H11807

NOAA FORM 76-35A

U.S. DEPARTMENT OF COMMERCE

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY

DESCRIPTIVE REPORT

Type of Survey: Hydrographic

Field No OPR-K977-FU-08

Registry Number: H11807

LOCALITY

State: Louisiana

General Locality: Gulf of Mexico

Sub-locality: Vicinity of Grand Bayou Pass

2009

CHIEF OF PARTY
David D. Briggs

LIBRARY & ARCHIVES

DATE

Cover Sheet (NOAA Form 76-35A)

Title Sheet (NOAA Form 77-28)

NOAA FORM 77-28 (11-72)	U.S. DEPARTM NATIONAL OCEANIC AND ATMOSPHERI	IENT OF COMMERCE	REGISTER NO.
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			H11807
HYDROGRAPHI	IC TITLE SHEET		
			FIELD NO.
	Hydrographic Sheet should be accompanied, when the sheet is forwarded to the Office	by this form, filled in	TILLD NO.
State Louisiana	1		
General Locality <u>G</u>	Gulf of Mexico		
Locality Vicinity	of Grand Bayou Pass		_
Scale n/a		_ Date of Survey 0	9/19/08 – 03/29/09
Instructions dated <u>N</u>	May 28, 2008	Project No. OPR-	K977-FU-08
Vessel R/V LOCA	TOR (CF-4540-NB) and R/V CHINOOK	X (AK-1437-K)	
Chief of party <u>David</u>	d D. Briggs		
Surveyed by BRIGG	SS, POECKERT, ORTHMANN, GILL, F	FARLEY, MOUNT, 1	ROYKTA, GOSS, HOLLY, ET AL
Soundings taken by SEABAT 8101 MBI	echo sounder, hand lead, pole <u>ODOM DI</u> ES (LOCATOR - POLE MOUNT)	F3200 SBES (HULL	MOUNTED BOTH VESSELS), RESON
Graphic record scale	ed by <u>FUGRO PELAGOS, INC. PERSO</u>	NNEL	
Graphic record check	ked by FUGRO PELAGOS, INC. PERS	ONNEL	
Protracted by N/A		_ Automated plot by	<u>N/A</u>
Verification by			
Soundings in	METERS at MLLW		
H-Cell Compile	ation units in: Feet at M	LLW	
	urpose of this work is to provide NOAA vinity of Grand Bayou Pass.	with a modern hydrog	graphic and debris mapping survey in the Gulf
ALL TIMES ARE R	RECORDED IN UTC.		
		PELAGOS INC UFFIN ROAD	
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NOAA FORM 77-28 SUPERSEDES FORM C & GS-537

U.S. GOVERNMENT PRINTING OFFICE: 1986 - 652-007/41215

A - Area Surveyed

H11807 (Sheet D) is located in the Gulf of Mexico in the vicinity of Grand Bayou Pass. It is bound by the coordinates listed below.

Hydrographic data collection began on September 19, 2008 and ended on March 29, 2009. *Concur.*

Table 1 – H11807 Sheet Limits

	Sheet Limit H11807 Sheet D	ts
Point #	Positions of Degrees Latitude (N)	on NAD83 Degrees Longitude (W)
1	29-18-33.263	89-48-14.999
2	29-16-56.928	89-40-50.187
3	29-11-2.797	89-42-34.558
4	29-10-10.613	89-48-05.131

H11807 (Sheet D) Vicinity of Grand Bayou Pass, LA Surveyed September 19, 2008 – March 29, 2009							
Vessel	LNM	LNM	LNM	LNM	Bottom	Investigations	Sq.
	SBES	SSS	MBES	Crosslines	Samples		NM
Locator	929.0	921.8	6.5	134.8			
Chinook	1253.8	1174.5	0	64.5			
Total	2182.8	2096.3	6.5	199.3	37		39.5
	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			1		L	

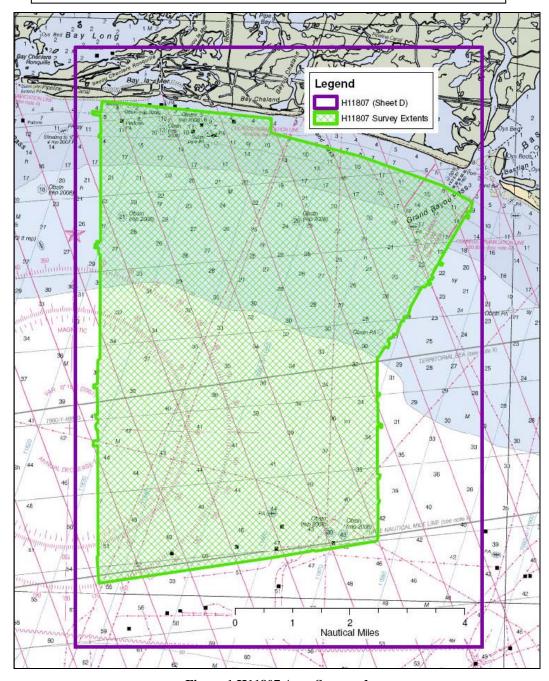


Figure 1 H11807 Area Surveyed

B – Data Acquisition & Processing

Refer to the OPR-K977-FU-08 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.

*Submitted with H-Cell Deliverable

Equipment & Vessels

The R/V Chinook and the R/V Locator acquired all sounding and sidescan data for H11807. The Chinook (28' in length with a draft of 18"), and the Locator (25' in length with a draft of 18") were equipped with ODOM DF3200 singlebeam echosounders and Klein model 3000 sidescan sonars. 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 singlebeam RAW files logged by WinFrog v3.08.23 and sidescan XTF files logged by Triton ISIS 7.1.500.111.

The R/V Locator was also equipped with a Reson Seabat 8101 multibeam echosounder for target verification. Multibeam data was logged in XTF format in Winfrog v3.08.23.

Refer to OPR-K977-FU-08 Data Acquisition & Processing Report* for a complete listing of equipment and vessel descriptions.

*Submitted with H-Cell Deliverable

Quality Control

Crosslines

Quality control crosslines were planned so that most main scheme lines would intersect at least one crossline, were well-distributed geographically, and that total crossline nautical miles ran would total at least 8% of the main scheme nautical miles.

Total singlebeam crossline length surveyed was 199.3 nautical miles or 9.1 percent of the total main scheme line length. Each crossline was compared to a 5m BASE surface created from all main scheme lines, using the CARIS HIPS QC report routine. All singlebeam soundings passed at 95% or better.

Formal multibeam crosslines were not logged separately because most multibeam lines were acquired over individual targets in a hatch-like pattern (perpendicular and intersecting with each other). Therefore, for the purpose of QC report generation, a random sampling of eastwest oriented multibeam lines were used as crosslines and compared to a 0.15m BASE surface generated from north-south oriented multibeam lines. All multibeam soundings passed at 95% or better. *Concur*.

QC reports are located in Separate IV* (Crossline Comparisons).

*Filed with original field records

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 as:

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

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

It should be noted that most crosslines for this project were run inshore past the edge of the main scheme survey area, terminating in around eight feet of water. This was done to provide the approximate position of the depth contours inshore of the survey limit. As this data was not main scheme, it is not included in the accompanying fieldsheet or XYZ file; however, it is available within the CARIS project, if required.

Survey Junctions

H11807 (Sheet D) junctions with:

Registry # Date Junction Side H11806 2009 West

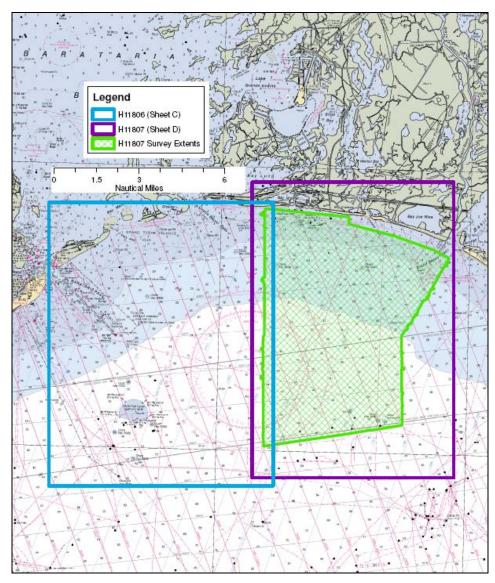


Figure 2 H11807 Survey Junctions

The surveys are in agreement along their common borders. The agreement was noted in the field using the mosaics created during sidescan processing. The conformity is also apparent in the final Shoal Biased Surfaces.

Quality Control Checks

During the hydrographic project OPR-K977-FU-08, the R/Vs Locator and Chinook conducted a number of confidence checks. Confidence checks for the singlebeam consisted of weekly lead line checks. Multibeam data collected with the Reson 8101 on the Locator, and data sets collected with the ODOM DF3200 systems that were installed on the Locator and Chinook respectively, compared within 5 to 10 centimeters. Sidescan 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 Sidescan Sonar Daily Confidence Checks.

