: ?
11360	42nd	02/01/2007	1:456,394 (11360_1)	[L]NTM: ?
1115A	42nd	02/01/2007	1:456,394 (1115A_1)	[L]NTM: ?
11006	32nd	08/01/2005	1:875,000 (11006_1)	[L]NTM: ?
411	52nd	09/01/2007	1:2,160,000 (411_1)	[L]NTM: ?

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

Features

No.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	Obstruction 15-2	GP	4.71 m	30° 14' 47.8" N	088° 22' 00.2" W	---
1.2	Obstruction 16-2	GP	3.77 m	30° 15' 05.0" N	088° 20' 52.0" W	---
1.3	Obstruction 17-1	GP	5.20 m	30° 14' 54.1" N	088° 23' 10.4" W	---
1.4	Obstruction 19-2	GP	4.26 m	30° 15' 52.8" N	088° 20' 15.3" W	---
1.5	Obstruction 20-3	GP	4.00 m	30° 16' 14.4" N	088° 20' 02.1" W	---
1.6	Obstruction 31-1	GP	2.71 m	30° 16' 33.1" N	088° 18' 51.0" W	---
1.7	Obstruction 32-3	GP	3.22 m	30° 16' 40.8" N	088° 19' 04.2" W	---
1.8	Obstruction 33-1	GP	2.07 m	30° 16' 53.8" N	088° 17' 20.7" W	---

1.9	Obstruction 36-3	GP	2.89 m	30° 17' 10.8" N	088° 18' 53.3" W	---
1.10	Obstruction 37-2	GP	3.00 m	30° 17' 25.5" N	088° 18' 27.0" W	---
1.11	Obstruction 39-2	GP	3.75 m	30° 17' 31.1" N	088° 19' 03.9" W	---
1.12	Obstruction 41-3	GP	1.39 m	30° 18' 47.0" N	088° 16' 31.0" W	---
1.13	Obstruction 42-3	GP	1.98 m	30° 18' 48.8" N	088° 18' 24.4" W	---
1.14	Obstruction 45-3	GP	1.31 m	30° 20' 06.9" N	088° 17' 21.8" W	---
1.15	Obstruction 46-1	GP	2.34 m	30° 20' 14.8" N	088° 17' 17.7" W	---
1.16	Obstruction 47-1	GP	3.00 m	30° 19' 56.3" N	088° 22' 37.6" W	---

1 - Danger To Navigation

1.1) GP No. - 1 from H11621_DToNs.xls**DANGER TO NAVIGATION****Survey Summary**

Survey Position: 30° 14' 47.8" N, 088° 22' 00.2" W
Least Depth: 4.71 m (= 15.45 ft = 2.575 fm = 2 fm 3.45 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 2006-349.00:00:00.000 (12/15/2006)
GP Dataset: H11621_DToNs.xls
GP No.: 1
Charts Affected: 11374_1, 11373_1, 11366_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Dangerous obstruction was survey with side scan sonar and not submitted as a DToN by the field. Obstruction will be reported because the feature was not fully developed with bathymetry. Least depth estimated from side scan sonar shadow height subtracted from the closest bathy data. The least depth estimation of obstruction is 15.45ft.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11621_DToNs.xls	1	0.00	000.0	Primary

Hydrographer Recommendations

Recommend charting 15ft obstruction reported 2006. ***Concur. Add a dangerous submerged obstruction symbol and the notation 15 ft rep 2006.***

Cartographically-Rounded Depth (Affected Charts):

15ft (11374_1, 11373_1)

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

2fm 3ft (11366_1)

S-57 Data

[None]

Office Notes

Feature Images

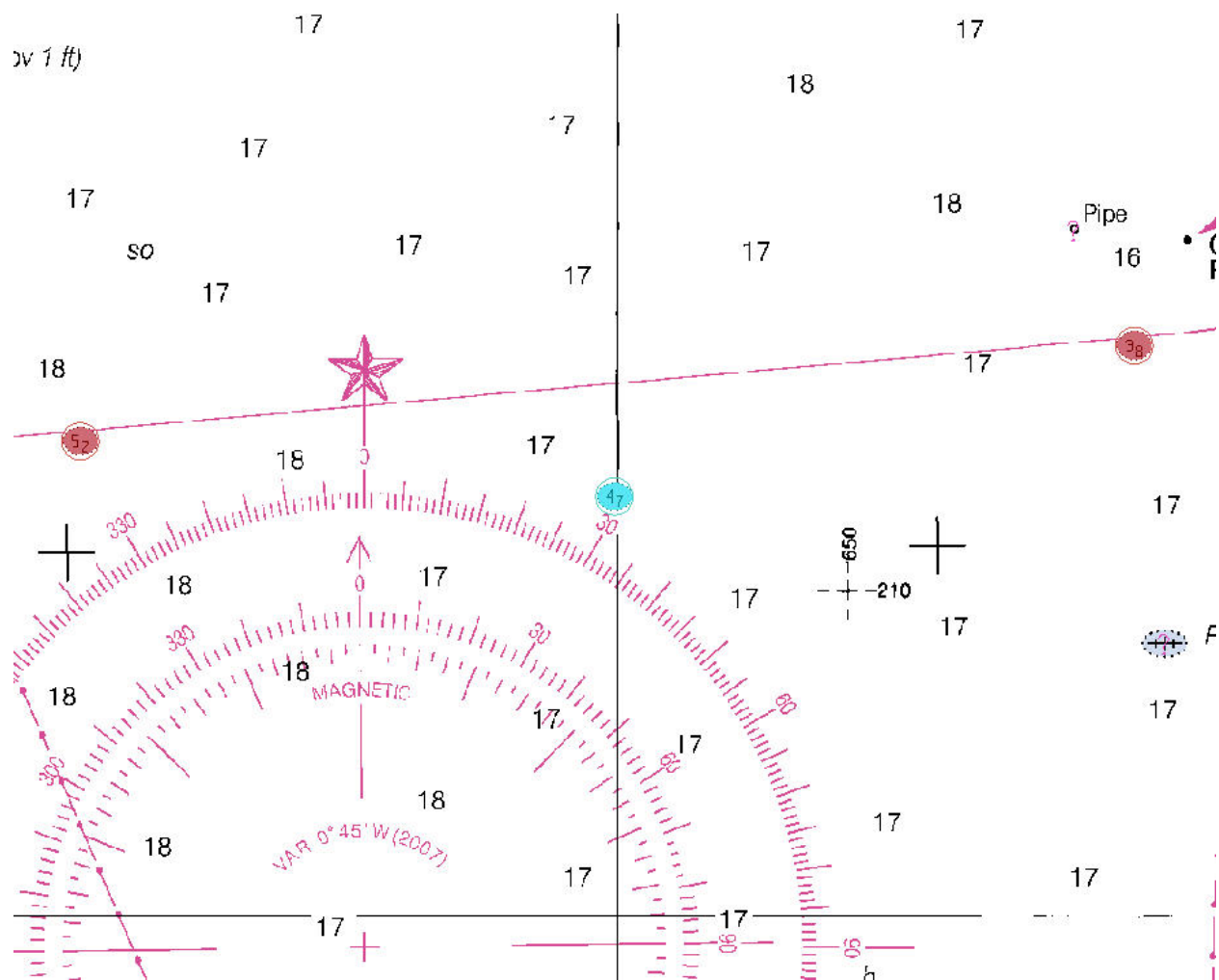


Figure 1.1.1

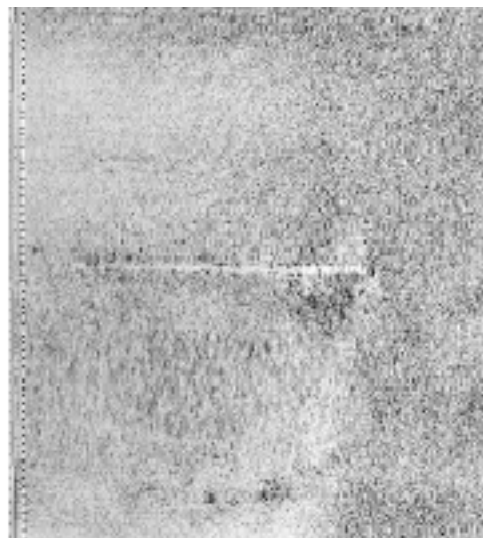


Figure 1.1.2

1.2) GP No. - 2 from H11621_DToNs.xls**DANGER TO NAVIGATION****Survey Summary**

Survey Position: 30° 15' 05.0" N, 088° 20' 52.0" W
Least Depth: 3.77 m (= 12.37 ft = 2.061 fm = 2 fm 0.37 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 2006-349.00:00:00.000 (12/15/2006)
GP Dataset: H11621_DToNs.xls
GP No.: 2
Charts Affected: 11374_1, 11373_1, 11366_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Dangerous obstruction was survey with side scan sonar and not submitted as a DToN by the field. Obstruction will be reported because the feature was not fully developed with bathymetry. Least depth estimated from side scan sonar shadow height subtracted from the closest bathy data. The least depth estimation of obstruction is 12.37ft.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11621_DToNs.xls	2	0.00	000.0	Primary

Hydrographer Recommendations

Recommend charting 12ft obstruction reported 2006. ***Concur. Add a dangerous submerged obstruction symbol and the notation 12 ft rep 2006.***

Cartographically-Rounded Depth (Affected Charts):

12ft (11374_1, 11373_1)

2fm (1115A_1, 11360_1, 11006_1, 411_1)

2fm 0ft (11366_1)

S-57 Data

[None]

Office Notes

Feature Images

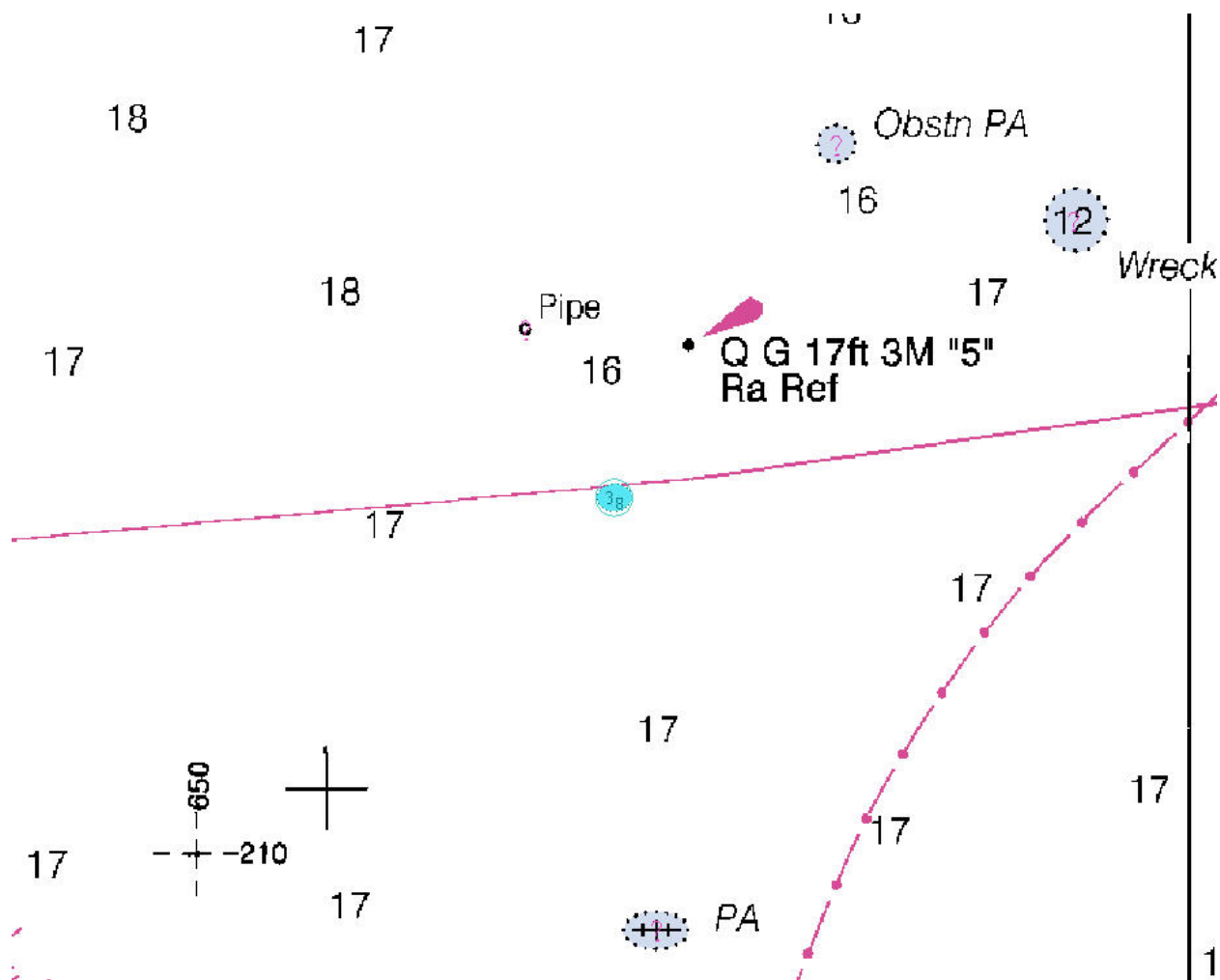


Figure 1.2.1

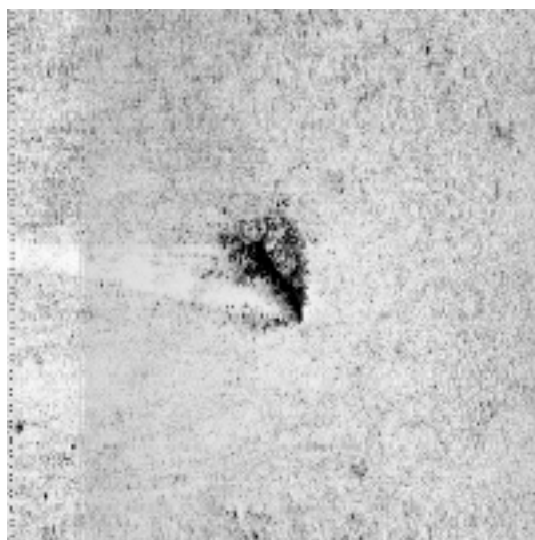


Figure 1.2.2

1.3) GP No. - 3 from H11621_DToNs.xls

DANGER TO NAVIGATION

Survey Summary

Survey Position: 30° 14' 54.1" N, 088° 23' 10.4" W
Least Depth: 5.20 m (= 17.06 ft = 2.843 fm = 2 fm 5.06 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2006-349.00:00:00.000 (12/15/2006)
GP Dataset: H11621_DToNs.xls
GP No.: 3
Charts Affected: 11374_1, 11373_1, 11366_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Dangerous obstruction was survey with side scan sonar and not submitted as a DToN by the field. Obstruction will be reported because the feature was not fully developed with bathymetry. Least depth estimated from side scan sonar shadow height subtracted from the closest bathy data. The least depth estimation of obstruction is 17.06ft.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11621_DToNs.xls	3	0.00	000.0	Primary

Hydrographer Recommendations

Recommend charting 17ft obstruction reported 2006. *Concur. Add a dangerous submerged obstruction symbol and the notation 17 ft rep 2006*

Cartographically-Rounded Depth (Affected Charts):

17ft (11374_1, 11373_1)

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

2fm 5ft (11366_1)

S-57 Data

[None]

Office Notes

Feature Images

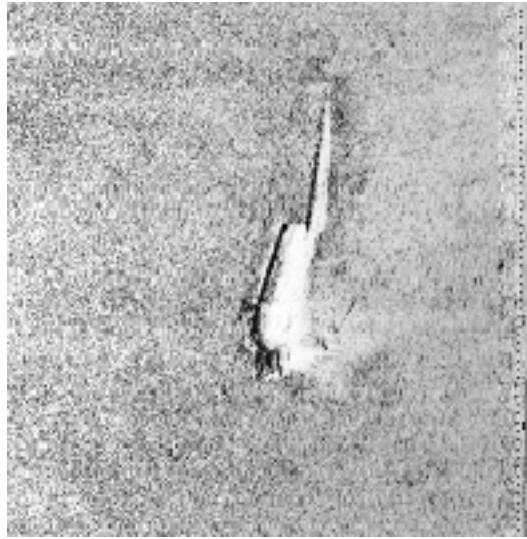


Figure 1.3.1

1.4) GP No. - 4 from H11621_DToNs.xls

DANGER TO NAVIGATION

Survey Summary

Survey Position: 30° 15' 52.8" N, 088° 20' 15.3" W
Least Depth: 4.26 m (= 13.98 ft = 2.329 fm = 2 fm 1.98 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2006-349.00:00:00.000 (12/15/2006)
GP Dataset: H11621_DToNs.xls
GP No.: 4
Charts Affected: 11374_1, 11373_1, 11366_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Dangerous obstruction was survey with side scan sonar and not submitted as a DToN by the field. Obstruction will be reported because the feature was not fully developed with bathymetry. Least depth estimated from side scan sonar shadow height subtracted from the closest bathy data. The least depth estimation of obstruction is 13.98ft.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11621_DToNs.xls	4	0.00	000.0	Primary

Hydrographer Recommendations

Recommend charting 14ft obstruction reported 2006. **Concur. Add a dangerous submerged obstruction symbol and the notation 14 ft rep 2006**

Cartographically-Rounded Depth (Affected Charts):

14ft (11374_1, 11373_1)

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

2fm 2ft (11366_1)

S-57 Data

[None]