Positioning system confidence checks were conducted on a daily basis using the POS MV controller software. The controller software had numerous real time displays that were monitored throughout the survey to ensure that the positional accuracies specified in the NOSHydrographic Surveys Specifications and Deliverables (version May 2008) 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.

Since final positions were derived using a post-processed kinematic GPS (PPK) process, as an independent check these positions were compared to positions determined in real time using DGPS (USCG). Agreement was well within specifications. *Filed with original field records.

Data Quality

In general, the singlebeam, sidescan sonar, and multibeam data quality for H11807 were good. Any deviations are noted below. Refer to the OPR-K977-FU-08 Data Acquisition and Processing Report* for a detailed description of the survey equipment and methodology used over the course of this survey. * Submitted with H-Cell Deliverable

1. The 100% sidescan sonar coverages show some holidays when viewed separately. This was usually due to missed (unlogged) pings when oriented across track.

However, when both 100% coverages are merged, there are no holidays, demonstrating that the areas in the holidays were ensonified at least once. If the second 100% coverage indicated a feature, then the feature was investigated with multibeam.

The issue was discussed with the NOAA COTR prior to leaving the field. See Appendix V (Supplemental Survey Records) * for a record. An example is illustrated below. *Concur* **Appended to this report*

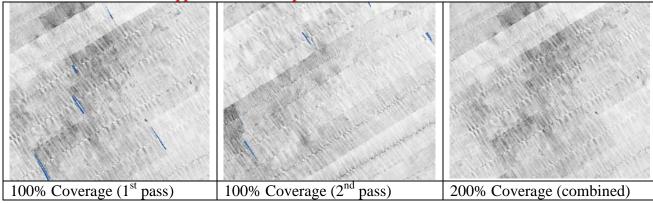


Figure 3 Holidays in 100% coverages

- 2. A positioning bust or mismatch is apparent in the sidescan data when features captured on adjacent lines are plotted together. The error was on the order of one to four meters depending on feature distance from nadir, being worse on the outside edge of the swath. The cause was identified as a latency issue whereby pings output by the Klein sidescan system were time tagged in the ISIS Sonar logging software five to eight pings late and therefore paired with slightly out of sync navigation and yaw records. The issue was addressed in the feature processing software (Target Analyst) by placing the final position of features midway between two offset features, which correlated well with the multibeam positions. All final feature positions are within specifications. Concur
- 3. A vertical oscillation that correlates to weather conditions is evident in the singlebeam data. Despite an apparent error of 0.10 to 0.20 m, the data is within specifications and passes QC in the crossline comparisons. *Concur*
- 4. An apparent dredge pipeline was found in the survey area and is indicated on the excerpt from Chart 11358 shown below. Portions of the pipeline were found in Sheet H11807 (green arrow). It appears a section of pipeline in the adjacent sheet may have been damaged or broken during one of the recent hurricanes (Gustav or Ike) and is now in two parts (red arrows). Various buoys consisting of 55 gallon steel drums were found along the pipeline route. This pipeline is part of a dredge operation by Great Lakes Dredge & Dock Co. This company was in the process of laying pipe at the time of this survey to the east of the two broken pipes (green arrow). The pipeline sections are visible in the dataset but are all temporary features that are subject to removal by the dredge company. AHB contacted Great Lakes Dredging Company (GLDD) and inquired whether or not the dredged pipes remained in the area. GLDD informed AHB that the dredge pipes reported above and contained within the bathymetric VBES data has been removed. AHB edited the VBES data to remove the depths associated with the dredge pipes. No charting action is required. Reference email from GLDD located in DR Appendix 5 Supplemental Survey Records, appended to this report

The coordinates for the ends of the pipelines are:

West section: 29-17-10N 089-49-40W to 29-16-18N 089-50-06W

East section: 29-16-56N 089-48-07W to 29-17-39N 089-49-16W Concur

Green arrow in Figure 4 29-17-35.8N 089-45-34.6W to 29-17-46.8N 089-44-53.4W

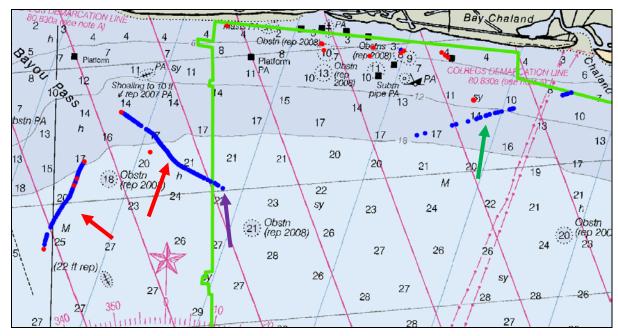


Figure 4 Contacts acquired on dredge pipes

Corrections to Echo Soundings

Refer to the OPR-K977-FU-08 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. *Submitted with H-Cell Deliverable

Data Processing

Refer to the OPR-K977-FU-08 Data Acquisition and Processing* Report for a detailed description of the processing flow. *Submitted with H-Cell Deliverable

The final mosaics for H11807 are located in the provided Sidescan Sonar Mosaics directory. These demonstrate that the 200% coverage requirements of OPR-K977-FU-08 were met (except as addressed above under data quality), and are divided into 100% coverage sets as required in the Specifications and Deliverables. To keep file sizes reasonable, the survey sheet was divided into three survey blocks. The geotifs and accompanying CARIS fieldsheets are named as follows:

SHT_D01_Coverage_1	Survey Block D01 Pass 1 (100% coverage from first pass)
SHT_D01_Coverage_2	Survey Block D01 Pass 2 (100% coverage from second pass)
SHT_D02_Coverage_1	Survey Block D02 Pass 1 (100% coverage from first pass)
SHT_D02_Coverage_2	Survey Block D02 Pass 2 (100% coverage from second pass)
SHT_D03_Coverage_1	Survey Block D03 Pass 1 (100% coverage from first pass)
SHT_D03_Coverage_2	Survey Block D03 Pass 2 (100% coverage from second pass)
SHT_D04_Coverage_1	Survey Block D04 Pass 1 (100% coverage from first pass)
SHT_D04_Coverage_2	Survey Block D04 Pass 2 (100% coverage from second pass)

The final S-57 file for this project is called "H11807_S57_Features.000". This file contains all features, meta features, and bottom sample feature data for this project in S-57 format as required. *Concur*

In CARIS HIPS, a fieldsheet was created and all final main scheme singlebeam data was gridded as a BASE surface (uncertainty mode) at 1m and 5m resolution. This fieldsheet is included and is called "H11807_Final". In addition, a fieldsheet was created and all final verification multibeam data was gridded as a BASE surface (uncertainty mode) at 0.5m resolution. This fieldsheet is included and is called "H11807_Contacts_Final".

An XYZ file containing soundings at a 5m interval was created by exporting the soundings out of CARIS HIPS to XYZ format, binning at 5 meters (shoal biased). This file is called "H11807_XYZ_Soundings_5m.txt".

Note that an S-57 file containing soundings is not included as per email instructions from the COTAR (see Appendix V – Supplemental Survey Records*). *Appended to this report

C-Vertical & Horizontal Control

Refer to the OPR-K977-FU-08 Horizontal and Vertical Control Report* for a detailed description of the horizontal and vertical control used. No deviations from the report occurred. A summary of the project's horizontal and vertical control follows.

*Submitted with H-Cell Deliverable

Horizontal Control

The horizontal control datum for this survey was the North American Datum of 1983 (NAD83). All real-time positioning as well as post-processed positioning was done in NAD83.

Vessel position was determined in real time using a Trimble Zephyr dual-frequency GPS antenna, which was connected to a Trimble BD950 dual-frequency GPS card in the POSMV. The POSMV was setup to accept USCG differential corrections, which were output from a CSI MBX-3S Coast Guard beacon receiver. Note: since the pseudorange corrections received by the POSMV are based on the NAD 83 position of the reference station antenna position, all real-time positions were NAD 83. The USCG DGPS stations used are show in the table below.

Table 2 – USCG DGPS Stations

Station	ID	Latitude	Longitude	Frequency	Tx. Rate
Mobile Point	813	30°13.7 N	88°01.4' W	300 kHz	100 bps
English Turn	814	29-52.7 N	89-56.5 W	293 kHz	200 bps

Real-time positions were replaced in processing with a post-processed kinematic (PPK) solution of higher accuracy (also in NAD83). For this purpose, Fugro Pelagos, Inc. established two GPS base stations and logged dual-frequency GPS data continuously during survey operations. This control data was then used in conjunction with the raw GPS data logged aboard each vessel to create the PPK solution. Refer to the Data Acquisition and Processing Report* for more information concerning procedures used. Refer to the Horizontal and Vertical Control report* for base station descriptions. *Submitted with H-Cell Deliverable

Table 3 – Fugro Pelagos Base Stations

Station	ID	Latitude	Longitude	Height	Rec. Rate	Model
Receiver 0001	0001	29-12-57.77185 N	90-01-41.12387 W	-20.777 m	1 hz	Novatel DL4
Receiver 0004	0004	29-12-57.83000 N	90-01-41.18976 W	-20.714 m	1 hz	Novatel DL4

Positioning system confidence checks were conducted on a daily basis using the POS MV controller software. The controller software had numerous real time displays that were monitored throughout the survey to ensure that the positional accuracies specified in the NOS Hydrographic Surveys Specifications and Deliverables (version May 2008) were achieved. These include, but are not limited to the following: GPS Status, Position Accuracy, Receiver Status (which included HDOP) and Satellite Status.

Since final positions were derived using the PPK process, as an independent check these positions were compared to positions determined in real time using DGPS (USCG). Agreement was well within specifications.

Vertical Control

The vertical control datum for this survey was mean lower low water (MLLW). Concur with clarification, sounding datum is MLLW and vertical datum is MHW.

All sounding data were initially reduced to MLLW using observed tidal data from the tidal station located on Grand Isle, LA. During times of outage, the nearby station at Port Fourchon, LA, was used. Both stations were owned and operated by the NOAA's National Ocean Service through the National Water Level Observation Program.

Table 4 - Tide Gauges

l	Gauge	Model	Gauge Type	Location	Latitude	Longitude	Operational
	8761724	AquaTrak	Acoustic	Grand Isle, LA	29-15.8 N	89-57.4 W	N/A
	8762075	AquaTrak	Acoustic	Port Fourchon, LA	29-06.8 N	90-11.9 W	N/A

Table 5 - Final Tide Zones

Zone	Gauge	Primary or Secondary	Time Offset	Range Ratio
CGM364	8761724	PRIM	-36	1.27

Zone	Gauge	Primary or Secondary	Time Offset	Range Ratio
CGM369	8761724	PRIM	-42	1.27
CGM376	8761724	PRIM	-18	0.99
CGM377	8761724	PRIM	-30	0.99
CGM378	8761724	PRIM	-36	0.99
CGM380	8761724	PRIM	-24	1.08
CGM381	8761724	PRIM	-30	1.08
CGM382	8761724	PRIM	-42	1.08
CGM384	8761724	PRIM	-30	1.18
CGM385	8761724	PRIM	-36	1.18
CGM386	8761724	PRIM	-42	1.18
CGM389	8761724	PRIM	-36	1.27
CGM390	8761724	PRIM	-36	1.27
CGM391	8761724	PRIM	-42	1.32
CGM394	8761724	PRIM	-30	1.27
CGM400	8761724	PRIM	-24	1.18
CGM406	8761724	PRIM	-12	0.99
CGM364	8762075	SEC	-6	1.09
CGM369	8762075	SEC	-6	1.09
CGM376	8762075	SEC	12	0.85
CGM377	8762075	SEC	6	0.85
CGM378	8762075	SEC	-6	0.85
CGM380	8762075	SEC	6	0.93
CGM381	8762075	SEC	0	0.93
CGM382	8762075	SEC	-6	0.93
CGM384	8762075	SEC	6	1.01
CGM385	8762075	SEC	-6	1.01
CGM386	8762075	SEC	-12	1.01
CGM389	8762075	SEC	0	1.09
CGM390	8762075	SEC	-6	1.09
CGM391	8762075	SEC	-12	1.13
CGM394	8762075	SEC	0	1.09
CGM400	8762075	SEC	6	1.01
CGM406	8762075	SEC	18	0.85

Observed tidal data 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 in use was updated daily by appending the new data as it became available.

On April 12, 2009, verified tide data was acquired from the National Water Level Observation Program accessed through the NOAA tides and currents website (http://tidesandcurrents.noaa.gov/). The verified data was smoothed and applied to all

sounding data in CARIS HIPS using tidal zones provided by NOAA. All sounding data was then remerged. The Grand Isle, LA (8761724) was used as the primary tidal station while Port Fourchon (8762075) was used as the secondary tidal station. Verified tidal data were used for all final Navigation Base Surfaces, soundings, 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. *Submitted with H-Cell Deliverable

D – Results and Recommendations

Chart Comparison

H11807 survey was compared with charts:

Chart Number	Scale	Edition	Edition Date
11358 (raster	1:80,000	54 th	Feb. 2007
and ENC)			
11364	1:80,000	42 nd	Sept. 2007
11366	1:250,000	12 th	April 2009

Comparison of Soundings

For chart comparison, the main scheme singlebeam data was used to generate shoal biased soundings and contours in CARIS Fieldsheet Editor, and overlaid on the latest edition charts. The soundings and contours were then compared to those as charted.

General agreement was found between charted soundings and soundings acquired during the survey. Most soundings agree to within 1-5 feet, and this disagreement trends towards deeper depths for this survey then charted. *Concur*.

Exceptions are noted below.

1. Depths in northern section of the survey area (north of the 18 ft contour on Charts 11358 & 11364) were found to be significantly deeper (6-9 ft) than the charted soundings in this area. *Concur*.

Note that most crosslines for this project were run inshore past the edge of the main scheme survey area, terminating in around eight feet of water. This was done to provide the approximate position of the depth contours inshore of the survey limit. As this data was not main scheme, it is not included in the accompanying fieldsheet or XYZ file; however, it is available within the CARIS project if required.

<u>Automated Wreck and Observation Information System</u>

There were 5 AWOIS items assigned to H11807. The results of each investigation are itemized below.

- 1. AWOIS item 14252, "Obstruction", at 29-18-03.00 N, 89-46-08.00 W (shown as a Submerged Pipe PA on Chart 11358, 11364, 11366, & ENC) was not found by this survey. The area received 200% sidescan coverage with no sign of an obstruction. Recommend update to AWOIS database and recommend removal from chart. Concur. Object was not identified by SSS or bathymetric data and is considered disproved.
- 2. AWOIS item 14277, "Obstruction", at 29-14-39.20 N, 89-42-36.50 W (shown as Obstruction PA on Chart 11358, 11366, & ENC) was not found by this survey. The area received 200% sidescan coverage with no sign of an obstruction. Recommend update to AWOIS database and recommend removal from chart. Concur. Object was not identified by SSS or bathymetric data and is considered disproved.
- 3. AWOIS item 14268 "Mr. Ted", at 29-11-27.00 N, 89-44-40.00 W (shown as a Wreck PA on Chart 11358, 11366, & ENC) was not found by this survey. The area received 200% sidescan coverage with no sign of a wreck or obstruction. Recommend update to AWOIS database and recommend removal from chart. *Concur. Object was not identified by SSS or bathymetric data and is considered disproved.*
- 4. AWOIS item 13448 "Dahn Fiho", at 29-16-30.00 N, 89-42-00.00 W (shown as a Wreck PA on Chart 11358, 11366, & ENC) was not found by this survey. The area received 200% sidescan coverage with no sign of a wreck or obstruction. Recommend update to AWOIS database and recommend removal from chart. Concur. Object was not identified by SSS or bathymetric data and is considered disproved.
- 5. AWOIS item 14273 "Unknown", at 29-18-00.00 N, 89-46-00.00 W (shown as an Exposed Wreck PA on Chart 11358, 11366, & ENC) was not found by this survey. The area received 200% sidescan coverage and visual inspection with no sign of a wreck or obstruction. Recommend update to AWOIS database and recommend removal from chart. Concur. Object was not identified by SSS or bathymetric data and is considered disproved.

Charted Features

All charted features within the extents of survey H11807 (see Table of Charts) were investigated. All submerged features received 200 percent sidescan coverage with a Klein 3000 Sidescan Sonar. All surface charted features were also investigated visually. Positioning and descriptions of surface features was acquired and logged using the POSMV DGPS positioning and Winfrog v3.08.23.