Office Notes

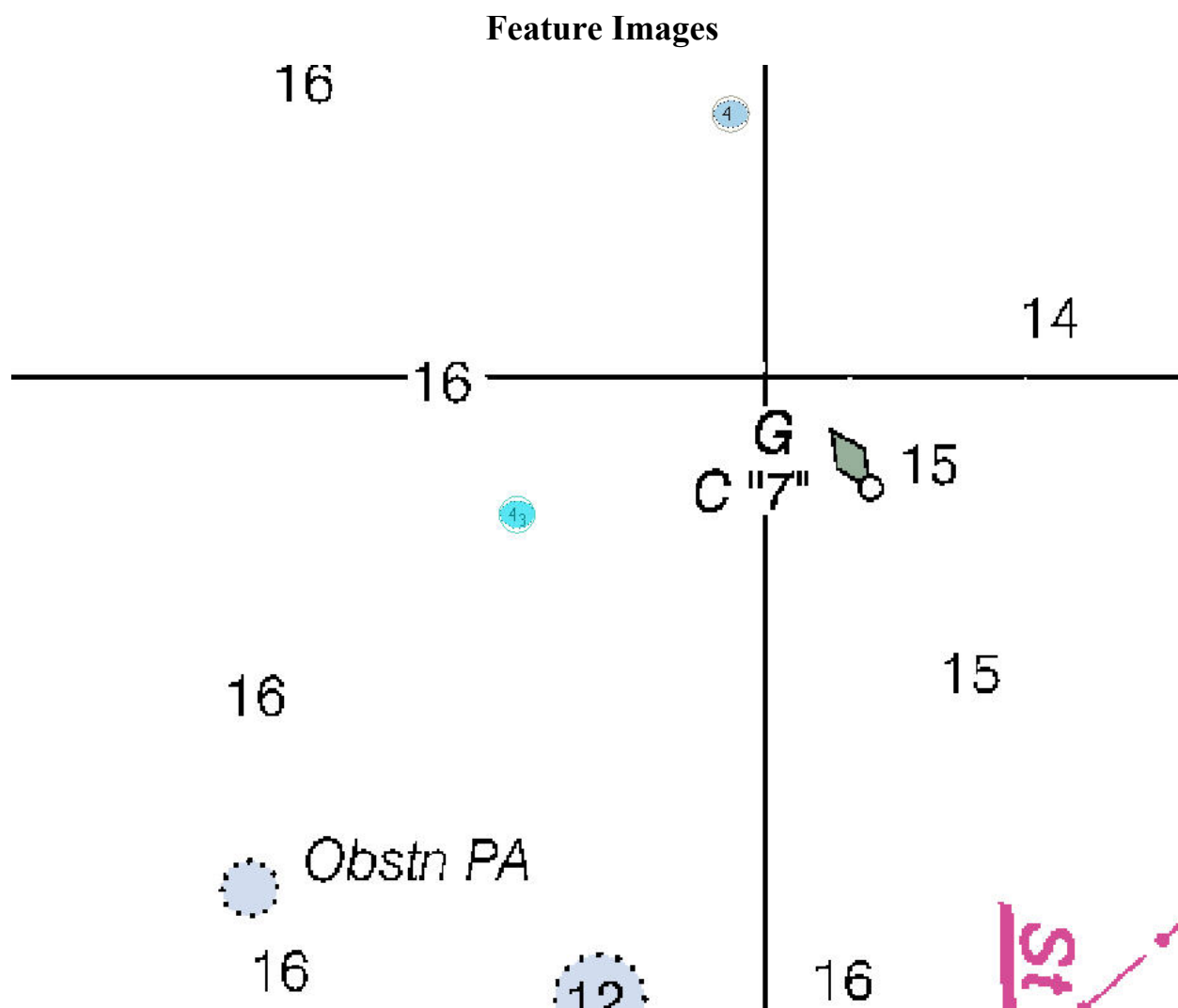


Figure 1.4.1



Figure 1.4.2

1.5) GP No. - 5 from H11621_DToNs.xls

DANGER TO NAVIGATION

Survey Summary

Survey Position: 30° 16' 14.4" N, 088° 20' 02.1" W
Least Depth: 4.00 m (= 13.12 ft = 2.187 fm = 2 fm 1.12 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2006-349.00:00:00.000 (12/15/2006)
GP Dataset: H11621_DToNs.xls
GP No.: 5
Charts Affected: 11374_1, 11374_2, 11373_1, 11366_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Dangerous obstruction was survey with side scan sonar and not submitted as a DToN by the field. Obstruction will be reported because the feature was not fully developed with bathymetry. Least depth estimated from side scan sonar shadow height subtracted from the closest bathy data. The least depth estimation of obstruction is 13.12ft.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11621_DToNs.xls	5	0.00	000.0	Primary

Hydrographer Recommendations

Recommend charting 13ft obstruction reported 2006. **Concur. Add a dangerous submerged obstruction symbol and the notation 13 ft rep 2006.**

Cartographically-Rounded Depth (Affected Charts):

13ft (11374_1, 11374_2, 11373_1)

2fm (1115A_1, 11360_1, 11006_1, 411_1)

2fm 1ft (11366_1)

S-57 Data

[None]

Office Notes

1.6) GP No. - 6 from H11621_DToNs.xls

DANGER TO NAVIGATION

Survey Summary

Survey Position: 30° 16' 33.1" N, 088° 18' 51.0" W
Least Depth: 2.71 m (= 8.89 ft = 1.482 fm = 1 fm 2.89 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2006-349.00:00:00.000 (12/15/2006)
GP Dataset: H11621_DToNs.xls
GP No.: 6
Charts Affected: 11374_1, 11374_2, 11373_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Dangerous obstruction was survey with side scan sonar and not submitted as a DToN by the field. Obstruction will be reported because the feature was not fully developed with bathymetry. Least depth estimated from side scan sonar shadow height subtracted from the closest bathy data. The least depth estimation of obstruction is 8.89ft.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11621_DToNs.xls	6	0.00	000.0	Primary

Hydrographer Recommendations

Recommend charting 9ft obstruction reported 2006. *Concur. Add a dangerous submerged obstruction symbol and the notation 9 ft rep 2006*

Cartographically-Rounded Depth (Affected Charts):

9ft (11374_1, 11374_2, 11373_1)

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

S-57 Data

[None]

Office Notes

Feature Images

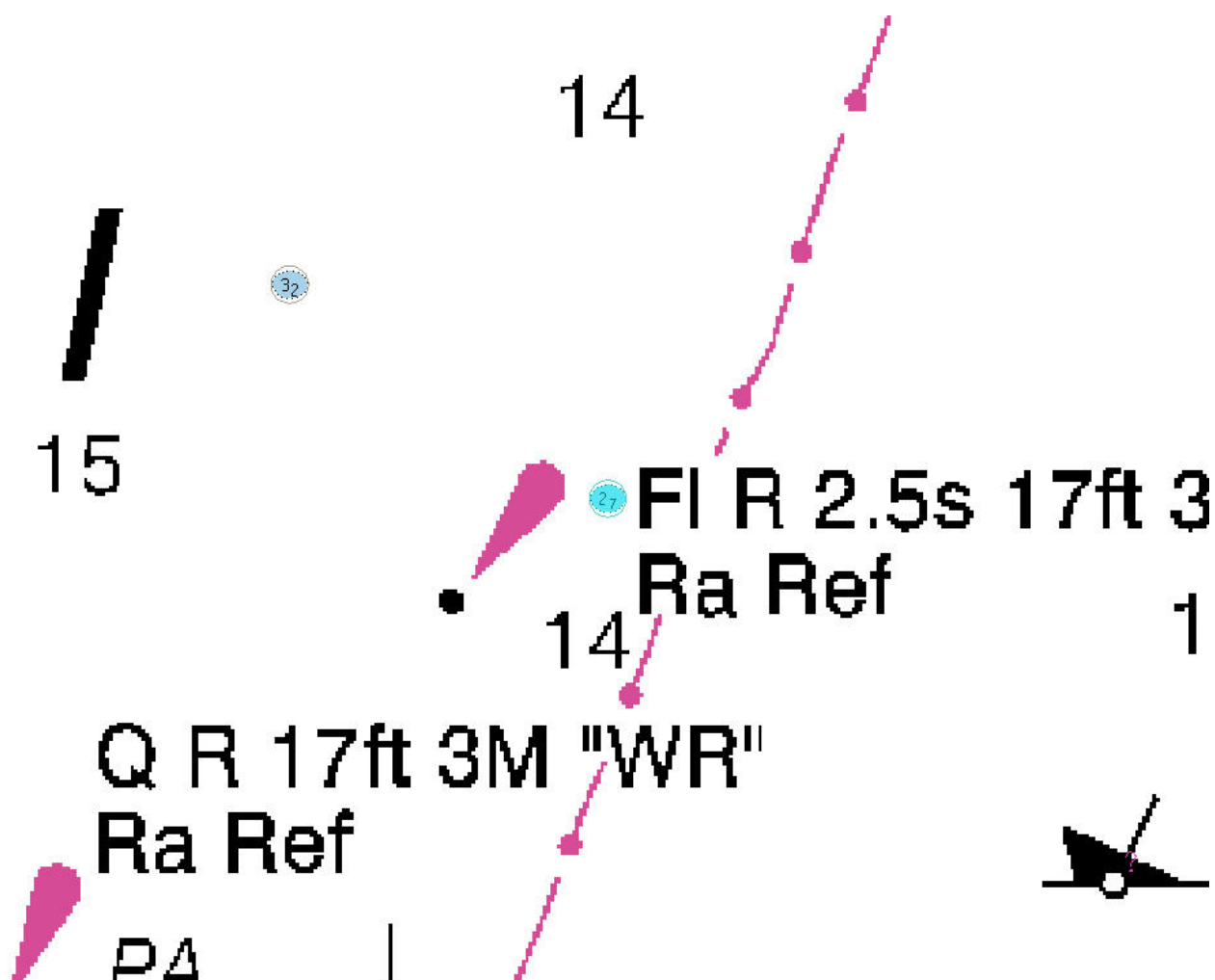


Figure 1.6.1

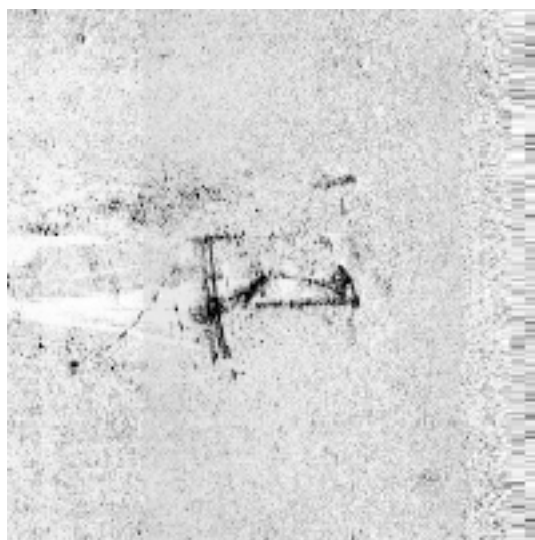


Figure 1.6.2

1.7) GP No. - 7 from H11621_DToNs.xls**DANGER TO NAVIGATION****Survey Summary**

Survey Position: 30° 16' 40.8" N, 088° 19' 04.2" W
Least Depth: 3.22 m (= 10.56 ft = 1.761 fm = 1 fm 4.56 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 2006-349.00:00:00.000 (12/15/2006)
GP Dataset: H11621_DToNs.xls
GP No.: 7
Charts Affected: 11374_1, 11374_2, 11373_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Dangerous obstruction was survey with side scan sonar and not submitted as a DToN by the field. Obstruction will be reported because the feature was not fully developed with bathymetry. Least depth estimated from side scan sonar shadow height subtracted from the closest bathy data. The least depth estimation of obstruction is 10.56ft.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11621_DToNs.xls	7	0.00	000.0	Primary

Hydrographer Recommendations

Recommend charting 10ft obstruction reported 2006. *Concur. Add a dangerous submerged obstruction symbol and the notation 10 ft rep 2006.*

Cartographically-Rounded Depth (Affected Charts):

10ft (11374_1, 11374_2, 11373_1)

1 $\frac{3}{4}$ fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

[None]

Office Notes

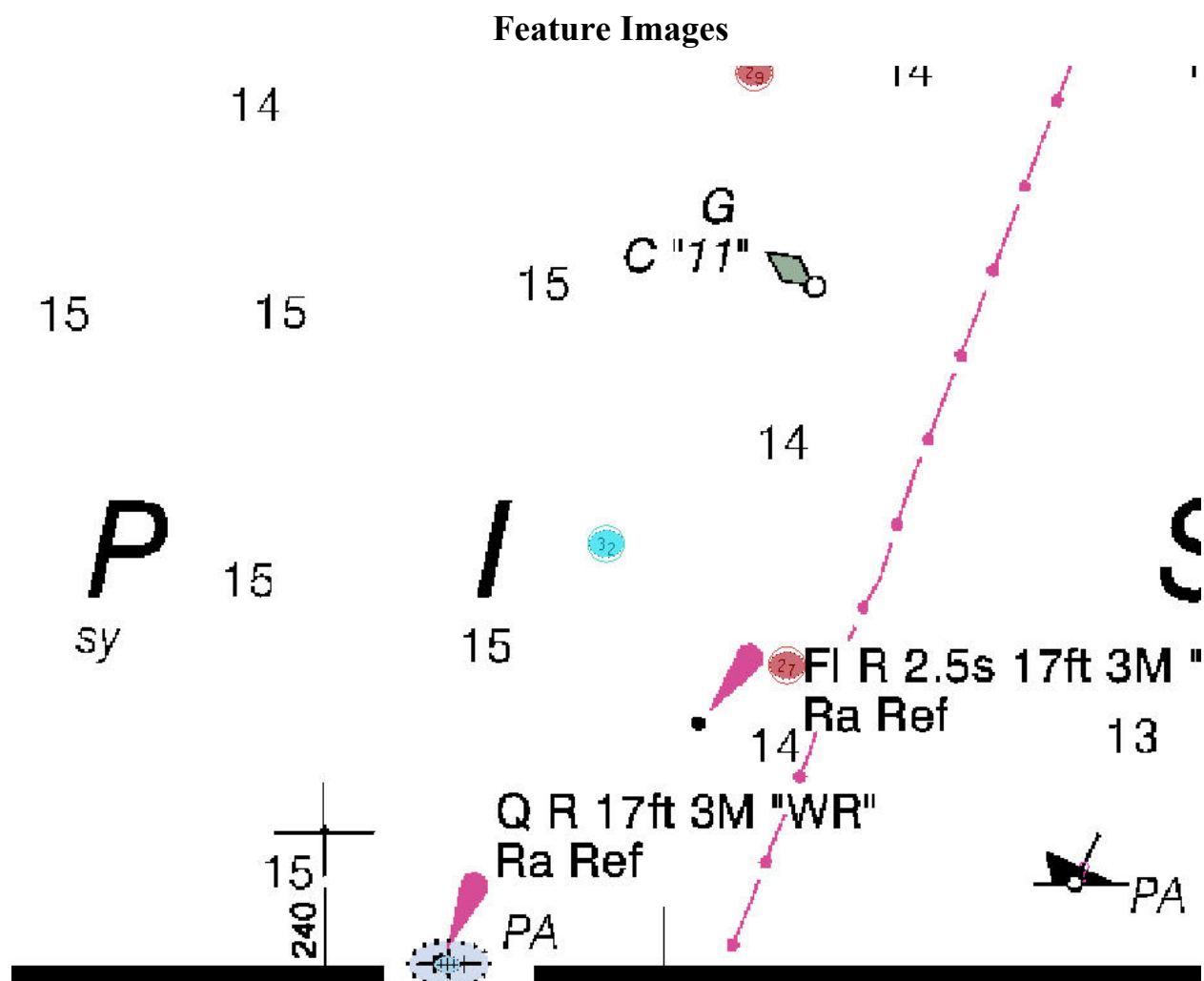


Figure 1.7.1

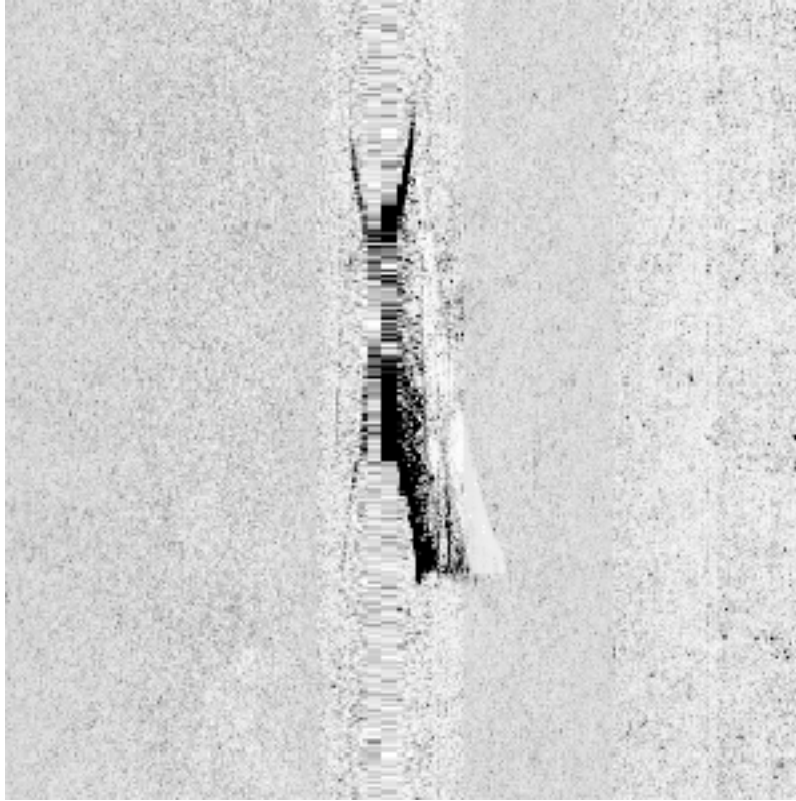


Figure 1.7.2

1.8) GP No. - 8 from H11621_DToNs.xls**DANGER TO NAVIGATION****Survey Summary**

Survey Position: 30° 16' 53.8" N, 088° 17' 20.7" W
Least Depth: 2.07 m (= 6.79 ft = 1.132 fm = 1 fm 0.79 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 2006-349.00:00:00.000 (12/15/2006)
GP Dataset: H11621_DToNs.xls
GP No.: 8
Charts Affected: 11374_1, 11374_2, 11373_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Dangerous obstruction was survey with side scan sonar and not submitted as a DToN by the field. Obstruction will be reported because the feature was not fully developed with bathymetry. Least depth estimated from side scan sonar shadow height subtracted from the closest bathy data. The least depth estimation of obstruction is 6.79ft.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11621_DToNs.xls	8	0.00	000.0	Primary

Hydrographer Recommendations

Recommend charting 7ft obstruction reported 2006. *Concur. Add a dangerous submerged obstruction symbol and the notation 7 ft rep 2006*

Cartographically-Rounded Depth (Affected Charts):

7ft (11374_1, 11374_2, 11373_1)

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

S-57 Data

[None]