Note that the contacts found by sidescan during this project are listed in Separate V* (Sidescan Contact List). These contacts were submitted weekly to the government during the course of the project and are subject to removal as possible hurricane debris. All contacts determined to be significant nature have been depicted in the S-57 feature file and commented on below. All contacts found to be dangers to navigation were submitted to AHB and can be found in Appendix I**. *Filed with original field records **Appended to this report

- 1. Charted platform at 29-10-43.20 N, 89-46-38.98 W (Chart 11358 & ENC) was not found by this survey. The area received 200% sidescan coverage and visual inspection with no sign of a platform. Recommend removal from chart. *Concur.*
- 2. Charted platform at 29-10-52.81 N, 89-45-21.85 W (Chart 11358 & ENC) was not found by this survey. The area received 200% sidescan coverage and visual inspection with no sign of a platform. Recommend removal from chart. *Concur.*
- 3. Charted platform at 29-10-51.66 N, 89-44-34.54 W (Chart 11358 & ENC) was not found by this survey. The area received 200% sidescan coverage and visual inspection with no sign of a platform. Recommend removal from chart. *Concur*.
- 4. Charted platform at 29-11-13.96 N, 89-44-27.87 W (Chart 11358 & ENC) was not found by this survey. The area received 200% sidescan coverage and visual inspection with no sign of a platform. Recommend removal from chart. *Concur.*
- 5. Charted platform at 29-10-58.72 N, 89-43-26.21 W (Chart 11358 & ENC) was not found by this survey. The area received 200% sidescan coverage and visual inspection with no sign of a platform. Recommend removal from chart. *Concur*.
- 6. Charted platform at 29-18-13.02 N, 89-47-50.60 W (Chart 11358, 11366, & ENC) was not found by this survey. The area received 200% sidescan coverage and visual inspection with no sign of a platform. Recommend removal from chart. *Concur*.
- 7. Charted platform at 29-18-04.42 N, 89-46-25.63 W (Chart 11358, 11366, & ENC) was not found by this survey. The area received 200% sidescan coverage and visual inspection with no sign of a platform. Recommend removal from chart. *Concur*.
- 8. Charted platform at 29-18-11.00 N, 89-46-15.05 W (Chart 11358, 11366, & ENC) was not found by this survey. The area received 200% sidescan coverage and visual inspection with no sign of a platform. Recommend removal from chart. *Concur*.
- 9. Charted platform at 29-18-15.33 N, 89-45-36.96 W (Chart 11358, 11366, & ENC) was not found by this survey. The area received 200% sidescan coverage and visual inspection with no sign of a platform. Recommend removal from chart. *Concur*.

Remaining charted features are discussed in the next section.

<u>Features labeled PA, ED, PD, or Rep. not already addressed as AWOIS:</u>

Many PA, ED, PD, or Rep. features were also AWOIS items and are addressed in the AWOIS section. Those not previously discussed are itemized here.

- 1. "Obstn (rep 2008)" with a depth of 21 ft at 29-16-33 N, 089-47-47 W (Chart 11358, 11364, 11366 & ENC) was a product of a DtoN submitted during this survey (report "H11807 DtoN Fugro 112708_1"). Through multibeam verification, the feature was found to be located within a seabed depression and not navigationally significant. Recommend removal from chart. *Concur. Delete obstruction*.
- 2. "Obstn (rep 2008)" with a depth of 9 ft at 29-18-15 N, 089-46-05 W "(Chart 11358, 11364, 11366 & ENC) was a product of a DtoN submitted during this survey (report "H11807 DtoN Fugro 111008"). Through multibeam verification, the feature was found to be located within a seabed depression and not navigationally significant. Recommend removal from chart. *Concur. Delete obstruction*.
- 3. "Obstn (rep 2008)" with a depth of 13 ft at 29-18-05 N, 089-47-02 W (Chart 11358, 11364, 11366 & ENC) was a product of a DtoN submitted during this survey (report "H11807 DtoN Fugro 112708_3"). Feature was confirmed by multibeam and found to have a least depth of 4.047m (13.278ft). Recommend retaining as charted. *Concur with clarification. Delete charted obstruction, chart survey sounding at location.*
- 4. "Obstn (rep 2008)" with a depth of 30 ft at 29-11-10 N, 089-43-32 W (Chart 11358 & ENC) was a product of a DtoN submitted during this survey (report "H11807 DtoN Fugro 112508_1"). Feature was confirmed by multibeam and found to have a least depth of 9.406m (30.860ft). Recommend retaining as charted. Concur with clarification. Delete charted obstruction. Add new obstruction at survey position and depth.
- 5. "Obstn (rep 2008)" with a depth of 43 ft at 29-11-08 N, 089-43-15 W (Chart 11358 & ENC) was a product of a DtoN submitted during this survey (report "H11807 DtoN Fugro 112508_2"). Through multibeam verification, the feature was found to be not navigationally significant. Recommend removal from chart. Concur. The feature submitted as H11807 DtoN #2-3, Item 2.2 was not validated by the submitted data. Office processing concluded this feature was insignificant. Delete charted obstruction.
- 6. "Obstn (rep 2008)" with a depth of 20 ft at 29-16-33.46 N, 089-44-19.32 W (Chart 11358, 11364, 11366 & ENC) was a product of a DtoN submitted during this survey (report "H11807 DtoN Fugro 112508_5"). Feature was confirmed by multibeam and found to have a least depth of 6.267m (20.561ft). Recommend retaining as charted. Concur with clarification. Delete charted obstruction. Add obstruction at survey position and depth.
- 7. "Obstn (rep 2008)" with a depth of 10 ft at 29-18-1716.84 N, 089-47-012 W (Chart 11358, 11364, 11366 & ENC) was a product of a DtoN submitted during this survey

(report "H11807 DtoN Fugro 111008_A"). Feature was confirmed by multibeam and found to have a least depth of 2.828m (9.278ft). Recommend revising obstruction's least depth as depicted in the S-57 feature file. Concur with clarification. Delete charted obstruction. Chart survey sounding at position.

- 8. "Obstn (rep 2008)" with a depth of 8 ft at 29-18-17 N, 089-46-11 W (Chart 11358, 11364, 11366 & ENC) was a product of a DtoN submitted during this survey (report "H11807 DtoN Fugro 111008_C"). Through multibeam verification, the feature was found to be a pipe suspended across a seabed depression and not navigationally significant. Recommend removal from chart. Concur with clarification. Delete charted obstruction. Shoaler survey depths are found within the common area. Chart survey sounding as appropriate.
- 9. "Obstn (rep 2008)" with a depth of 11 ft at 29-18-07.33 N, 089-46-27.12 W (Chart 11358, 11364, 11366 & ENC) was a product of a DtoN submitted during this survey (report "H11807 DtoN Fugro 111008_D"). Feature was confirmed by multibeam and found to have a least depth of 3.925m (12.877ft) Recommend revising obstruction's least depth as depicted in the S-57 feature file. Concur with clarification. Delete charted obstruction. Chart survey sounding at position.
- 10. A new obstruction with a multibeam least depth of 2.972m (9.751ft) at 29-18-187.919 N, 89-45-40 39.960 W was a product of a DtoN submitted during this survey (report "H11807 DtoN Fugro 112708_6"). Recommend placing on chart as depicted in the S-57 feature file. Concur with clarification. Do not chart obstruction. Shoaler survey depths are found within the common area. Chart soundings as appropriate.

Dangers to Navigation See Also Appendix I

Dangers to Navigation were submitted between October 6th, 2008 and December 4th of 2008 (See Appendix I* for Specific Reports). *Appended to this report

DtoN "H11807 DtoN Fugro 112508_3.pdf", an exposed pipeline, was not submitted as an obstruction nor depicted in the S-57 feature file. As per instructions received in email "Field unit DtoN selection in regard to Marine Chart Division application 022609" exposed pipelines and cables found on top of already charted pipeline or cable routes are not to be submitted as charted obstructions. (See Appendix V* Supplemental Survey Records). Concur. *Appended to this report

DtoN "H11807 DtoN Fugro 112508_6.pdf", an exposed pipeline, was not submitted as an obstruction nor depicted in the S-57 feature file. As per instructions received in email "Field unit DtoN selection in regard to Marine Chart Division application 022609" exposed pipelines and cables found on top of already charted pipeline or cable routes are not to be submitted as charted obstructions. (See Appendix V* Supplemental Survey Records). The feature submitted in the Danger report was an obstruction estimated from side scan records. The feature was not submitted to NDB by AHB based upon the fact that the reported item was positioned at the location of a charted platform. The charted platform

was disproved in survey H11807. Recommend to chart sounding at survey position. *Appended to this report

DtoN "H11807 DtoN Fugro 101708.pdf", an exposed pipeline, was not submitted as an obstruction nor depicted in the S-57 feature file. As per instructions received in email "Field unit DtoN selection in regard to Marine Chart Division application 022609" exposed pipelines and cables found on top of already charted pipeline or cable routes are not to be submitted as charted obstructions. (See Appendix V* Supplemental Survey Records). Do not concur. Add obstruction on charted pipeline, least depth 42.385ft at survey position 29-11-14.96N, 89-43-34.67W. *Appended to this report

DtoN "H11807 DtoN Fugro 112708_5.pdf", an exposed cable, was not submitted as an obstruction nor depicted in the S-57 feature file. Through multibeam verification, the feature was found to be not navigationally significant. *Concur*.

DtoN "H11807 DtoN Fugro 112708_6.pdf" was not submitted as an obstruction nor depicted in the S-57 feature file. Through multibeam verification, the feature was found to be not navigationally significant. *Concur*.

DtoN "H11807 DtoN Fugro 112508_4.pdf" was not submitted as an obstruction nor depicted in the S-57 feature file. Through multibeam verification, the feature was found to be not navigationally significant. *Concur*.

DtoN "H11807 DtoN Fugro 120408.pdf", a pipe suspended over a ridge was not submitted as an obstruction nor depicted in the S-57 feature file. Through multibeam verification, the feature was found to be not navigationally significant. *Concur*.

Bottom Samples

The R/V Chinook was fitted to obtain bottom samples as specified in the Statement of Work. The purpose of this was to characterize H11807 for general bottom classification.

Samples were taken with a Van Veen grab sampler and position was recorded with Winfrog v3.08.23. Sediment retrieved from the sampler was examined and then encoded with the appropriate S-57 attributes. Samples were then photographed and discarded (retaining the samples was not required per instructions from the COTR). Positions and descriptions of all samples are found in Appendix V* and in the H11807_S57_Features file. *Concur.* **Appended to this report*

Aids to Navigation

No Aids to Navigation were found or previously charted in H11807. *Concur*

Approval Sheet

For

H11807

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

OPR-K977-FU-08 Statement of Work NOS Hydrographic Surveys Specifications and Deliverables (May 2008) Fugro Pelagos, Inc. Acquisition Procedures (2008-NOAAAcquisitionProcedures); Fugro Pelagos, Inc. Processing Procedures (2008-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, Atlantic Hydrographic Branch.

Approved and forwarded,

7/4/2009

David D. Briggs Lead Hydrographer

Fugro Pelagos, Inc. Survey Party



APPENDIX I -- DANGER TO NAVIGATION REPORTS

H11807 DToN #2-3

Registry Number: H11807

State: Louisiana

Locality: Gulf of Mexico

Sub-locality: Vicinity of Quatre Bayou Pass

Project Number: OR-K977-FU-08

Survey Dates: 09/28/2008 - 11/06/2008

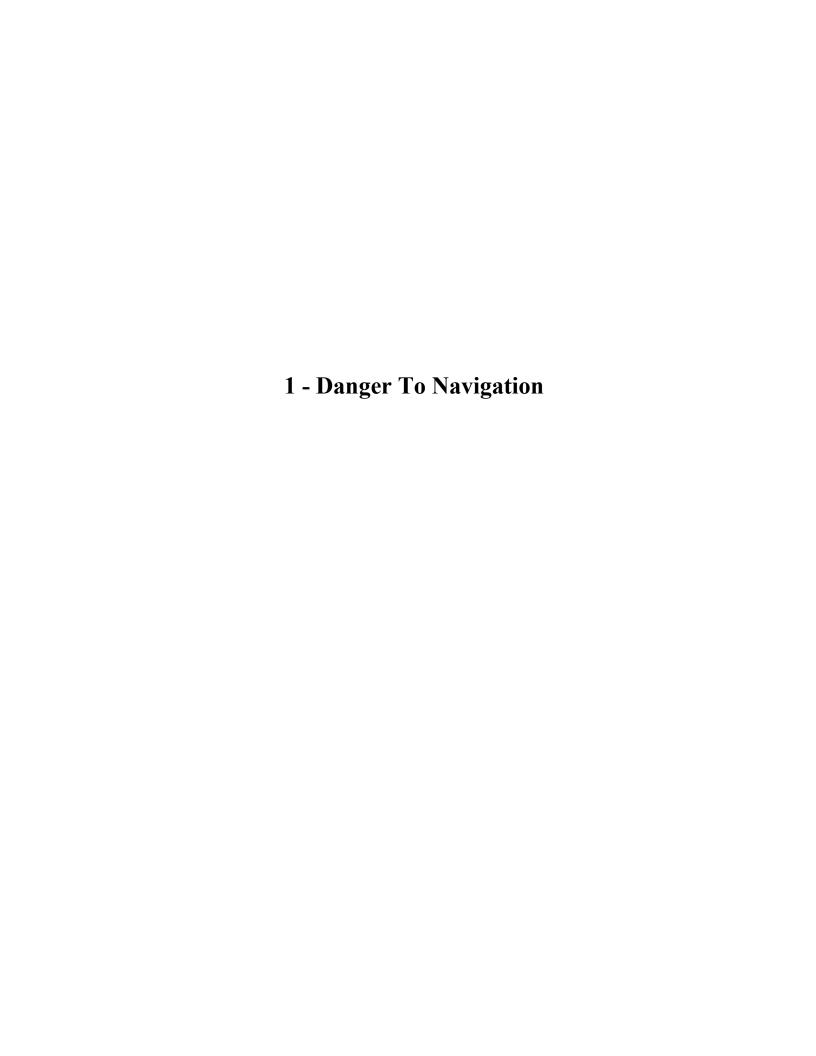
Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
11358	54th	02/01/2007	1:80,000 (11358_1)	USCG LNM: 11/04/2008 (11/04/2008) NGA NTM: 04/28/2007 (11/15/2008)
11364	42nd	09/01/2007	1:80,000 (11364_1)	[L]NTM: ?
11366	11th	01/01/2008	1:250,000 (11366_1)	[L]NTM: ?
11340	72nd	07/01/2007	1:458,596 (11340_1)	[L]NTM: ?
1116A	72nd	07/01/2007	1:458,596 (1116A_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

		Feature	Survey	Survey	Survey	AWOIS
No.	Name	Type	Depth	Latitude	Longitude	Item
1.1	DToN #2.1 30-ft Obstruction	GP	9.27 m	29° 11' 09.7" N	089° 43' 31.5" W	
1.2	DToN#2.2 43-ft Obstruction	GP	13.20 m	29° 11' 07.8" N	089° 43' 14.6" W	
1.3	DToN#2.5 20-ft Obstruction	GP	6.22 m	29° 16' 33.4" N	089° 44' 19.2" W	
1.4	DToN#3.1 21-ft Obstruction	GP	6.46 m	29° 16' 33.3" N	089° 47' 47.4" W	
1.5	DToN#3.2 11-ft Obstruction	GP	3.51 m	29° 18' 14.7" N	089° 46' 05.3" W	
1.6	DToN#3.3 13-ft Obstruction	GP	3.99 m	29° 18' 04.9" N	089° 47' 02.2" W	



1.1) DToN #2.1 31-ft Obstruction

DANGER TO NAVIGATION

Survey Summary

Survey Position: 29° 11′ 09.7″ N, 089° 43′ 31.4″ W

Least Depth: 9.41 m (= 30.86 ft = 5.143 fm = 5 fm 0.86 ft)

TPU ($\pm 1.96\sigma$): THU (TPEh) [None]; TVU (TPEv) [None]

Timestamp: 2008-272.00:00:00.000 (09/28/2008)

GP Dataset: H11807 DToN#2-3.xls

GP No.: 1

Charts Affected: 11358 1, 11366 1, 1116A 1, 11340 1, 11006 1, 411 1

Remarks:

A significant obstruction was found at this location. The object appears to be debris on the seabed. The object had an estimated height of at least 9.5ft, a length of 26.4ft, a width of 17.7ft, and an estimated clearance depth of 11.5ft, based on sidescan sonar data. It should be noted that in the sidescan sonar data the acoustic shadow extends to the edge of the sonar range and the height estimate is thus a lower limit. The multibeam sonar data show the obstruction to be 17.2ft high with a clearance depth of 30.4ft. Chart 11358 shows no obstruction at this location. (FPI Contact Reference 2D03-58000002-M.

The sidescan sonar image (Speed corrected waterfall display) shows a 130X130ft area approximately centered at the location. The obstruction is the bright feature with a dark narrow shadow to the right. Note that the acoustic shadow shows structure indicative of multiple vertical "legs". The multibeam bathymetry image shows the bathymetry over a 130X130ft area with the depth scale in meters. An excerpt from the chart 11358 is shown with a red arrow indicating the location of the obstruction (small cyan circle).

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11807_DToN#2-3.xls	1	0.00	000.0	Primary

Hydrographer Recommendations

Chart 31-ft Obstruction.

Cartographically-Rounded Depth (Affected Charts):

```
31ft (11358_1)
5fm (1116A_1, 11340_1, 11006_1, 411_1)
5fm 1ft (11366_1)
```

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: QUASOU - 6:least depth known

SORDAT - 20090329

SORIND - US, US, graph, H11807

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

VALSOU - 9.406 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

Concur with clarification. Delete charted obstruction. Add new obstruction at survey position and depth.