Office Notes

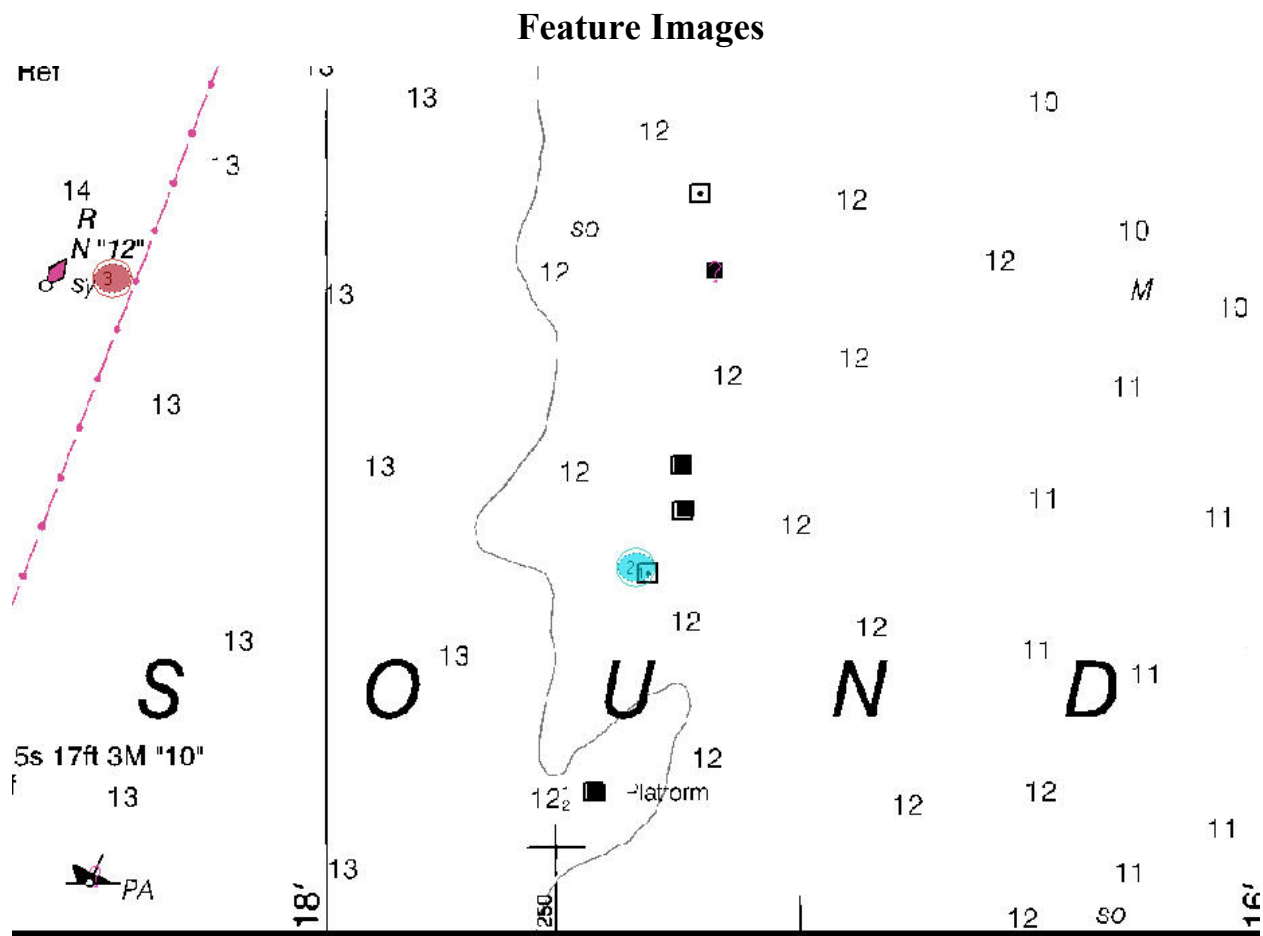


Figure 1.8.1



Figure 1.8.2

1.9) GP No. - 9 from H11621_DToNs.xls**DANGER TO NAVIGATION****Survey Summary**

Survey Position: 30° 17' 10.8" N, 088° 18' 53.3" W
Least Depth: 2.89 m (= 9.48 ft = 1.580 fm = 1 fm 3.48 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 2006-349.00:00:00.000 (12/15/2006)
GP Dataset: H11621_DToNs.xls
GP No.: 9
Charts Affected: 11374_1, 11374_2, 11373_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Dangerous obstruction was survey with side scan sonar and not submitted as a DToN by the field. Obstruction will be reported because the feature was not fully developed with bathymetry. Least depth estimated from side scan sonar shadow height subtracted from the closest bathy data. The least depth estimation of obstruction is 9.48ft.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11621_DToNs.xls	9	0.00	000.0	Primary

Hydrographer Recommendations

Recommend charting 9ft obstruction reported 2006. *Concur. Add a dangerous submerged obstruction symbol and the notation 9 ft rep 2006.*

Cartographically-Rounded Depth (Affected Charts):

9ft (11374_1, 11374_2, 11373_1)

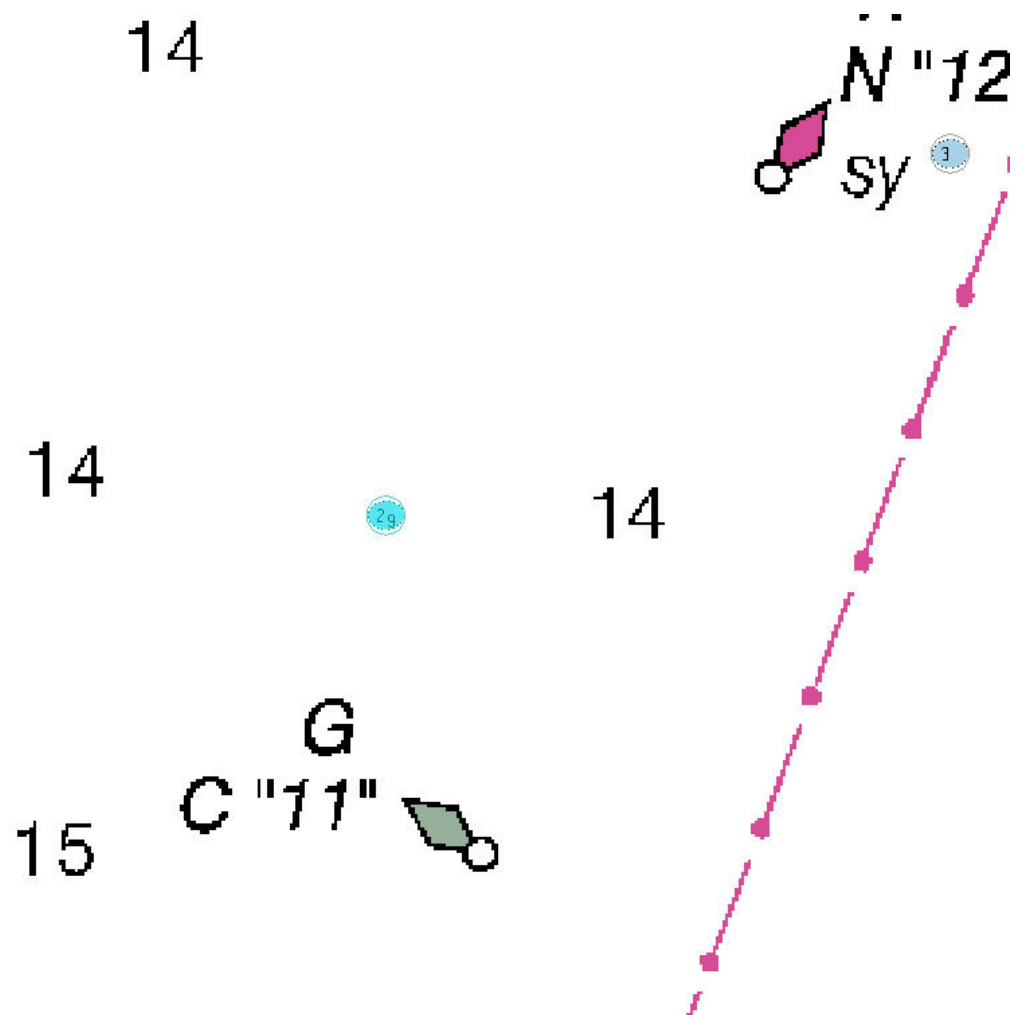
1 ½fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

[None]

Office Notes

Feature Images

*Figure 1.9.1*

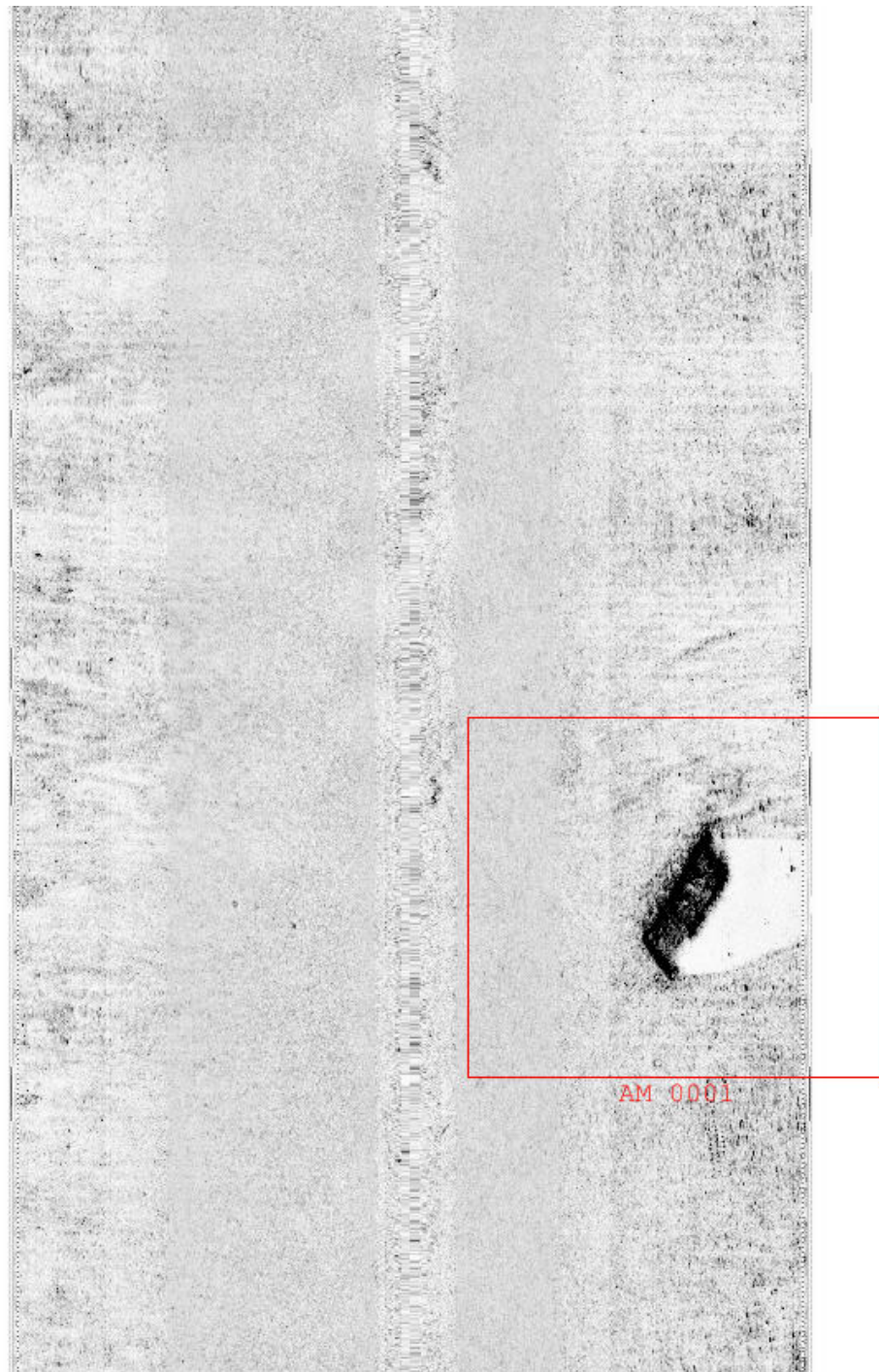


Figure 1.9.2

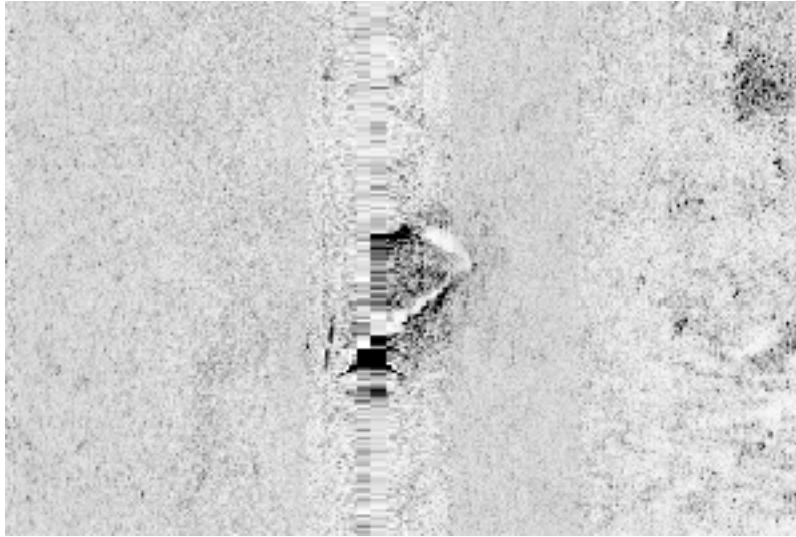


Figure 1.9.3

1.10) GP No. - 10 from H11621_DToNs.xls**DANGER TO NAVIGATION****Survey Summary**

Survey Position: 30° 17' 25.5" N, 088° 18' 27.0" W
Least Depth: 3.00 m (= 9.84 ft = 1.640 fm = 1 fm 3.84 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 2006-349.00:00:00.000 (12/15/2006)
GP Dataset: H11621_DToNs.xls
GP No.: 10
Charts Affected: 11374_1, 11374_2, 11373_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Dangerous obstruction was survey with side scan sonar and not submitted as a DToN by the field. Obstruction will be reported because the feature was not fully developed with bathymetry. Least depth estimated from side scan sonar shadow height subtracted from the closest bathy data. The least depth estimation of obstruction is 9.84ft.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11621_DToNs.xls	10	0.00	000.0	Primary

Hydrographer Recommendations

Recommend charting 10ft obstruction reported 2006. *Concur. Add a dangerous submerged obstruction symbol and the notation 10 ft rep 2006*

Cartographically-Rounded Depth (Affected Charts):

10ft (11374_1, 11374_2, 11373_1)

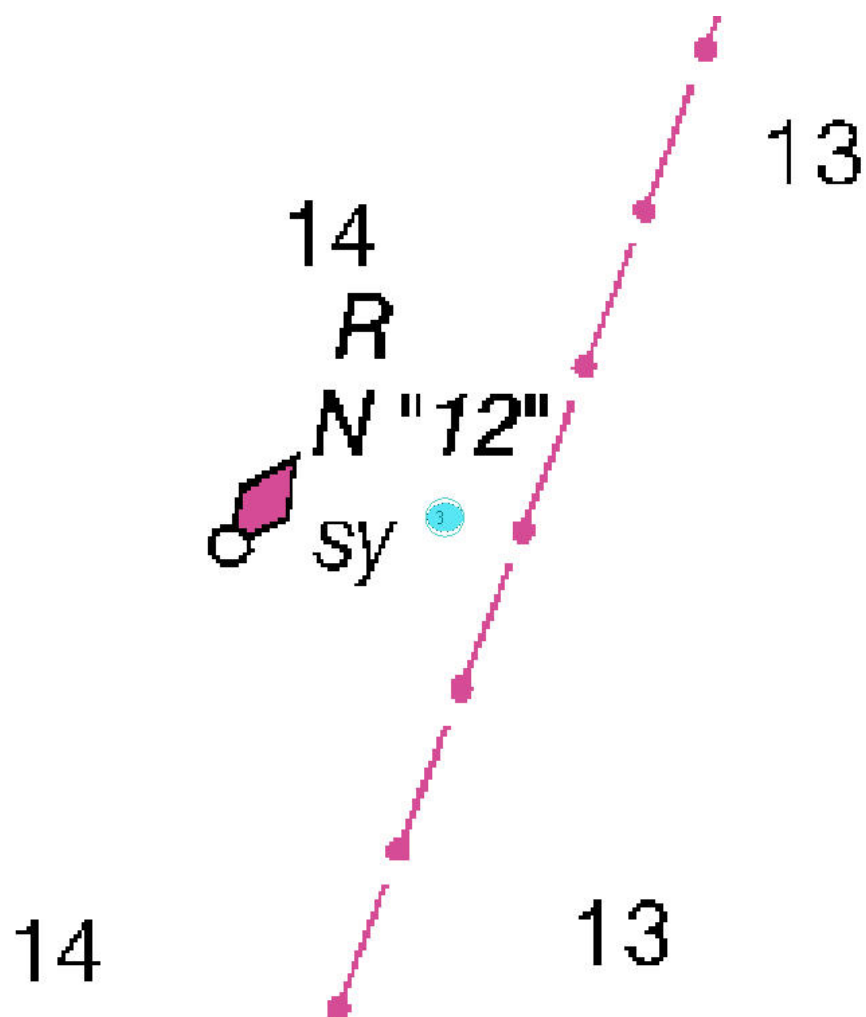
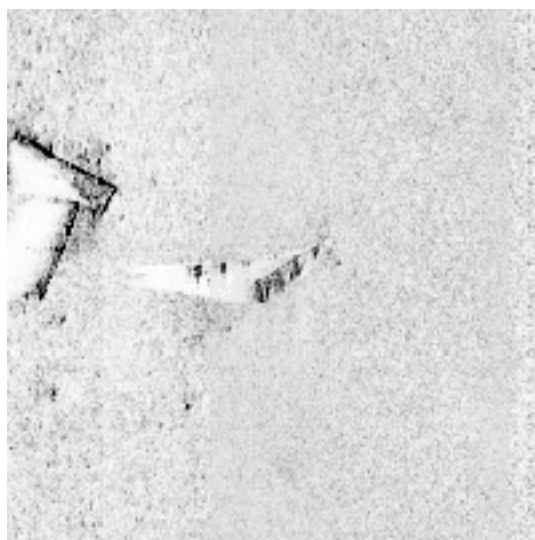
1 ½fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

[None]

Office Notes

Feature Images

*Figure 1.10.1**Figure 1.10.2*

1.11) GP No. - 11 from H11621_DToNs.xls**DANGER TO NAVIGATION****Survey Summary**

Survey Position: 30° 17' 31.1" N, 088° 19' 03.9" W
Least Depth: 3.75 m (= 12.30 ft = 2.051 fm = 2 fm 0.30 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 2006-349.00:00:00.000 (12/15/2006)
GP Dataset: H11621_DToNs.xls
GP No.: 11
Charts Affected: 11374_1, 11374_2, 11373_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Dangerous obstruction was survey with side scan sonar and not submitted as a DToN by the field. Obstruction will be reported because the feature was not fully developed with bathymetry. Least depth estimated from side scan sonar shadow height subtracted from the closest bathy data. The least depth estimation of obstruction is 12.3ft.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11621_DToNs.xls	11	0.00	000.0	Primary

Hydrographer Recommendations

Recommend charting 12ft obstruction reported 2006. ***Do not concur. Feature appears to be an exposed pipe leaking gas. It is recommended that the owner be notified so that it can be removed or repaired.***

Cartographically-Rounded Depth (Affected Charts):

12ft (11374_1, 11374_2, 11373_1)

2fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

[None]

Office Notes

Feature Images

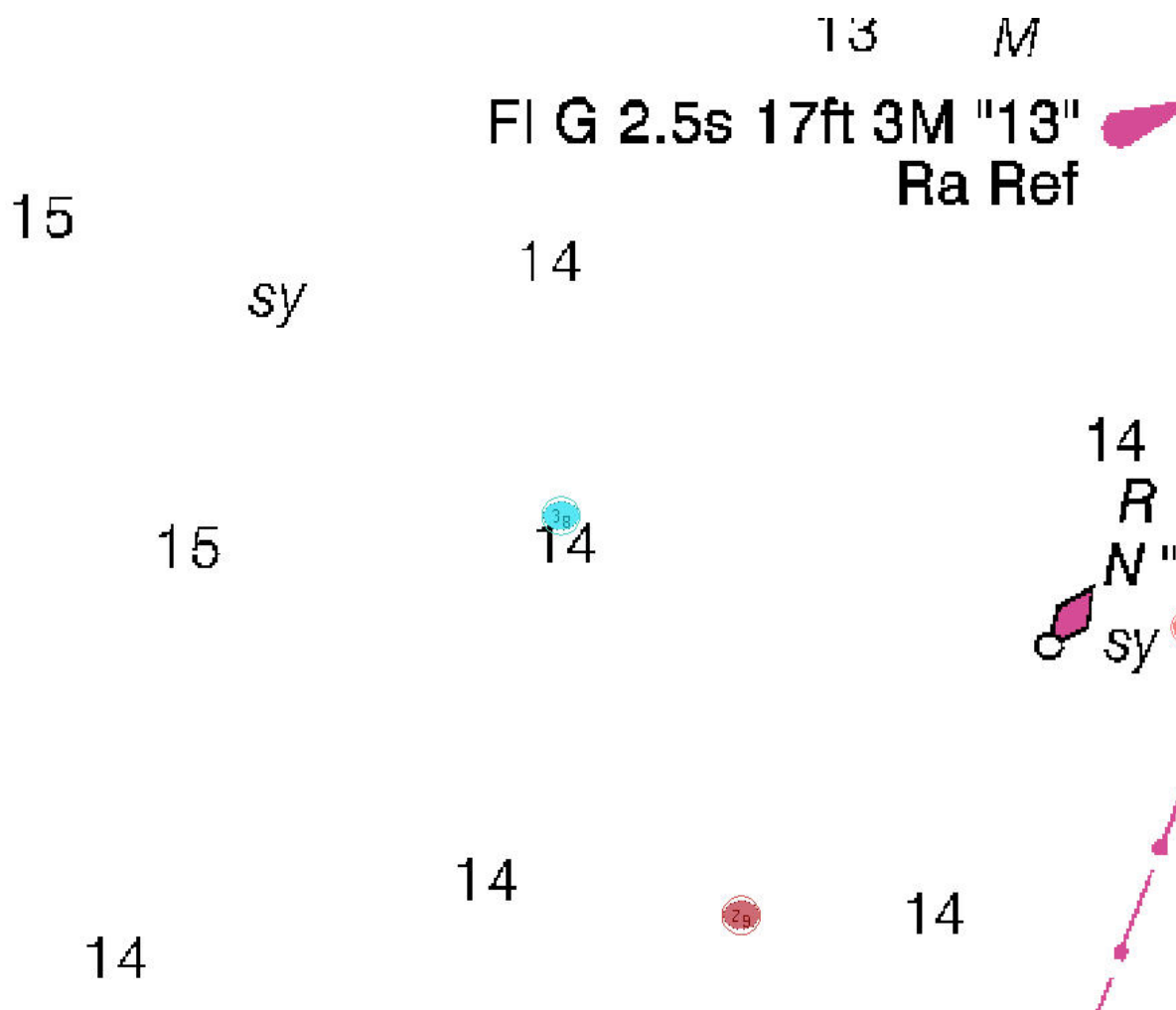


Figure 1.11.1



Figure 1.11.2

1.12) GP No. - 12 from H11621_DToNs.xls**DANGER TO NAVIGATION****Survey Summary**

Survey Position: 30° 18' 47.0" N, 088° 16' 31.0" W
Least Depth: 1.39 m (= 4.56 ft = 0.760 fm = 0 fm 4.56 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 2006-349.00:00:00.000 (12/15/2006)
GP Dataset: H11621_DToNs.xls
GP No.: 12
Charts Affected: 11374_2, 11373_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Dangerous obstruction was survey with side scan sonar and not submitted as a DToN by the field. Obstruction will be reported because the feature was not fully developed with bathymetry. Least depth estimated from side scan sonar shadow height subtracted from the closest bathy data. The least depth estimation of obstruction is 4.56ft.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11621_DToNs.xls	12	0.00	000.0	Primary

Hydrographer Recommendations

Recommend charting 4ft obstruction reported 2006. ***Do not concur. Feature appears to be an exposed pipe leaking gas.***

It is recommended that the owner be notified so that it can be removed or repaired.

Cartographically-Rounded Depth (Affected Charts):

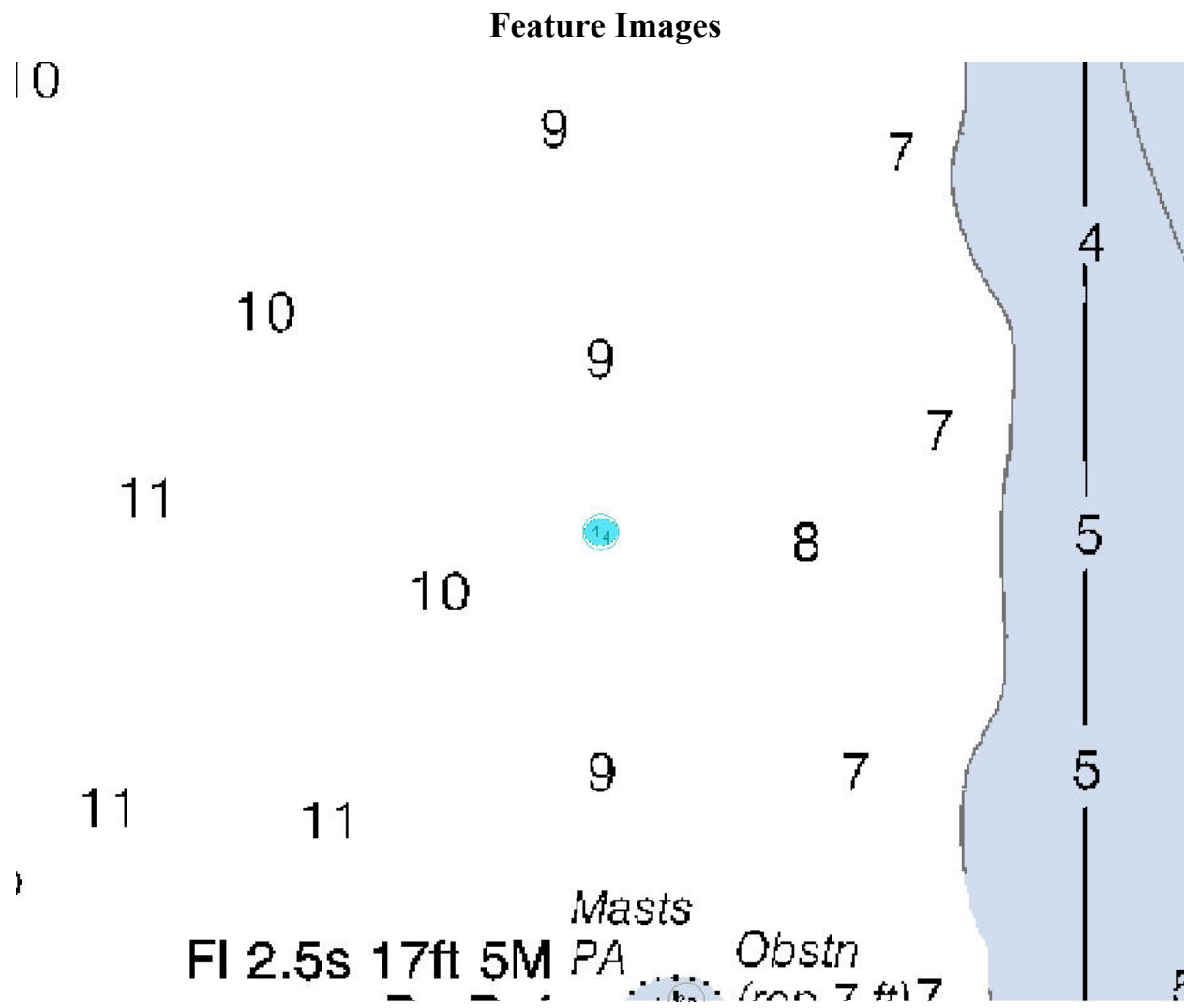
4ft (11374_2, 11373_1)

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

S-57 Data

[None]

Office Notes



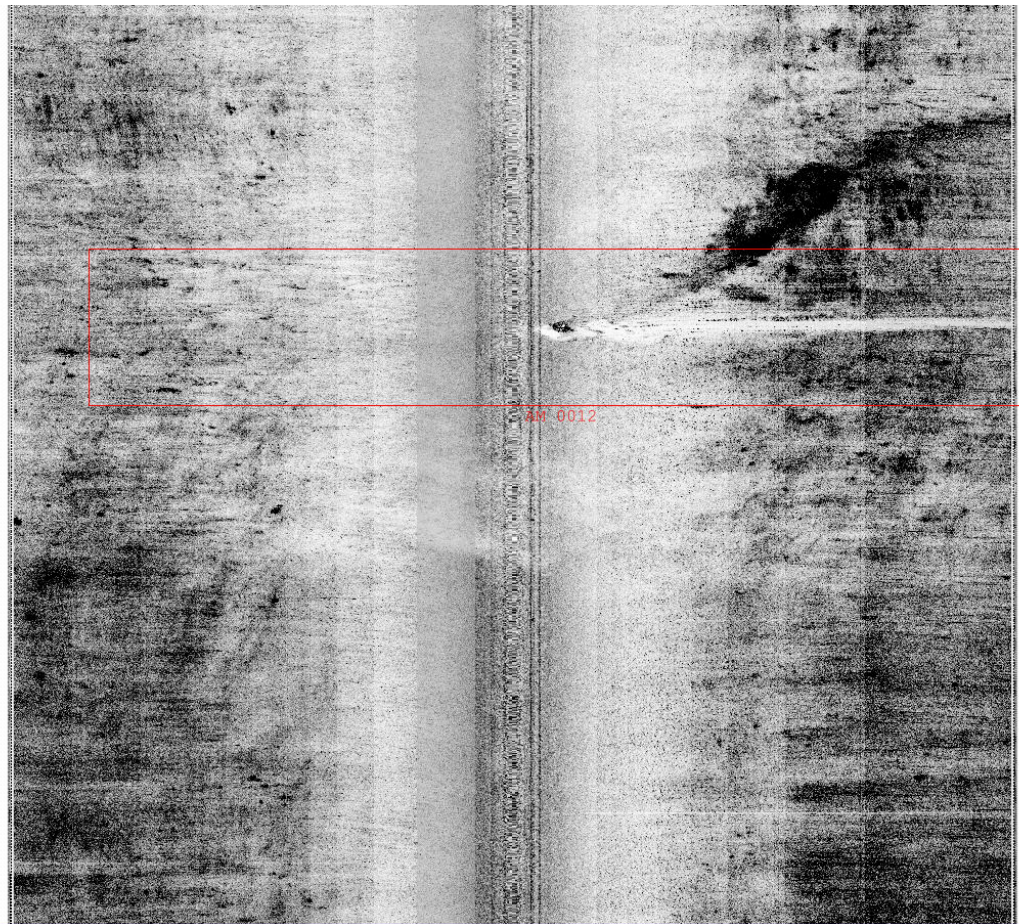


Figure 1.12.2

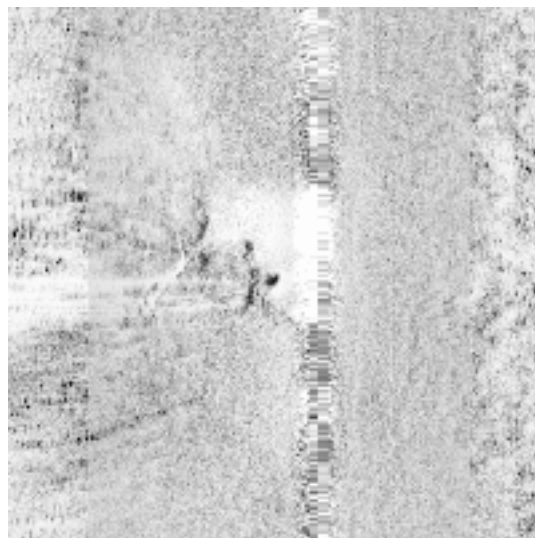


Figure 1.12.3

1.13) GP No. - 13 from H11621_DToNs.xls**DANGER TO NAVIGATION****Survey Summary**

Survey Position: 30° 18' 48.8" N, 088° 18' 24.4" W
Least Depth: 1.98 m (= 6.50 ft = 1.083 fm = 1 fm 0.50 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 2006-349.00:00:00.000 (12/15/2006)
GP Dataset: H11621_DToNs.xls
GP No.: 13
Charts Affected: 11374_2, 11373_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Dangerous obstruction was survey with side scan sonar and not submitted as a DToN by the field. Obstruction will be reported because the feature was not fully developed with bathymetry. Least depth estimated from side scan sonar shadow height subtracted from the closest bathy data. The least depth estimation of obstruction is 6.5ft.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11621_DToNs.xls	13	0.00	000.0	Primary

Hydrographer Recommendations

Recommend charting 6ft obstruction reported 2006. ***Do not concur. Feature appears to be an exposed pipe leaking gas.***

It is recommended that the owner be notified so that it can be removed or repaired.

Cartographically-Rounded Depth (Affected Charts):

6ft (11374_2, 11373_1)

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

S-57 Data

[None]

Office Notes

Feature Images

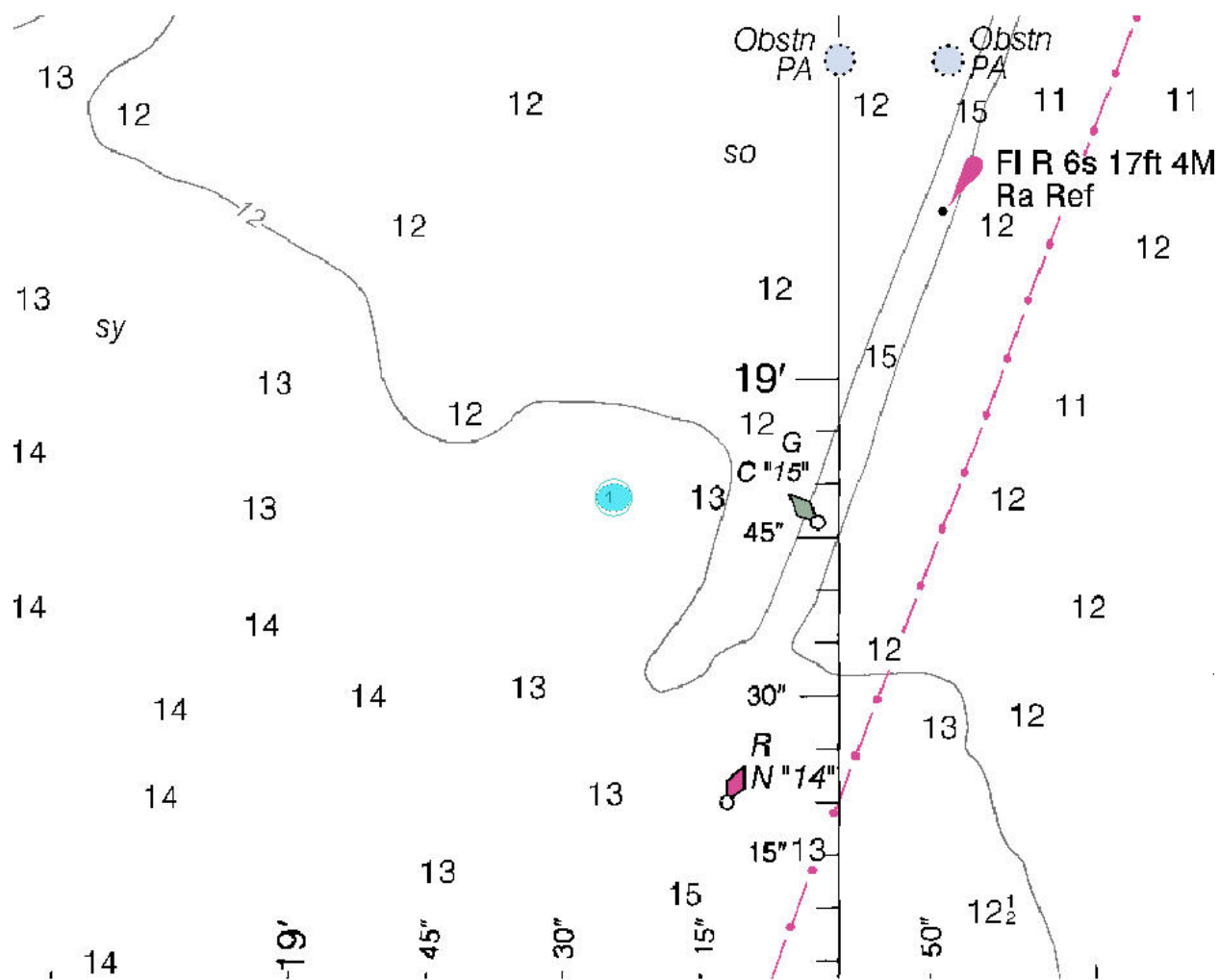


Figure 1.13.1

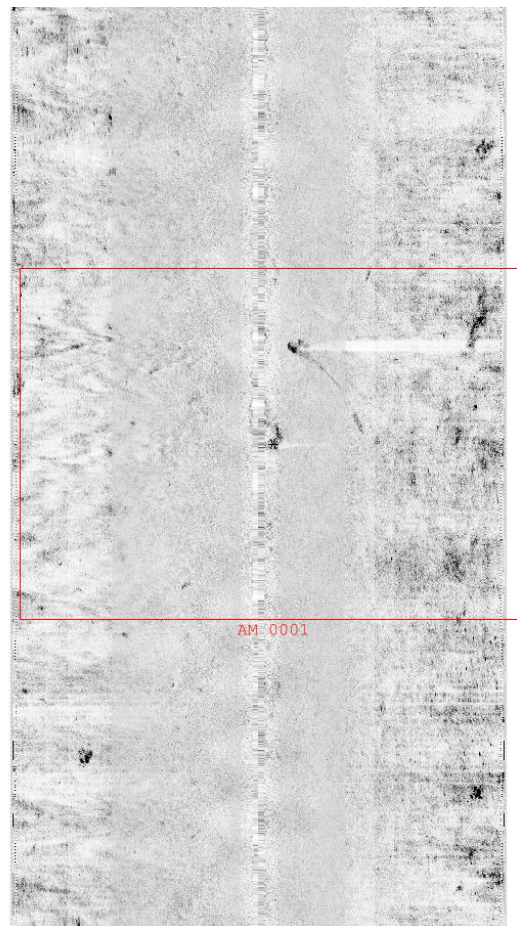


Figure 1.13.2

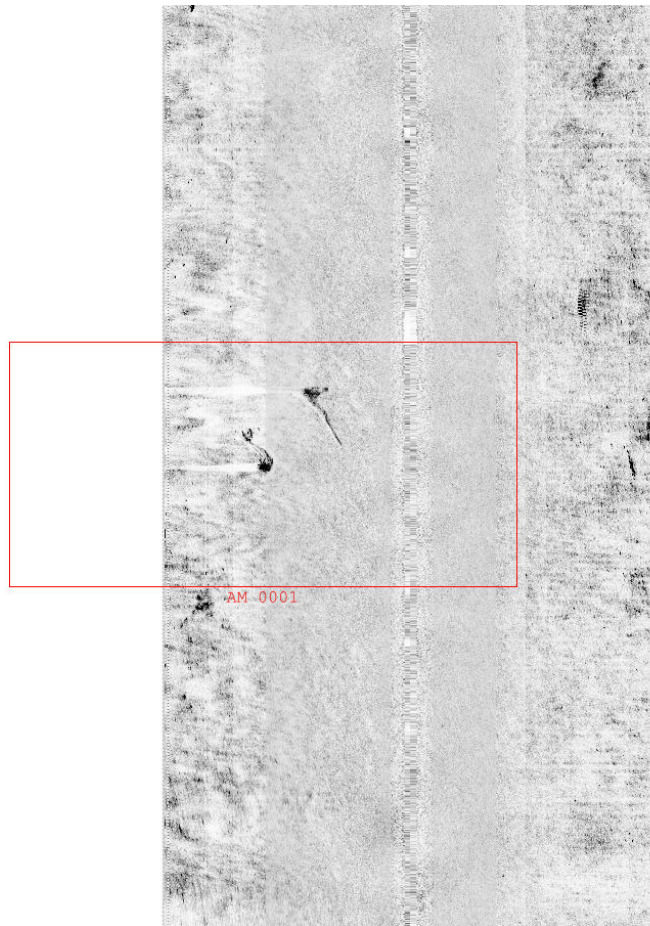


Figure 1.13.3

1.14) GP No. - 14 from H11621_DToNs.xls**DANGER TO NAVIGATION****Survey Summary**