Feature Images

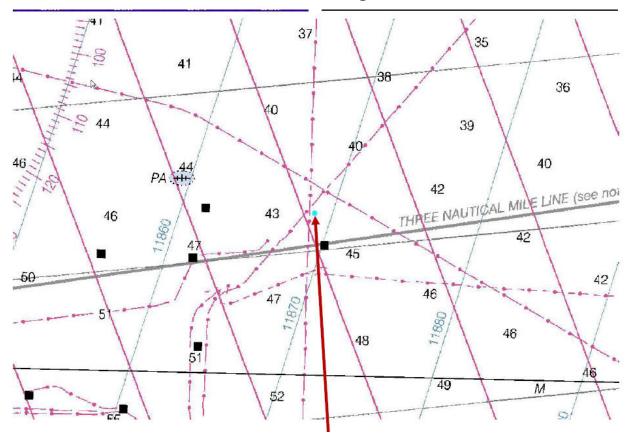


Figure 1.1.1

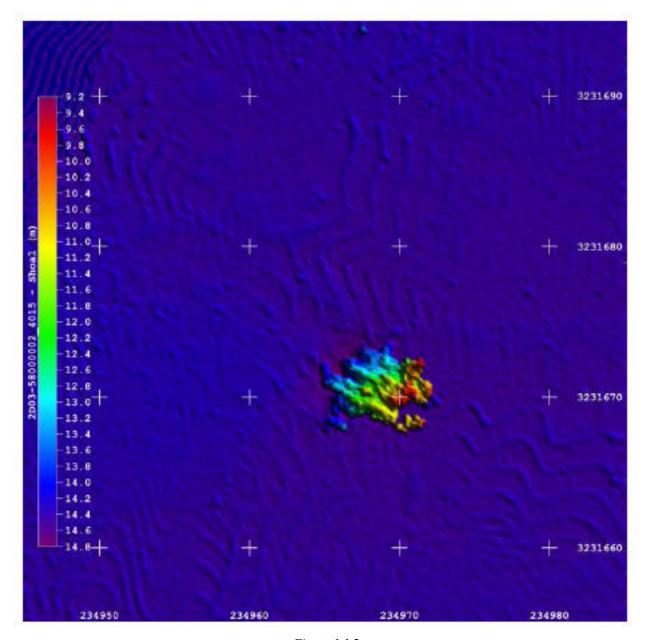


Figure 1.1.2

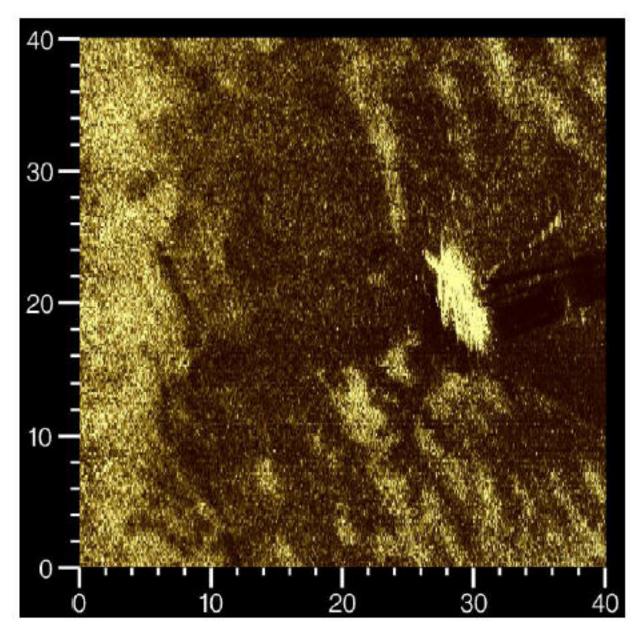


Figure 1.1.3

1.2) DToN#2.2 43-ft Obstruction

DANGER TO NAVIGATION

Survey Summary

Survey Position: 29° 11′ 07.8″ N, 089° 43′ 14.6″ W

Least Depth: 13.20 m = 43.30 ft = 7.217 fm = 7 fm = 1.30 ft

TPU ($\pm 1.96\sigma$): THU (TPEh) [None]; TVU (TPEv) [None]

Timestamp: 2008-272.00:00:00.000 (09/28/2008)

GP Dataset: H11807 DToN#2-3.xls

GP No.: 2

Charts Affected: 11358 1, 11366 1, 1116A 1, 11340 1, 11006 1, 411 1

Remarks:

A significant obstruction was found at this location. The object appears to be a length of cable or small diameter pipeline. The object had an estimated height of 0.6ft, a length of 59.6ft, a width of 1.8ft, and an estimated clearance depth of 47.3ft, based on sidescan sonar data. The multibeam sonar data show the obstruction to be 4.3ft high with a clearance depth of 43.3ft. Chart 11358 does not indicate an obstruction at this location. (FPI Contact Reference 2D03-57600001-M)

The sidescan sonar image (Speed corrected waterfall display) shows a 130X130ft area approximately centered at the location. The obstruction is the bright, thin, "L" shaped feature with the shallowest point being at the lower end of the object. The multibeam bathymetry image shows the bathymetry over a 130X130ft area with the depth scale (left side of the image) in meters. An excerpt from chart 11258 with a red arrow indicating the location of the obstruction (small cyan circle).

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11807_DToN#2-3.xls	2	0.00	000.0	Primary

Hydrographer Recommendations

Chart 43-ft Obstruction.

Cartographically-Rounded Depth (Affected Charts):

```
43ft (11358_1)
7 ¼fm (1116A_1, 11340_1, 11006_1, 411_1)
7fm 1ft (11366_1)
```

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: QUASOU - 6:least depth known

SORDAT - 20090329

SORIND - US, US, graph, H11807

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

VALSOU - 13.1978396 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

Concur with clarification. The feature was not validated by the submitted data. Office processing concluded this feature was insignificant. Delete charted obstruction.

Feature Images

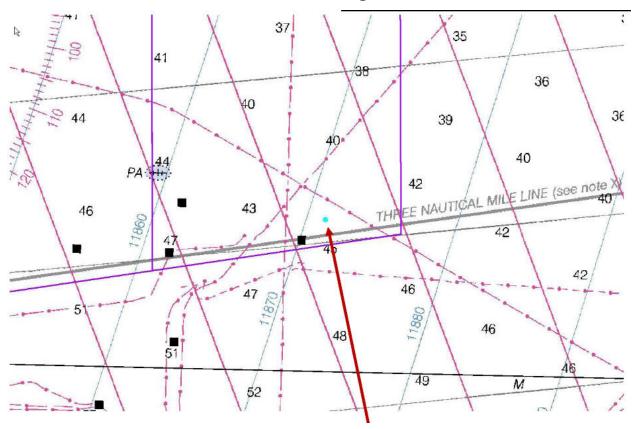


Figure 1.2.1

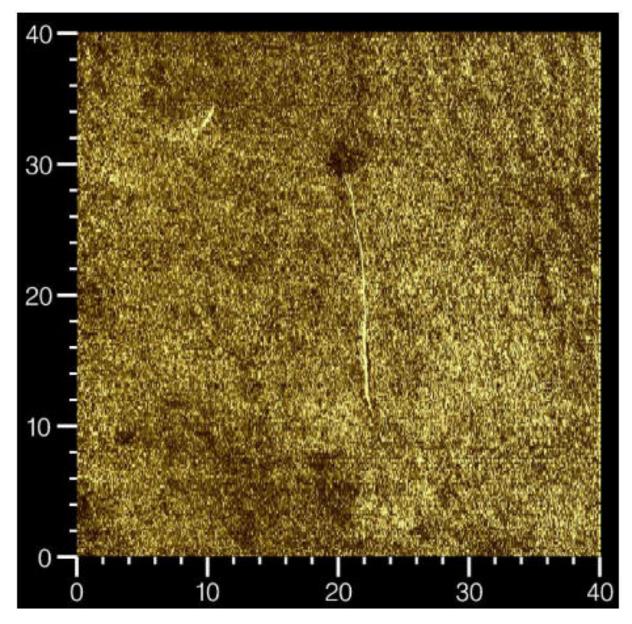
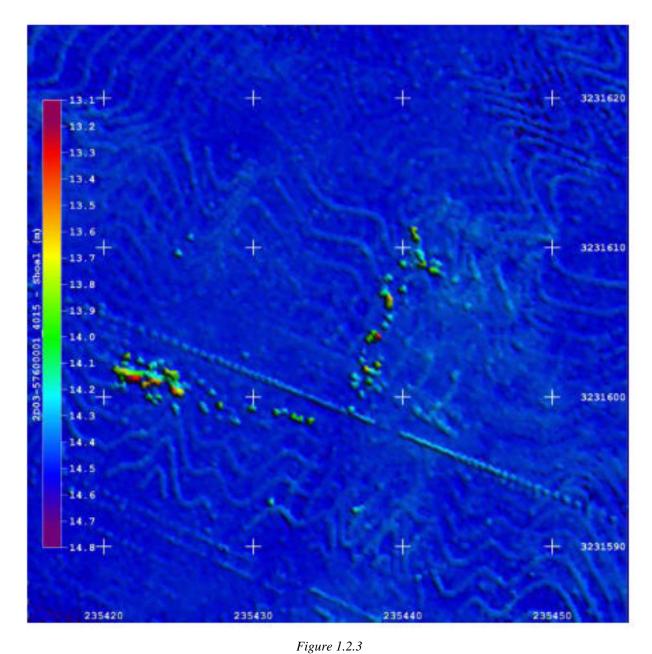