Survey Position: 30° 20' 06.9" N, 088° 17' 21.8" W
Least Depth: 1.31 m (= 4.30 ft = 0.716 fm = 0 fm 4.30 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 2006-349.00:00:00.000 (12/15/2006)
GP Dataset: H11621_DToNs.xls
GP No.: 14
Charts Affected: 11374_2, 11373_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Dangerous obstruction was survey with side scan sonar and not submitted as a DToN by the field. Obstruction will be reported because the feature was not fully developed with bathymetry. Least depth estimated from side scan sonar shadow height subtracted from the closest bathy data. The least depth estimation of obstruction is 4.3ft.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11621_DToNs.xls	14	0.00	000.0	Primary

Hydrographer Recommendations

Recommend charting 4ft obstruction reported 2006. *Concur with conditions. Chart Dangerous submerged obstruction symbol and the note Obstrn (exposed pipeline 4 ft rep 2006)*

Cartographically-Rounded Depth (Affected Charts):

4ft (11374_2, 11373_1)

0 $\frac{3}{4}$ fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

[None]

Office Notes

Feature Images

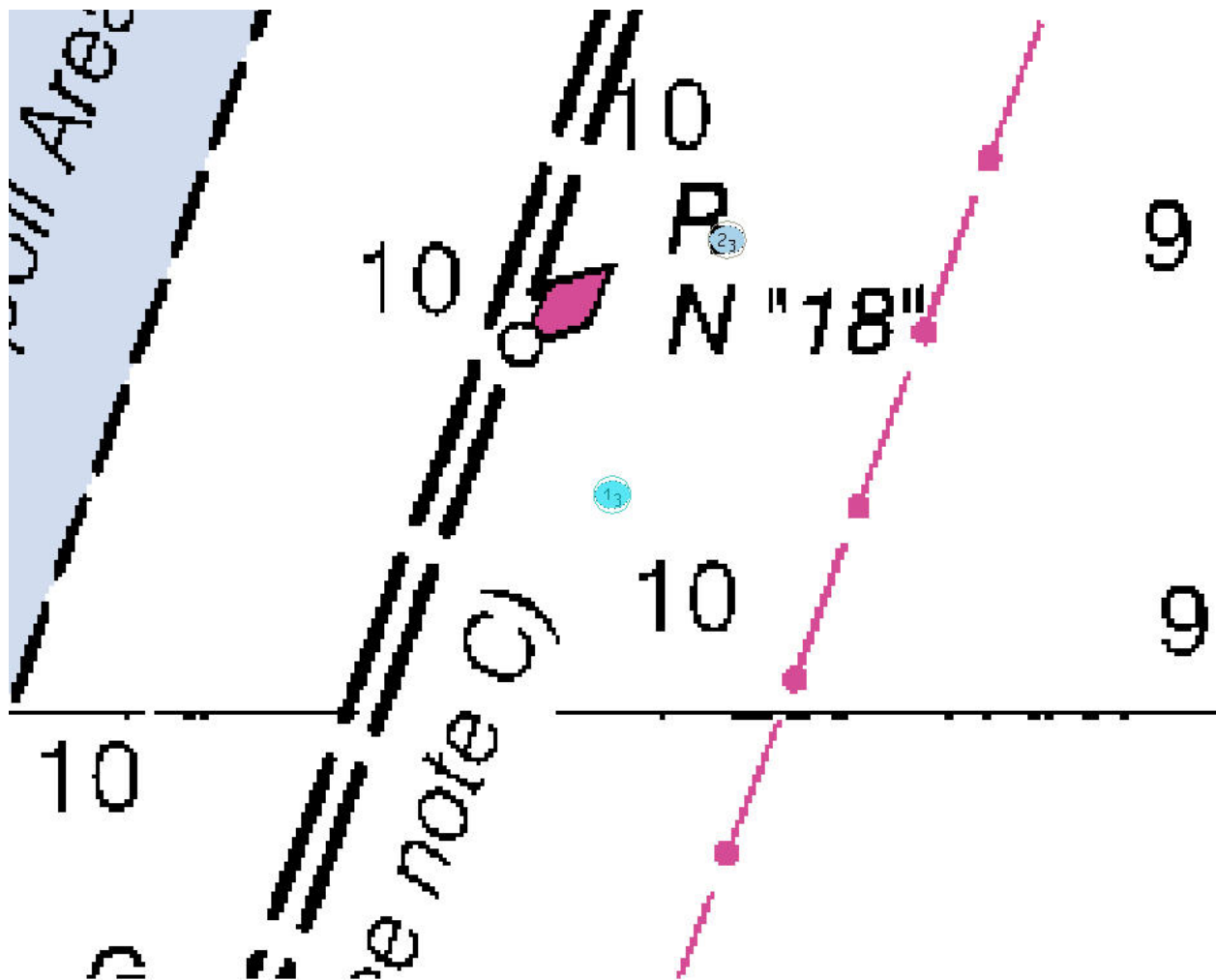


Figure 1.14.1

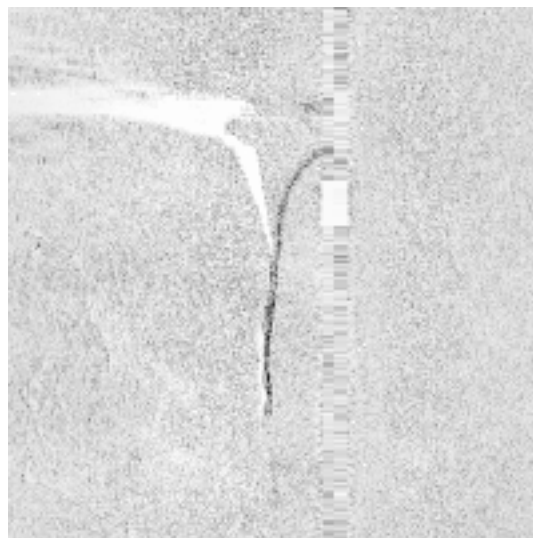


Figure 1.14.2

1.15) GP No. - 15 from H11621_DToNs.xls**DANGER TO NAVIGATION****Survey Summary**

Survey Position: 30° 20' 14.8" N, 088° 17' 17.7" W
Least Depth: 2.34 m (= 7.68 ft = 1.280 fm = 1 fm 1.68 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 2006-349.00:00:00.000 (12/15/2006)
GP Dataset: H11621_DToNs.xls
GP No.: 15
Charts Affected: 11374_2, 11373_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Dangerous obstruction was survey with side scan sonar and not submitted as a DToN by the field. Obstruction will be reported because the feature was not fully developed with bathymetry. Least depth estimated from side scan sonar shadow height subtracted from the closest bathy data. The least depth estimation of obstruction is 7.68ft.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11621_DToNs.xls	15	0.00	000.0	Primary

Hydrographer Recommendations

Recommend charting 7ft obstruction reported 2006. *Concur. Add a dangerous submerged obstruction symbol and the notation 7 ft rep 2006.*

Cartographically-Rounded Depth (Affected Charts):

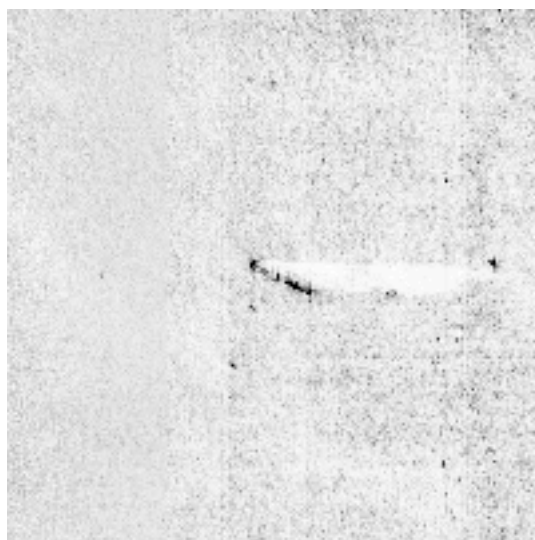
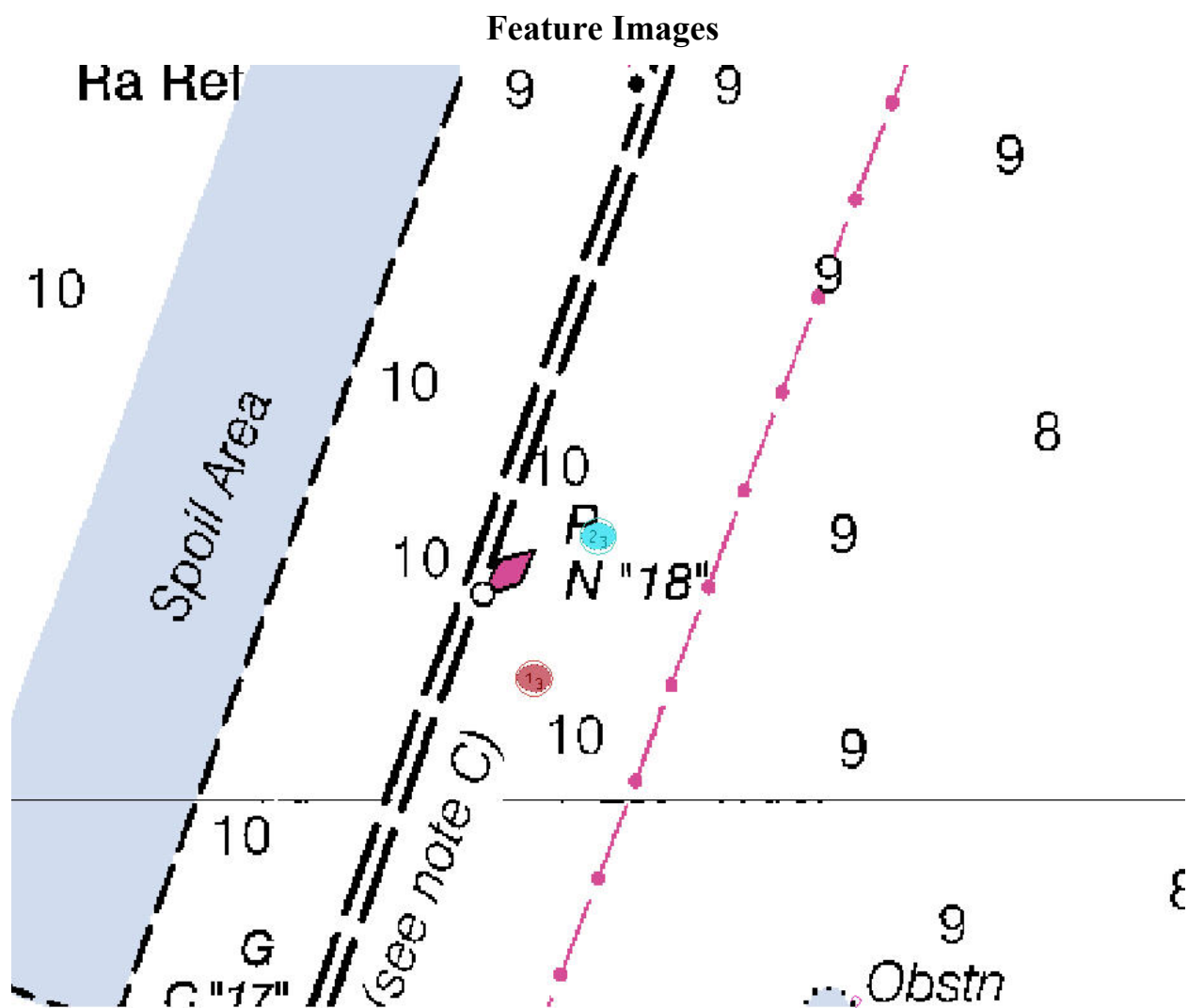
7ft (11374_2, 11373_1)

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

S-57 Data

[None]

Office Notes



1.16) GP No. - 16 from H11621_DToNs.xls**DANGER TO NAVIGATION****Survey Summary**

Survey Position: 30° 19' 56.3" N, 088° 22' 37.6" W
Least Depth: 3.00 m (= 9.84 ft = 1.640 fm = 1 fm 3.84 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 2006-349.00:00:00.000 (12/15/2006)
GP Dataset: H11621_DToNs.xls
GP No.: 16
Charts Affected: 11374_2, 11373_1, 11366_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Dangerous obstruction was survey with side scan sonar and not submitted as a DToN by the field. Obstruction will be reported because the feature was not fully developed with bathymetry. Least depth estimated from side scan sonar shadow height subtracted from the closest bathy data. The least depth estimation of obstruction is 9.84ft.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11621_DToNs.xls	16	0.00	000.0	Primary

Hydrographer Recommendations

Recommend charting 10ft obstruction reported 2006. *Concur. Add a dangerous submerged obstruction symbol and the notation 10 ft rep 2006.*

Cartographically-Rounded Depth (Affected Charts):

10ft (11374_2, 11373_1)

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

1fm 4ft (11366_1)

S-57 Data

[None]

Office Notes

Feature Images

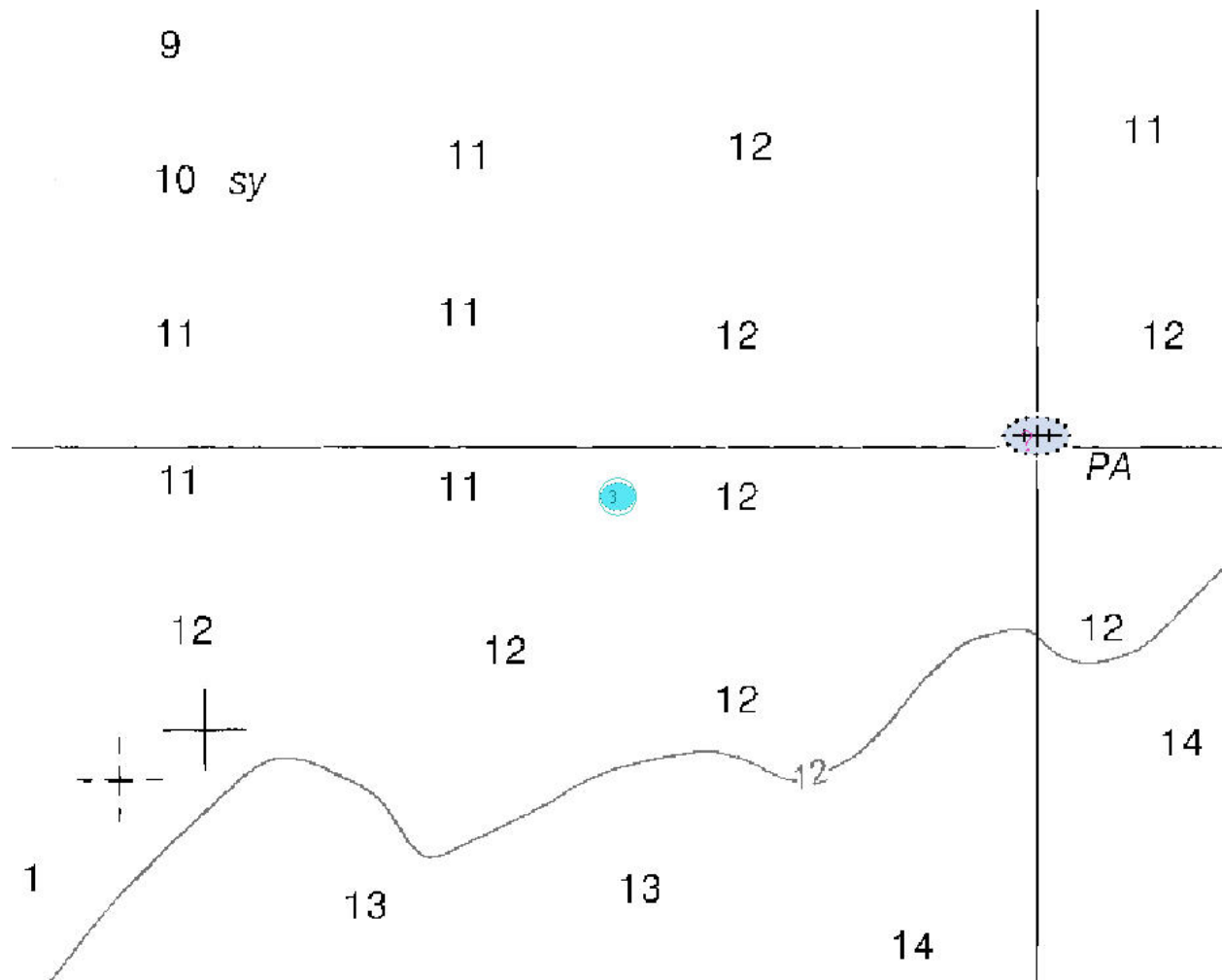


Figure 1.16.1

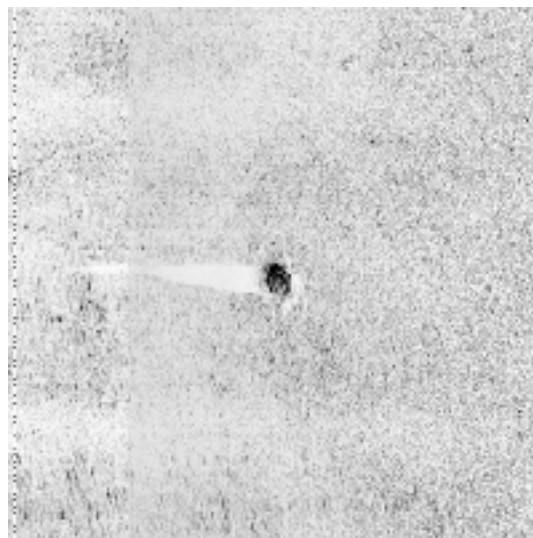


Figure 1.16.2



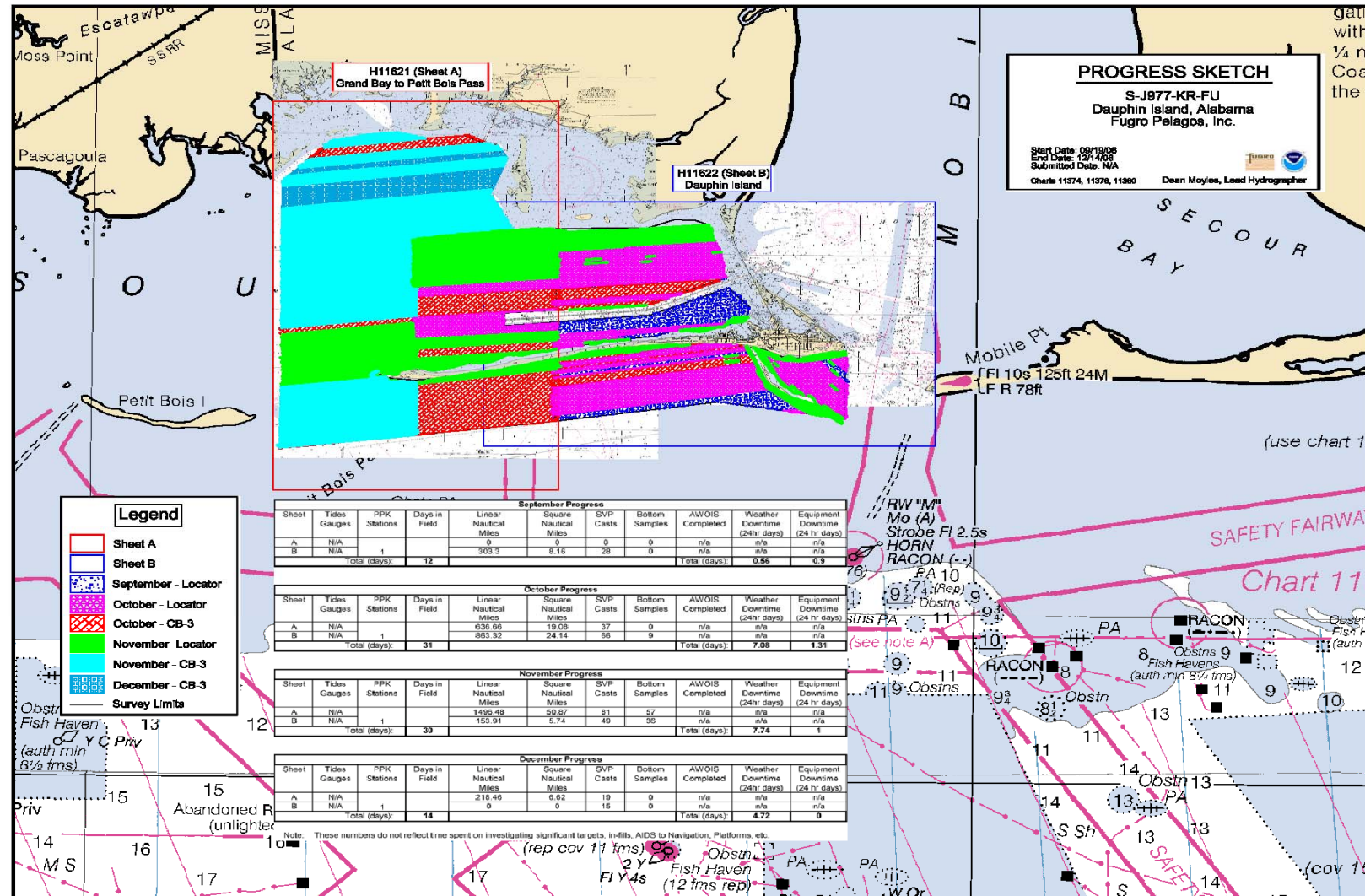
Appendix II – Survey Feature Report

No AWOIS items were assigned for H11621.

APPENDIX III
FINAL PROGRESS SKETCH AND SURVEY



Appendix III – Final Progress Sheet and Survey Outline



APPENDIX IV
TIDES AND WATER LEVELS

APPENDIX V
SUPPLEMENTAL SURVEY AND
CORRESPONDENCE

Search Tracking Numbers	Contact Number	Towfish Layback (m)	Contact Range (m) (Port -ve/Sibd +ve)	Contact Position	Contact Height (m)	Remarks	Comparison with Shallow Water Multibeam
1A03-TA-08-1	1A03-TA-08-10001-M	0	10.3	30-19-51.67 / 88-19-43.29	1.63	8.268 ft (rep) obstruction	N/A
1A03-TA-15-2	1A03-TA-15-20001-M	0	-16.1	30-14-47.84 / 88-22-00.22	0.89	15.453 ft (rep) obstruction	N/A
1A03-TA-16-2	1A03-TA-16-20001-M	0	-14	30-15-04.99 / 88-20-51.96	1.33	12.268 ft (rep) obstruction	N/A
1A03-TA-17-1	1A03-TA-17-10001-M	0	14.5	30-14-54.14 / 88-23-10.38	0.50	17.060 ft (rep) obstruction	N/A
1A03-TA-19-2	1A03-TA-19-20001-M	0	-11.8	30-15-52.81 / 88-20-15.33	0.54	13.976 ft (rep) obstruction	N/A
1A03-TA-20-3	1A03-TA-20-30001-M	0	1.6	30-16-14.35 / 88-20-02.08	0.70	13.123 ft (rep) obstruction	N/A
2A04-TA-31-1	2A04-TA-31-10001-M	0	-9.4	30-16-33.06 / 88-18-50.96	1.49	8.891 ft (rep) obstruction	N/A
2A04-TA-32-3	2A04-TA-32-30001-M	0	0.9	30-16-40.80 / 88-19-04.25	0.98	10.564 ft (rep) obstruction	N/A
2A04-TA-33-1	2A04-TA-33-10001-M	0	-7	30-16-53.78 / 88-17-20.72	1.73	6.791 ft (rep) obstruction	N/A
2A04-TA-36-3	2A04-TA-36-30001-M	0	1.3	30-17-10.83 / 88-18-53.34	1.19	9.482 ft (rep) obstruction	N/A
2A04-TA-37-2	2A04-TA-37-20001-M	0	-10.9	30-17-25.48 / 88-18-26.97	0.91	9.843 ft (rep) obstruction	N/A
2A04-TA-39-2	2A04-TA-39-20001-M	0	17	30-17-31.15 / 88-19-03.91	0.15	12.303 ft (rep) obstruction	N/A
2A05-TA-41-3	2A05-TA-41-30001-M	0	-1.6	30-18-47.03 / 88-16-31.04	1.23	4.560 ft (rep) obstruction	N/A
2A05-TA-42-3	2A05-TA-42-30001-M	0	1.7	30-18-48.82 / 88-18-24.36	1.92	6.496 ft (rep) obstruction	N/A
2A05-TA-45-3	2A05-TA-45-30001-M	0	-2.2	30-20-06.86 / 88-17-21.82	1.79	4.298 ft (rep) obstruction	N/A
2A05-TA-46-1	2A05-TA-46-10001-M	0	13.7	30-20-14.76 / 88-17-17.70	0.66	7.677 ft (rep) obstruction	N/A
2A05-TA-47-1	2A05-TA-47-10001-M	0	-14	30-19-56.35 / 88-22-37.60	0.82	9.843 ft (rep) obstruction	N/A

[illegible]

Subject: [Fwd: D to N's]
Date: Thu, 01 Feb 2007 08:07:25 -0500
From: gene_parker <castle.e.parker@noaa.gov>
Organization: NOAA / Atlantic Hydrographic Branch
To: Tim Osborn <Tim.Osborn@noaa.gov>
CC: Crescent Moegling <Crescent.Moegling@noaa.gov>,
Norris A Wike <Norris.A.Wike@noaa.gov>

Good Day Tim,
Fugro submitted two DtoN letters last week concerning missing Nav Aids; please reference the attached H11621 and H11622 DtoN letters providing information for the missing navigational aids. AHB is not going to process and submit to MCD as a Danger; AHB is not the charting authority for Nav Aids. The authority source of charting information is the US Coast Guard. Please contact the local USCG AtoN Team and notify them of their missing Nav Aids, from which they can submit as notice in Local Notice to Mariners from which MCD will extract the information.

If you have any other issues or questions please reply.
Regards, Gene

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

Subject: D to N's
Date: Fri, 26 Jan 2007 10:46:05 -0500
From: "Moyles, Dean" <DMoyles@Fugro.com>
To: gene_parker <Castle.E.Parker@noaa.gov>, Crescent Moegling
<Crescent.Moegling@noaa.gov>

Dean Moyles

Geomatics Engineering Technologist

Fugro Pelagos, Inc.

San Diego, CA92123

Phone (858) 292-8922

Fax (858) 292-5308

Cell (858) 945-6378

www.fugro-pelagos.com

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Name: H11621 DtoN Fugro 012407.doc

H11621 DtoN Fugro 012407.doc Type: WINWORD File
(application/msword)

Encoding: base64

Name: H11622 DtoN Fugro 012407.doc

H11622 DtoN Fugro 012407.doc Type: WINWORD File
(application/msword)

Encoding: base64

Subject: H11621 Exposed Pipes
Date: Mon, 24 Nov 2008 15:20:27 -0500
From: Mark.Opdyke@noaa.gov
To: Tim Osborn <Tim.Osborn@noaa.gov>
CC: "Castle.E.Parker" <Castle.E.Parker@noaa.gov>,
Edward Owens <Edward.Owens@noaa.gov>

Tim,

There were four obstructions identified during office processing of survey H11621 that appear to be uncharted exposed pipes. Feature 45-3 was submitted as a DToN while the other three were not. It is recommended that the owners of the pipes are contacted as there is potential that three could be leaking gas. Attached is a word document with a chartlet and images of each feature.

If you have any questions please do not hesitate to contact me,

Cheers,
Mark Opdyke

Mark.opdyke@noaa.gov
757-441-6746 x125

Name: H11621_exposed_Pipes.doc
Type: WINWORD File
H11621_exposed_Pipes.doc (application/msword)
Encoding: base64
Download Status: Not downloaded with message

Subject: H11621_DToNs
Date: Mon, 24 Nov 2008 15:42:46 -0500
From: Mark.Opdyke@noaa.gov
To: NOS OCS MCD Navigation Dangers <mcd.dton@noaa.gov>
CC: Castle E Parker <Castle.E.Parker@noaa.gov>,
Shep Smith <Shep.Smith@noaa.gov>, Tim Osborn
<Tim.Osborn@noaa.gov>,
James M Crocker <James.M.Crocker@noaa.gov>, dbriggs@fugro.com

Good Day,

Please find attached a zip file for survey H11621 DToNs for submission to Marine Chart Division (MCD).

The contents of the attached WinZip file were generated at Atlantic Hydrographic Branch. The attached zip file contains a DtoN Letter (PDF) and a Pydro XML. The .jpg image files were removed as the file was too large for email. If they are needed please contact me and I can email them.

If you have any questions, please direct them back to me; email me or call 757-441-6746 X125.

Thank you for your assistance with this matter,

Mark Opdyke

Name: H11621_DToNs.zip
Type: Zip Compressed Data
H11621_DToNs.zip (application/x-zip-compressed)
Encoding: base64
Download Status: Not downloaded with message

Subject: Dangers to Navigation - H11621
Date: Tue, 25 Nov 2008 16:42:47 -0500
From: Lance Roddy <Lance.Roddy@noaa.gov>
To: Castle E Parker <Castle.E.Parker@noaa.gov>,
Chris Libeau <Chris.Libeau@noaa.gov>, Dave Neander
<Dave.Neander@noaa.gov>,
Ed Martin <Ed.Martin@noaa.gov>, Howard Danley
<Howard.Danley@noaa.gov>,
Jim Crocker <James.M.Crocker@noaa.gov>,
Joseph Robinson <Joseph.Robinson@noaa.gov>,
Ken Forster <Ken.Forster@noaa.gov>, Kevin Shaw
<Kevin.Shaw@noaa.gov>,
Mark Griffin <Mark.Griffin@noaa.gov>, NDB e-Mailbox
<OCS.NDB@noaa.gov>,
Richard Sillcox <Richard.Sillcox@noaa.gov>, Shep Smith
<Shep.Smith@noaa.gov>,
Stephen Hill <Stephen.Hill@noaa.gov>, Tom Loeper
<Thomas.Loeper@noaa.gov>,
Travis Newman <Travis.Newman@noaa.gov>,
David Scharff <David.Scharff@noaa.gov>,
Crescent Moegling <Crescent.Moegling@noaa.gov>,
dbriggs@fugro.com,
Tim.Osborn@noaa.gov

L-1270/08 and DD-12668 have been registered by the Nautical Data Branch
and directed to Products Branch E for processing.

The DTONs reported are 16 obstructions in Mississippi Sound, southwest
of Isle Aux Herbes, AL.

The following charts are affected: 11374 kapp 18
11374 kapp 19
11373 kapp 52

The following ENC is affected: US5MS21M

References: H11621, S-J977-KR-FU

This information was discovered by a contractor and submitted by AHB.

Subject: H11621 Exposed Pipes
Date: Mon, 24 Nov 2008 15:20:27 -0500
From: Mark.Opdyke@noaa.gov
To: Tim Osborn <Tim.Osborn@noaa.gov>
CC: "Castle.E.Parker" <Castle.E.Parker@noaa.gov>,
Edward Owens <Edward.Owens@noaa.gov>

Tim,

There were four obstructions identified during office processing of survey H11621 that appear to be uncharted exposed pipes. Feature 45-3 was submitted as a DToN while the other three were not. It is recommended that the owners of the pipes are contacted as there is potential that three could be leaking gas. Attached is a word document with a chartlet and images of each feature.

If you have any questions please do not hesitate to contact me,

Cheers,
Mark Opdyke

Mark.opdyke@noaa.gov
757-441-6746 x125

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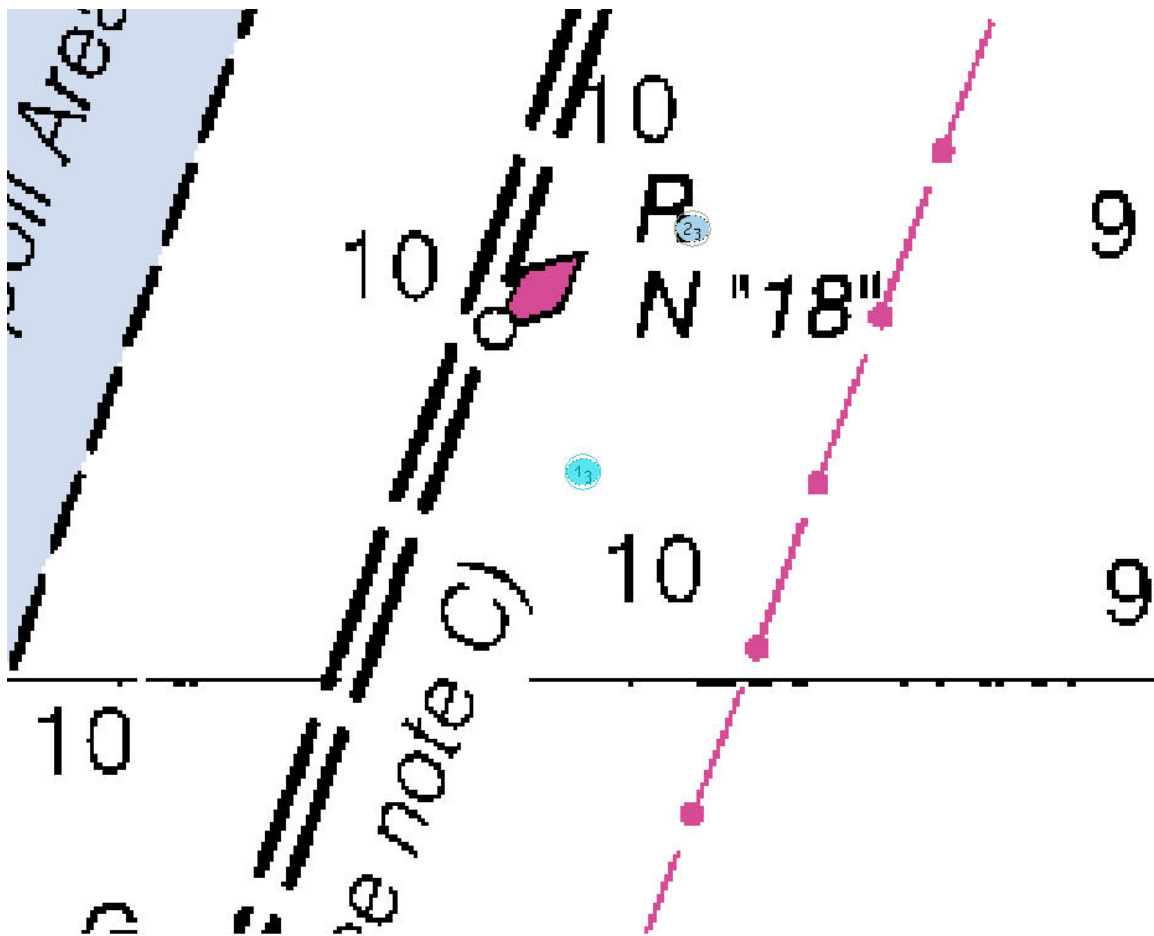
Name: H11621_exposed_Pipes.doc
Type: WINWORD File
H11621_exposed_Pipes.doc (application/msword)
Encoding: base64
Download Status: Not downloaded with message

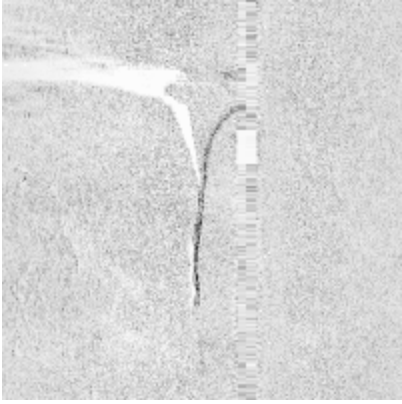
Tim,

There were four obstructions identified during office processing of survey H11621 that appear to be uncharted exposed pipes. Feature 45-3 was submitted as a DToN while the other three were not. It is recommended that the owners of the pipes be contacted as there is potential that three could be leaking gas. Below are the images of the exposed pipes.