Figure 1.2.2



1.3) DToN#2.5 20-ft Obstruction

DANGER TO NAVIGATION

Survey Summary

Survey Position: 29° 16′ 33.5″ N, 089° 44′ 19.3″ W

Least Depth: 6.27 m = 20.56 ft = 3.427 fm = 3 fm 2.56 ft

TPU ($\pm 1.96\sigma$): THU (TPEh) [None]; TVU (TPEv) [None]

Timestamp: 2008-275.00:00:00.000 (10/01/2008)

GP Dataset: H11807 DToN#2-3.xls

GP No.: 3

Charts Affected: 11358 1, 11364 1, 11366 1, 1116A 1, 11340 1, 11006 1, 411 1

Remarks:

A significant obstruction was found at this location. The object had an estimated height of 2.1ft, a length of 17.4ft, a width of 4.0ft and a clearance depth of 23.9ft, based on sidescan sonar data. The multibeam sonar data show the object height to be 5.8ft high with a clearance depth of 20.4ft. Chart 11358 does not indicate an obstruction at this location. (FPI Contact Reference 1D04-25100001-M)

The sidescan sonar image (speed corrected waterfall display) shows a 130X130ft area approximately centered at the location. The bright object with the small shadow to the left is the obstruction. The multibeam bathymetry image shows the bathymetry over a 130X130ft area with the depth scale (left side of image) in meters. An excerpt from Chart 11358 with a red arrow indicating the location of the obstruction (small cyan circle).

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11807_DToN#2-3.xls	3	0.00	000.0	Primary

Hydrographer Recommendations

Chart 20-ft Obstruction.

Cartographically-Rounded Depth (Affected Charts):

```
20ft (11358_1, 11364_1)
3 ½fm (1116A_1, 11340_1, 11006_1, 411_1)
3fm 3ft (11366_1)
```

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: QUASOU - 6:least depth known

SORDAT - 20090329

SORIND - US, US, graph, H11807

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

VALSOU - 6.267 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

Concur with clarification. Delete charted obstruction. Add obstruction at survey position and depth.

Feature Images

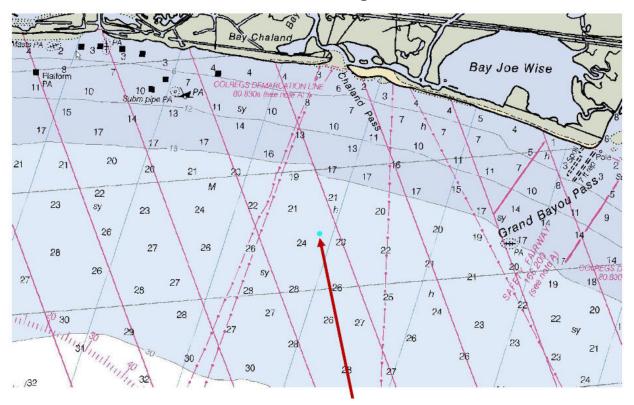


Figure 1.3.1

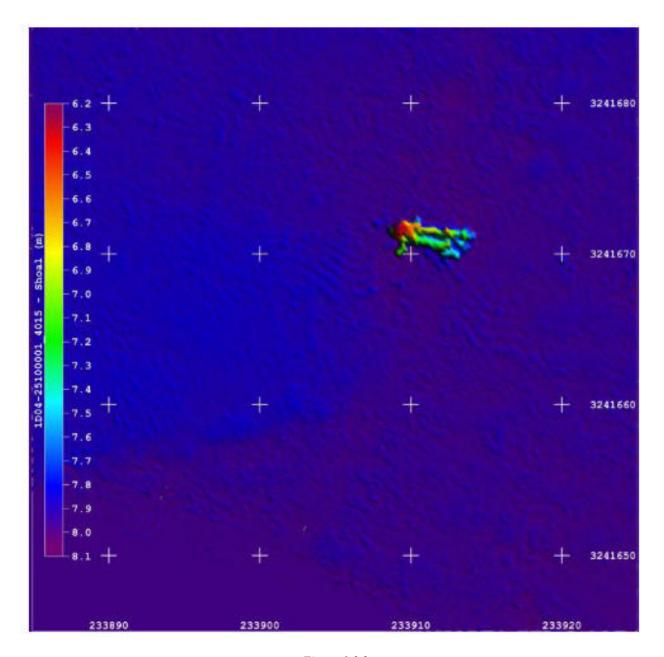


Figure 1.3.2

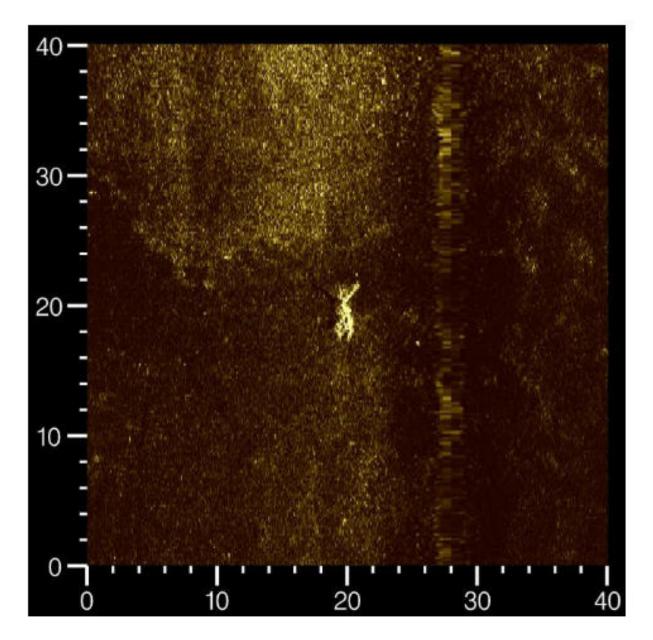


Figure 1.3.3

1.4) DToN#3.1 21-ft Obstruction

DANGER TO NAVIGATION

Survey Summary

Survey Position: 29° 16′ 33.3″ N, 089° 47′ 47.4″ W

Least Depth: 6.46 m = 21.20 ft = 3.533 fm = 3 fm = 3.20 ft

TPU ($\pm 1.96\sigma$): THU (TPEh) [None]; TVU (TPEv) [None]

Timestamp: 2008-295.00:00:00.000 (10/21/2008)

GP Dataset: H11807 DToN#2-3.xls

GP No.: 4

Charts Affected: 11358 1, 11364 1, 11366 1, 1116A 1, 11340 1, 11006 1, 411 1

Remarks:

A significant obstruction was found at this location. The object had an estimated height of 3.5ft, a length of 8.0ft, a width of 4.1ft, and an estimated clearance depth of 21.2ft, based on sidescan sonar data. The multibeam sonar data show the obstruction to be 4.8ft high with a clearance depth of 21.2ft. Chart 11358 does not indicate an obstruction at this location. (FPI Contact Reference 2D02-30600001-M)

The sidescan sonar image (speed corrected waterfall display) shows a 130X130ft area approximately centered at the location. The obstruction is the bright object with a shadow to the right (red arrow points to object). The multibeam bathymetry image shows the bathymetry over a 130X130ft area with the depth scale (left side of image) in meters. An excerpt from Chart 11358 with a red arrow indicating the location of the obstruction (small cyan circle).

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11807_DToN#2-3.xls	4	0.00	0.000	Primary

Hydrographer Recommendations

Chart 21-ft Obstruction.

Cartographically-Rounded Depth (Affected Charts):

```
21ft (11358_1, 11364_1)
3 ½fm (1116A_1, 11340_1, 11006_1, 411_1)
3fm 3ft (11366_1)
```

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: QUASOU - 6:least depth known

SORDAT - 20081021

SORIND - US, US, survy, H11807

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

VALSOU - 6.46175979 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

Do not concur. Feature is not navigationally significant. Chart survey soundings at position. Delete charted obsturction.