Cheers,
Mark Opdyke
Mark.opdyke@noaa.gov
757-441-6746 x125

Feature 45-3 located at 30.33523750 N (***30° 20' 06.86"N***) 88.28939427 W (***88° 17' 21.82"N***) was submitted as a DToN to MCD.





Feature 39-2 located at 30.29198513 N(**30° 17' 31.15"N**) 88.31775217 W (**88° 19' 03.91"N**) was not submitted as a DToN. It appears to be an exposed pipe and the owner should be notified.

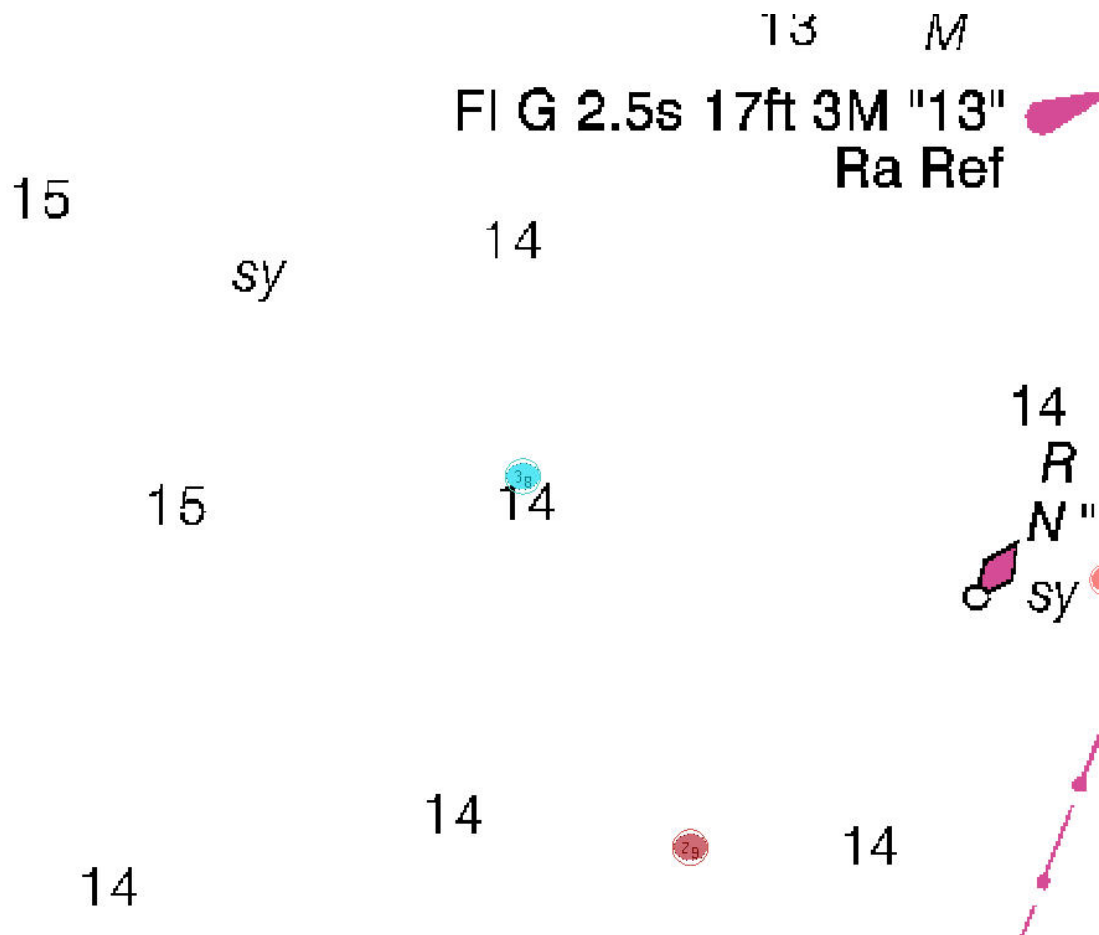
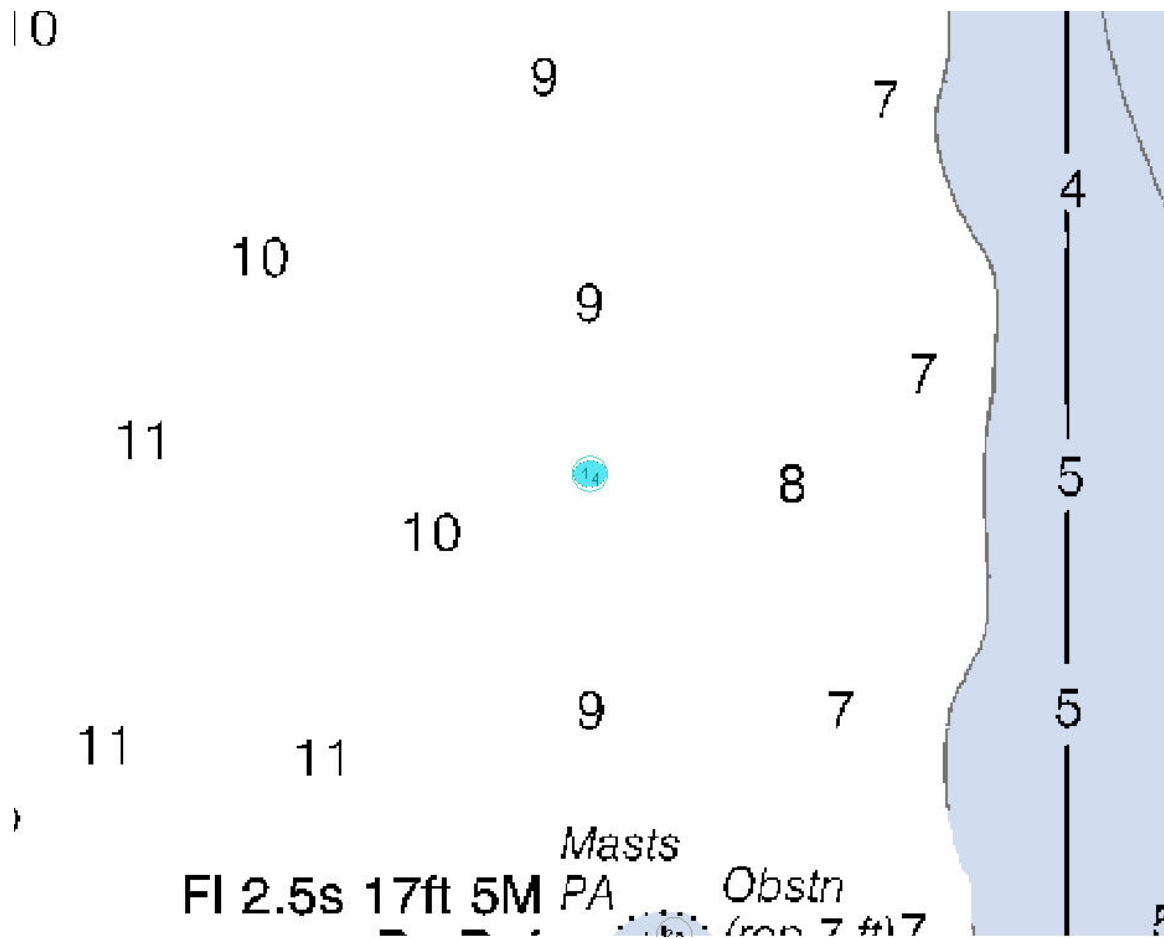




Figure 41-3 located at 30.31306333 N **30° 18' 47.03"N** 88.27528920W **88° 16' 31.04"N** appears to be a gas leak in the SSS. It is difficult to believe that the images are a real feature, rather are the result of the sonar being deflected by a gas plume in the water.



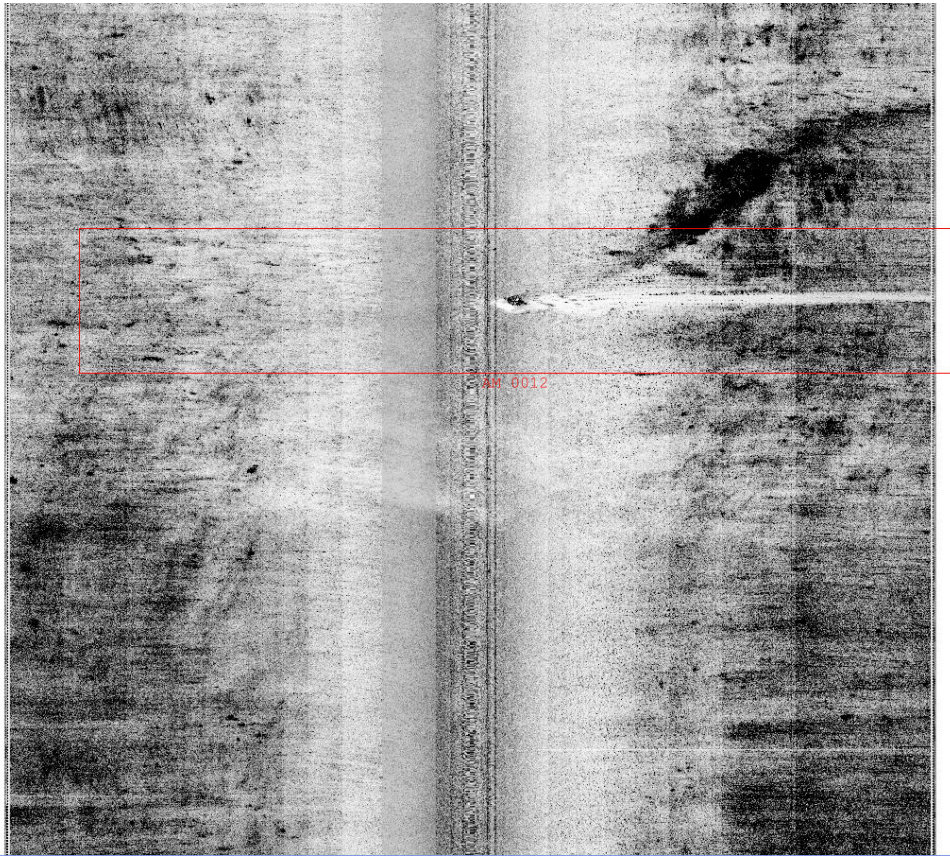
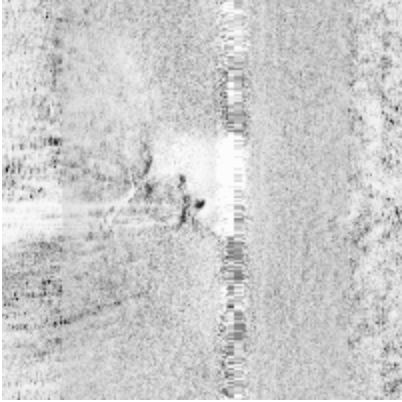
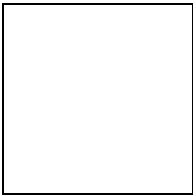
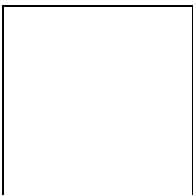
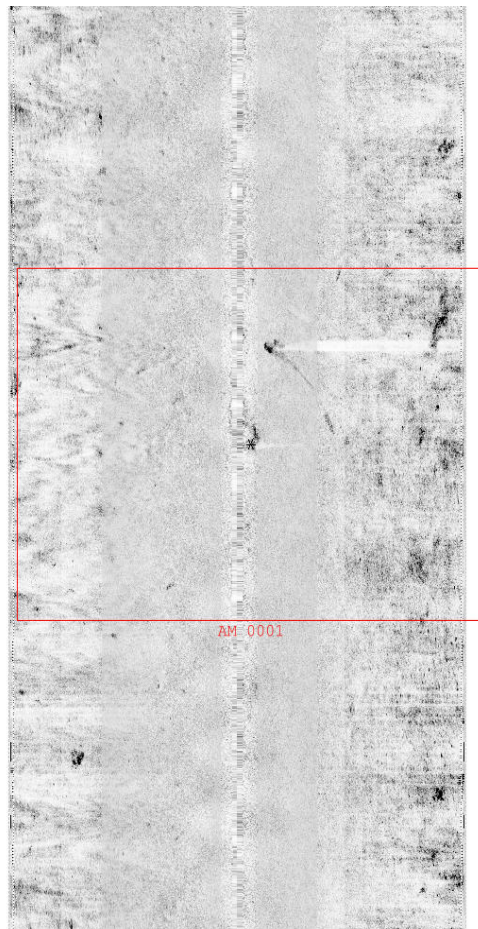


Figure 42-3 located at 30.31355977 N, **30° 18' 48.82"N**, 88.30676600 W **88° 18' 24.36"N** also appears to be a gas leak and not an actual feature.



H11621_BOTTOM SAMPLES

	30-12-13.16 / 88-21-33.54		BS / silt, ooze, sand
BS	30-12-14.54 / 88-18-06.55		BS / sand
BS	30-12-22.38 / 88-22-44.16		BS / sand, shells
BS	30-12-42.90 / 88-15-15.90		BS / sand
BS	30-13-06.91 / 88-19-45.61		BS / sand
BS	30-13-11.56 / 88-21-30.25		BS / sand
BS	30-13-25.59 / 88-22-47.97		BS / sand, shells
BS	30-13-33.43 / 88-16-43.39		BS / silt, ooze, sand
BS	30-13-41.06 / 88-16-06.94		BS / sand, shells
BS	30-13-47.81 / 88-15-19.61		BS / clay
BS	30-13-54.62 / 88-14-35.09		BS / sand, shells
BS	30-14-30.38 / 88-22-47.95		BS / sand, shells
BS	30-14-41.27 / 88-21-36.09		BS / silt, ooze, sand, shells
BS	30-14-44.86 / 88-18-50.25		BS / silt, ooze, sand
BS	30-14-54.93 / 88-16-58.10		BS / silt, ooze, sand
BS	30-15-13.57 / 88-14-41.59		BS / silt, ooze, sand
BS	30-15-35.98 / 88-22-47.25		BS / silt, ooze, sand, shells
BS	30-15-58.48 / 88-20-12.69		BS / silt, ooze, sand
BS	30-16-06.49 / 88-18-37.25		BS / silt, ooze, sand
BS	30-16-29.56 / 88-14-54.83		BS / silt, ooze, sand
BS	30-16-41.38 / 88-22-48.68		BS / silt, ooze, sand, shells
BS	30-16-53.58 / 88/21/29.29		BS / silt, ooze, clay
BS	30-17-00.64 / 88-20-09.04		BS / silt, ooze
BS	30-17-21.17 / 88-17-26.14		BS / silt, ooze
BS	30-17-25.14 / 88-16-06.43		BS / silt, ooze, clay
BS	30-17-35.48 / 88-14-55.90		BS / silt, ooze
BS	30-17-48.10 / 88-22-48.14		BS / silt, ooze, sand
BS	30-17-57.04 / 88-21-37.29		BS / silt, ooze, sand
BS	30-18-07.20 / 88-20-16.32		BS / silt, ooze, sand
BS	30-18-21.99 / 88-17-24.88		BS / silt, ooze, sand
BS	30-18-32.55 / 88-16-06.29		BS / sand
BS	30-18-57.04 / 88-22-27.38		BS / silt, ooze, sand
BS	30-19-14.48 / 88-19-50.99		BS / silt, ooze, clay
BS	30-19-27.68 / 88-17-22.58		BS / silt, ooze
BS	30-20-03.05 / 88-22-25.77		BS / silt, ooze, sand
BS	30-20-17.66 / 88-19-52.52		BS / sand
BS	30-20-22.73 / 88-18-43.94		BS / silt, ooze, sand
BS	30-20-31.31 / 88-17-25.57		BS / silt, ooze
BS	30-21-02.44 / 88-22-24.29		BS / silt, ooze, sand
BS	30-21-14.03 / 88-21-13.33		BS / silt, ooze, sand
BS	30-21-31.00 / 88-18-47.60		BS / silt, ooze, sand
BS	30-21-38.51 / 88-17/24.59		BS / silt, ooze, clay
BS	30-21-47.82 / 88-21-16.39		BS / silt, ooze, sand
BS	30-21-50.79 / 88-19-00.77		BS / silt, ooze, clay
BS	30-21-55.77 / 88-20-11.11		BS / sand

**ATLANTIC HYDROGRAPHIC BRANCH
EVALUATION REPORT to Accompany
Survey H1621 (2006)**

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

B. DATA ACQUISITION AND PROCESSING

B.1 DATA PROCESSING

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

HSTP PYDRO version 8.5 r23563
CARIS HIPS/SIPS version 6.1 SP1 HF 1-6
CARIS Bathy DataBASE Manager version 2.1 SP 1 -7
CARIS S57 Composer version 2.0
CARIS HOM version 3.3 SP 3

B.2. QUALITY CONTROL

B.2.1. H-Cell

The AHB source depth grid for the survey's nautical chart update product entailed using the good single beam data from a 5 meter resolution surface. The sounding selection was generated from this 5 meter surface with a 100m shoal-biased radius. The chart soundings were then selected from the sounding selection with the aid of the contours, and using AHB best practices. The selected sounding set is approximately 10 times the number of charted depths. The chart scale selected soundings are a subset of the survey scale selected soundings. The surface model was referenced when selecting the chart scale soundings, to ensure that the selected soundings portrayed the bathymetry within the common area.

The SAHOB files included depth areas (DEPARE), hand drawn contours (DEPCNT), sounding selections (SOUNDG), features (OBSTRN, OFSPLF, SBDARE, WRECKS), US5MS21M_ENC soundings (SOUNDG), US5MS21M_ENC Features (OBSTRN, WRECKS), Meta objects (M_COVR, M_QUAL), and cartographic Blue Notes.

All of the components with the exception of the sounding selection were inserted into one feature layer (including the Bluenotes, as dictated by Hydrographic Technical Directive 2008-8), and this layer was exported into S-57 format in order to create the H-Cell deliverable. Similarly, the sounding selection was exported into S-57 format separately, and then both S-57 files were processed in CARIS HOM to convert the metric units to feet. The final products are two S-57 files, one that contains the chart soundings, all the features, Meta objects, and Bluenotes (H11621_CS.000), and one that contains the sounding selection (H11621_SS.000). Finally, quality assurance checks were made utilizing CARIS S-57 Composer version 2.0 validation checks.

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

H11621 CARIS H-Cell final deliverables include the following products:

US5H11621_CS.000	1:40,000 Scale	H11621 H-Cell with Chart Scale Selected Soundings
US5H11621_SS.000	1:10,000 Scale	H11621 Selected Soundings (Survey Scale)

C. VERTICAL AND HORIZONTAL CONTROL

Final vertical correction processing was completed by the field unit with no additional correction required by Atlantic Hydrographic Branch. The field unit applied final verified water levels in conjunction with the preliminary tidal zoning which was accepted and approved by N/OPSI CO-OPS as the final zoning for H11621. Sounding datum is Mean Lower Low Water (MLLW). Vertical datum is Mean High Water (MHW)

Horizontal control used for this survey during data acquisition is based upon the North American Datum of 1983 (NAD83), UTM projection zone 16. Office ENC processing of this survey required translating the datum to meet S-57 ENC requirements.

D. RESULTS AND RECOMMENDATIONS

D.1 CHART COMPARISON

11374 (34th Edition, OCT/07)
Corrected through NM 10/06/2007
Corrected through LNM 09/25/2007
Scale 1:40,000

ENC Comparison

US5MS21M
Dauphin Island Alabama to
Horn Island Mississippi
Edition 16
Update Application Date 2008-10-08
Issue Date 2008-10-08
References: Chart 11374

D.1.1 Hydrography

The charted hydrography originates with prior surveys and requires no further consideration. The hydrographer makes adequate chart comparisons in section "D" and Appendix 1 of the Descriptive Report. Present survey depths are generally agree well with the charted depths. The following should be noted:

1. There were four obstructions identified during office processing of survey H11621 that appear to be uncharted exposed pipes. Only one of the obstructions were submitted as a DTON because the side scan images of the other three appear to be pipes that are leaking gas. The one obstruction located in Latitude 30°20'06.86"N, Longitude 88°17'21.82"N was submitted as a DToN and should be charted as a dangerous submerged obstruction and the note Obsn (exposed pipeline 4 ft rep 2006). It is

recommended that the owners of the pipes are contacted and informed that their pipes could be leaking gas.

The non-submitted pipes are located in:

<u>Latitude (N)</u>	<u>Longitude (W)</u>
30° 17' 31.15"N	88° 19' 03.91"N
30° 18' 47.03"N	88° 16' 31.04"N
30° 18' 48.82"N	88° 18' 24.36"N

2. The following are new features that were found during the present survey operations. These features were found during processing of the survey at AHB and were submitted as Dangers to Navigation. It is recommended that they be charted as follows:

<u>Latitude (N)</u>	<u>Longitude (W)</u>	<u>Feature</u>
30°14'47.84"	88°22'00.22"	Dang Obstn (15 ft rep 2006)
30°14'54.14"	88°23'10.38"	Dang Obstn (17 ft rep 2006)
30°15'04.99"	88°20'51.96"	Dang Obstn (12 ft rep 2006)
30°15'52.81"	88°20'15.33"	Dang Obstn (14 ft rep 2006)
30°16'14.35"	88°20'02.08"	Dang Obstn (13 ft rep 2006)
30°16'33.06"	88°18'50.96"	Dang Obstn (9 ft rep 2006)
30°16'40.80"	88°19'04.25"	Dang Obstn (10 ft rep 2006)
30°16'53.78"	88°17'20.72"	Dang Obstn (7 ft rep 2006)
30°17'10.83"	88°18'53.34"	Dang Obstn (9 ft rep 2006)
30°17'25.48"	88°18'26.97"	Dang Obstn (10 ft rep 2006)
30°19'56.35"	88°22'37.60"	Dang Obstn (10 ft rep 2006)
30°20'14.76"	88°17'17.70"	Dang Obstn (7 ft rep 2006)

3. The following are new features that were found during the present survey operations. These features were not discussed by the field in the Descriptive Report. It is recommended that they be charted as follows:

<u>Latitude (N)</u>	<u>Longitude (W)</u>	<u>Feature</u>
30°13'54.47"	88°19'36.54"	Foul area (Obstructions)
30°13'51.67"	88°19'43.29"	Dang Obstn (8 ft rep 2006)

4. The following charted features were disproved by 200% side scan sonar investigations during the present survey. It is recommended that they be deleted from the chart and that the area be updated with present survey depths:

<u>Latitude (N)</u>	<u>Longitude (W)</u>	<u>Feature</u>
30°13'24.21"	88°19'33.87"	Shl PA (5 ft rep 1993) note
30°13'38.00"	88°20'09.11"	Shl PA (7 ft rep 1993) note
30°13'49.74"	88°19'50.78"	Shl rep 1982 note
30°16'40.24"	88°23'22.85	Visible Wreck PA

5. The following charted features were neither verified nor disproved by the present survey. It is recommended that they be retained as charted.

<u>Latitude (N)</u>	<u>Longitude (W)</u>	<u>Feature</u>
30°14'04.94"	88°15'48.94"	dangerous sunken wreck PA
30°15'46.61"	88°15'59.27"	dangerous sunken wreck PA
30°15'39.88"	88°23'32.45"	dangerous sunken wreck PD (rep cov 1 ft)
30°18'24.10"	88°14'14.95"	dangerous submerged obstn

6. There are conflicts between the charted shoreline and the present survey in the vicinity of Latitude 30°13'54.22"N, Longitude 88°17'00.29"W and all along the south side of Dauphin Island. It is recommended that further work be done and that shoreline updates be made in the area.

D. DANGERS TO NAVIGATION

Two Dangers to Navigation were submitted by the field. See Appendix I. and Section D. of the Descriptive Report for a thorough discussion of the items. The following two charted navigation aids were submitted as dangers because they are no longer in the area:

<u>Feature</u>	<u>Latitude</u>	<u>Longitude</u>
Bayou La Batre Lighted Channel "19" LL# 6678	30-20-40N	88-17-15W
Bayou La Batre Daybeacon "20" LL# 6680	30-21-07N	88-17-02W

It is recommended the final charting decision for these aids to navigation be determined by MCD personnel.

D.2. 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.3. ADEQUACY OF SURVEY

The present survey is not adequate to supersede the charted bathymetry within the entire survey area. Most charted features were either verified or disproven and those that were disproven are discussed in the DR. Those that were not are discussed in the Evaluation Report. Several new features were found during the survey. These features are listed in this report and all had to be charted as reported because they only had side scan data to prove their existence and to estimate the depths because they were not fully developed. Several areas of charted soundings were not investigated adequately and have been recommended to be retained as charted. The field encountered a tidal problem, most likely a meteorological event that caused the present survey depths not to agree with each other. Bathymetric data from the days in question was rejected but the side scan sonar data was retained. It is recommended that another survey be done in this area when

feasible to adequately update the bathymetry. Any features not specifically addressed either in the Evaluation Report, H-Cell File, or the Blue Notes should be retained as charted. Refer to the Descriptive Report for further recommendations by the hydrographer.

AHB PRE-COMPILATION PROCESS

REGISTRY No.	H11621
PROJECT No.	S-J977-KR-FU
FIELD UNIT	FUGRO
PRE-COMPILER	MARK OPDYKE
LARGEST SCALE CHART	11374, edition 34, 200710
CHART SCALE	1:40,000
SURVEY SCALE	1: 10,000
DATE OF SURVEY	10/4/06 to 12/15/06
CONTENT REVIEW DATE	11/21/08

Components	File Names
<i>Product Surface</i>	NA
<i>Shifted Surface</i>	H11621_Good_Lines_SS_BASE_Shifted.hns
<i>Contour Layer</i>	H11621_Hand_Drawn_Contours.hob
<i>Survey Scale Soundings</i>	H11621_Good_Lines_SS_Soundings.hob
<i>Chart Scale Soundings</i>	H11621_CS_Soundings.hob
<i>ENC Retain Soundings</i>	H11621_ENC_Soundings_Retain.hob
<i>Feature Layer</i>	H11621_Features.hob H11621_ENC_Features_Retain.hob
<i>Meta-Objects Layer</i>	H11621_MetaObjects.hob
<i>Blue Notes</i>	H11621_Bluenotes.hob

SPECIFICATIONS:

- I. COMBINED SURFACE:
- File name: _____XXXXXXX_AHB_XXm_Combined.hns
 - Resolution: _____m
 - Final Grid Location: _____
- II. PRODUCT SURFACE (SOUNDINGS):
- Scale: 1: _____
 - Radius: _____m
 - Resolution: _____m
- d. Depth
- Minimum: _____m
 - Maximum: _____m
- PRODUCT SURFACE (CONTOURS):
- Scale: 1: _____
 - Radius: _____m
 - Resolution: _____m
- III. SHIFTED SURFACE:
- Single Shift Value: _____ *[-0.229m (feet), (≤ 10 fathoms)]*
[-1.372m (fathoms), (> 10 fathoms)]
- IV. CONTOUR LAYER:
- Use a Depth List: XXXXXX NOAA depth curves list.txt

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Depth List:

b. Output Options:

i. Create contour lines:

1. Line Object: DEPCNT
2. Value Attribute: VALDCO

V. SOUNDING SELECTION:

a. Selection Criteria:

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

VI. FEATURES:

a. Brought in from Survey

Total No. 76

b. Brought in from ENC

ENC: # 4

Total No. 80

VII. META-OBJECTS:

a. M_COVR attributes

Acronym	Value
SORDAT	20061215
CATCOV	Available
SORIND	US,US,survey,H11621

b. M_QUAL attributes

Acronym	Value
CATZOC	Not assessed
INFORM	H11621,S-J977-KR-FU,Fugro Pelagos Inc.
POSACC	10
SORDAT	20061215
SORIND	US,US,survey,H11621
SUREND	20061215
SURSTA	20061004
TECSOU	Echo sounder, sss

c. DEPARE attributes

Acronym	Value
DRVALV 1	0.164 ft
DRVALV2	42.673ft
SORDAT	20061215
SORIND	US,US,nsurf,H11621

d. M_CSCL attributes

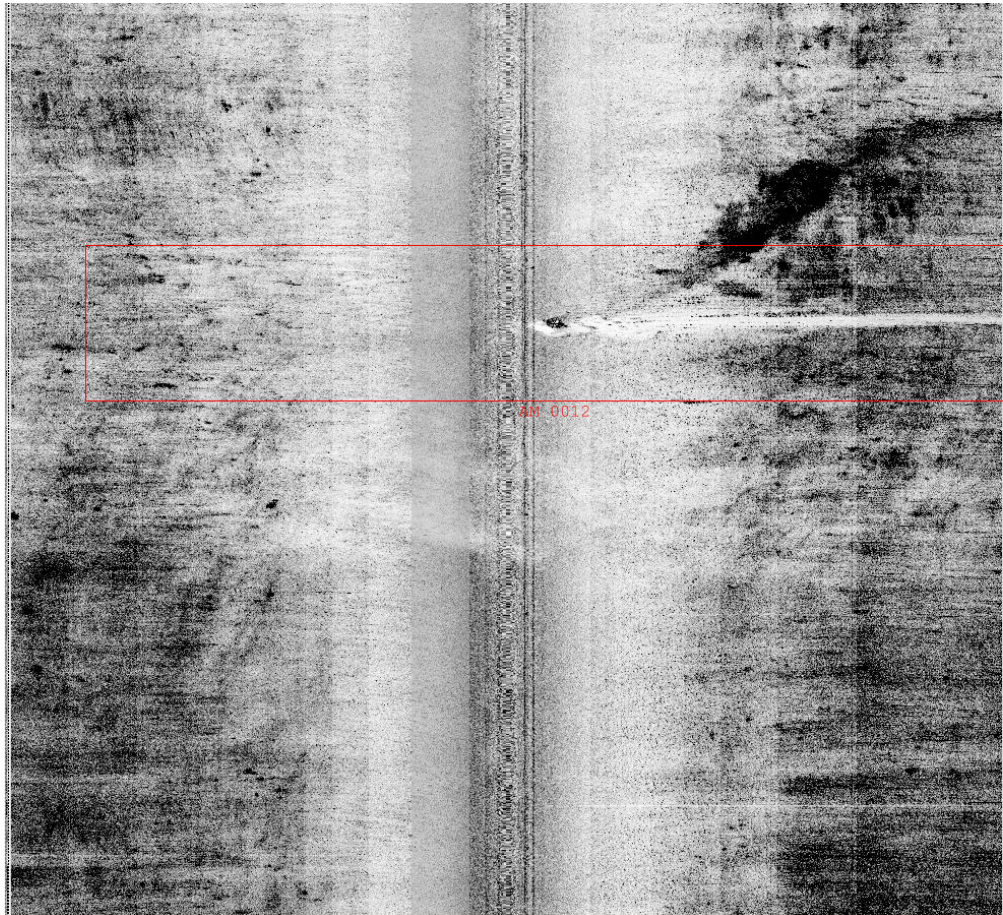
Acronym	Value
CSCALE	
SORDAT	
SORIND	

VIII. NOTES:

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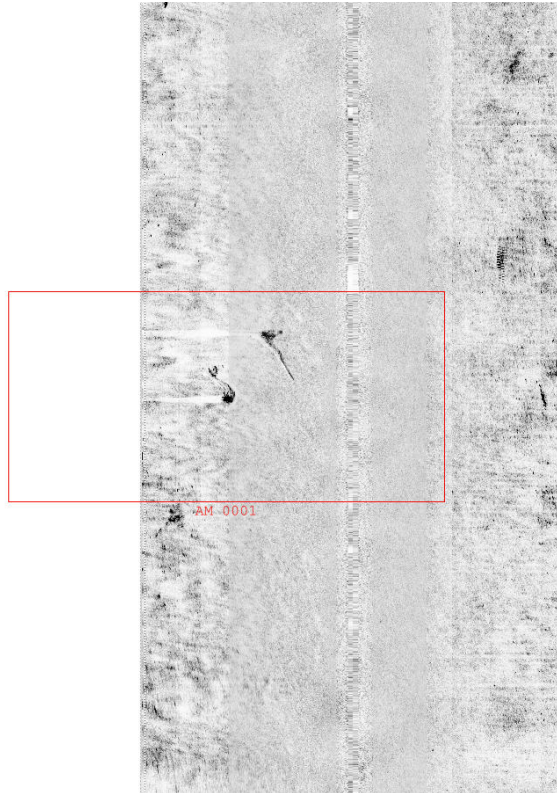
- The standard procedure used to produce the VALSOU for features from SSS was to measure the height of the object in SSS editor and subtract that from the nearest depth node in the single beam.
- The DR contains a list of all Aids to Navigation that were located out of place. It is recommended to defer charting disposition to MCD as many of them could have since been relocated by the USCG. It was noted that the USCG was relocating the buoys during the course of the survey.
- The DR does not list the features found by the field unit. These features can be found in excel file H11621_Final_Contacts.xls located in the H:\Compilation\H11621_J977_FUGRO\AHB\COMPILE\Working\Reports. Many of the features were disproven and not added to the chart. Those that are being updated on the chart are located in H11621_AHB_Final_Contacts located in the same Reports file.
- Feature 41-3 looks like a gas leak, not a 1.23m obstruction. Should it be charted as an obstruction least depth unknown and take off the depth altogether? Should it be removed from the feature file? 30-18-47.03N 088-16-31.04W



Version 1.0

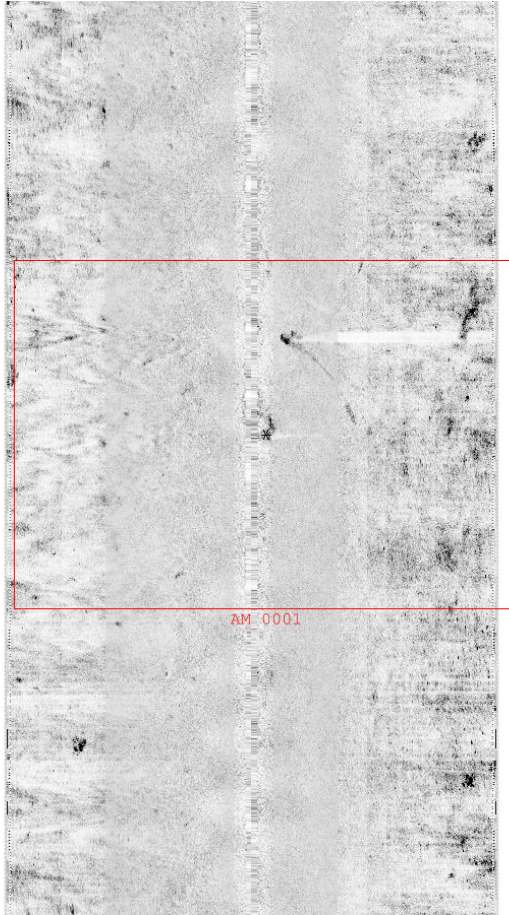
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- Feature 42-3 again looks like a gas leak not a DToN contact. They have the positioning from 4 sss contacts and ran a single beam line over the contact. There is nothing in the single beam but a small hole, possibly where the seabed is being scoured under the pipe. Unsure if should be charted as a feature or submitted as DToN.



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- Wreck PA located at 30° 14' 4.35" N 88° 15' 49.18" W not addressed in DR. There is not enough data available to disprove wreck therefore it is recommended to retain the wreck as charted. As such it was retained from the ENC.
- Wreck PD (rep cov 1ft) located at 30° 15' 39.88" N 88° 23' 32.45" W was neither address in DR nor was it fully developed and can not be disproven. It is recommended to retain as charted. As such it was retained from the ENC.
- Obstr located at 30° 18' 24.10N 88° 14' 14.95" was not addressed by the field in the DR. It is visible in the SSS and it is recommended to retain as charted. As such it was retained from the ENC.
- Address shifting shoreline around Dauphin Island in ER. Suggest defer charting disposition to MCD.
- Deleted four obstructions along the west side of Dauphin Island West Point and replaced with an area obstruction with unknown least depth.

As this is a dynamic area with changing shoals, it is highly recommended to re-survey this area. Because of the tide bust we were unable to use a large amount of data forcing us to retain 254 soundings that could have been updated had the bathy data been clean of

Version 1.0

This Document is for Office Process use only and is intended to supplement, not supersede or replace, information/recommendations in the Descriptive or Evaluation Reports errors. Additionally all features added to the survey must be labeled as 'reported' as none of them were fully developed. As such the depth values had to be ascertained by measuring the shadow height in SSS then subtracting that from the nearest node with a depth value from the single beam.

APPROVAL SHEET
H11621

Initial Approvals:

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

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

Mark Opdyke
Hydrographic Intern
Atlantic Hydrographic Branch

Deborah A. Bland
Cartographer
Atlantic Hydrographic Branch

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

Approved: _____
Shepard Smith
Commander, NOAA
Chief, Atlantic Hydrographic Branch