Feature Images

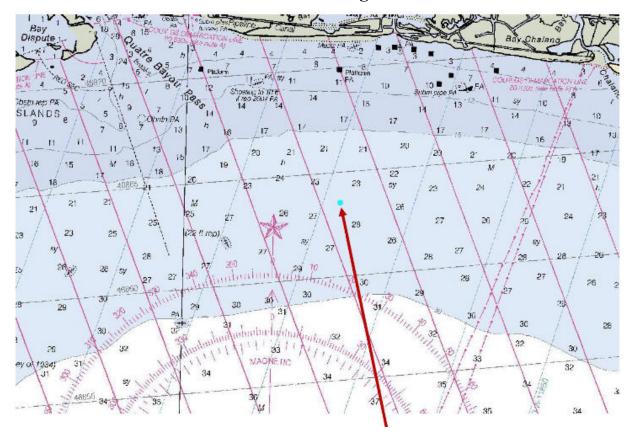


Figure 1.4.1

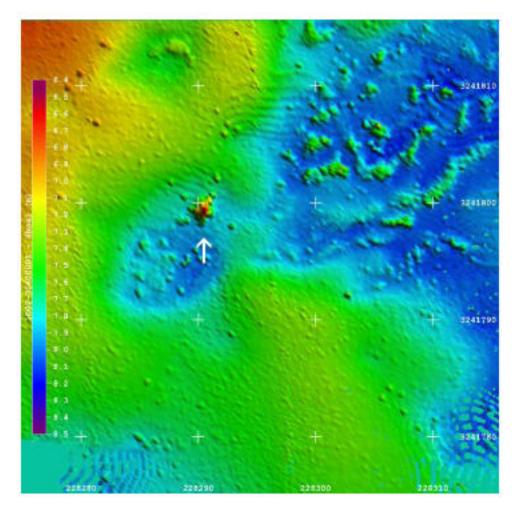


Figure 1.4.2

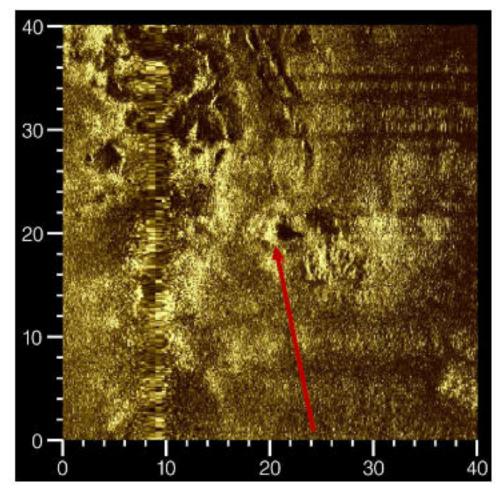


Figure 1.4.3

1.5) DToN#3.2 11-ft Obstruction

DANGER TO NAVIGATION

Survey Summary

Survey Position: 29° 18′ 14.7″ N, 089° 46′ 05.3″ W

Least Depth: 3.51 m = 1.50 ft = 1.917 fm = 1 fm 5.50 ft

TPU ($\pm 1.96\sigma$): THU (TPEh) [None]; TVU (TPEv) [None]

Timestamp: 2008-311.00:00:00.000 (11/06/2008)

GP Dataset: H11807 DToN#2-3.xls

GP No.: 5

Charts Affected: 11358 1, 11364 1, 11366 1, 1116A 1, 11340 1, 11006 1, 411 1

Remarks:

A significant obstruction was found at this location. The object appears to be debris. The object had an estimated height of 2.7ft, a length of 8.9ft, a width of 4.3ft, and an estimated clearance depth of 11.2ft, based on sidescan sonar data. The multibeam sonar data show the obstruction to be 3.9ft high with a clearance depth of 11.5ft. Chart 11358 does not indicate an obstruction at this location. (FPI Contact Reference 1D02-SH0080002-M)

The sidescan sonar image (speed corrected waterfall display) shows a 130X130ft area approximately centered at the location. The obstruction is the bright object with a shadow to the left (red arrow). The multibeam bathymetry image shows the bathymetry over a 130X130ft area with the depth scale (left side of image) in meters. An excerpt from Chart 11358 is shown below, with a red arrow indicating the location of the obstruction (small cyan circle)

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11807_DToN#2-3.xls	5	0.00	0.000	Primary

Hydrographer Recommendations

Chart 11-ft Obstruction.

Cartographically-Rounded Depth (Affected Charts):

```
11ft (11358_1, 11364_1)
1 <sup>3</sup>/<sub>4</sub>fm (1116A_1, 11340_1, 11006_1, 411_1)
1fm 5ft (11366_1)
```

H11807 DToN #2-3

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: QUASOU - 6:least depth known

SORDAT - 20090329

SORIND - US, US, graph, H11807

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

VALSOU - 3.505 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

Do not concur. Delete charted 9ft obstruction. Chart survey soundings as appropriate.

Feature Images

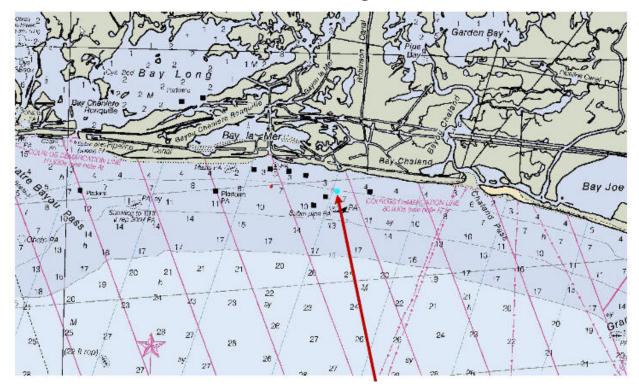


Figure 1.5.1

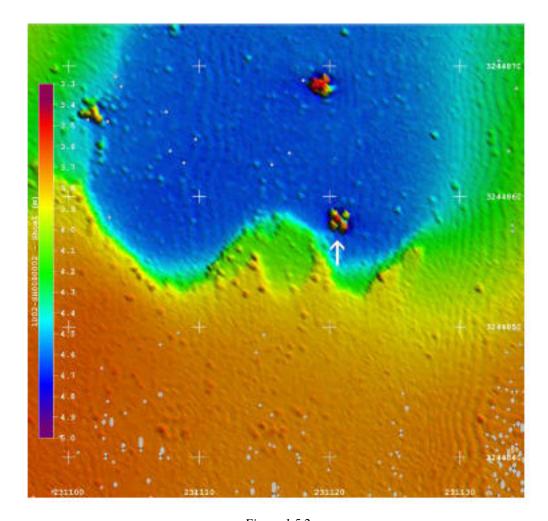


Figure 1.5.2

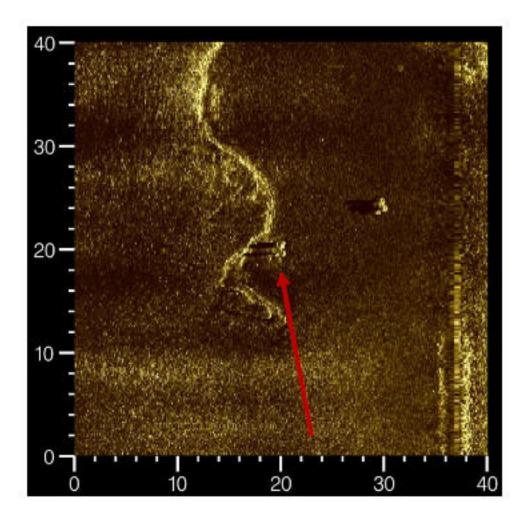


Figure 1.5.3

1.6) DToN#3.3 13-ft Obstruction

DANGER TO NAVIGATION

Survey Summary

Survey Position: 29° 18′ 04.9″ N, 089° 47′ 02.2″ W

Least Depth: 3.99 m (= 13.10 ft = 2.183 fm = 2 fm 1.10 ft)

TPU ($\pm 1.96\sigma$): THU (TPEh) [None]; TVU (TPEv) [None]

Timestamp: 2008-309.00:00:00.000 (11/04/2008)

GP Dataset: H11807 DToN#2-3.xls

GP No.: 6

Charts Affected: 11358 1, 11364 1, 11366 1, 1116A 1, 11340 1, 11006 1, 411 1

Remarks:

A significant obstruction was found at this location. The object appears to be debris. The object had an estimated height of 2.9ft, a length of 6.4ft, a width of 5.6ft, and an estimated clearance depth of 13.7ft, based on sidescan sonar data. The multibeam sonar data show the obstruction to be 3.4ft high with a clearance depth of 13.1ft. Chart 11358 does not indicate an obstruction at this location. (FPI Contact Reference 1D02-01600002-M)

The sidescan sonar image (speed corrected waterfall display) shows a 130X130ft area approximately centered at the location. The obstruction is the bright object with a shadow to the right. The multibeam bathymetry image shows the bathymetry over a 130X130ft area with the depth scale (left side of image) in meters. An excerpt from Chart 11358 is shown below, with a red arrow indicating the location of the obstruction (small cyan circle).

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11807_DToN#2-3.xls	6	0.00	000.0	Primary

Hydrographer Recommendations

Chart 13-ft Obstruction.

Cartographically-Rounded Depth (Affected Charts):

13ft (11358_1, 11364_1) 2fm (1116A_1, 11340_1, 11006_1, 411_1) 2fm 1ft (11366_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: QUASOU - 6:least depth known

SORDAT - 20090329

SORIND - US, US, graph, H11807

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

VALSOU - 3.992 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

Do not concur. Delete charted obstruction. Chart sounding at survey position.

Feature Images

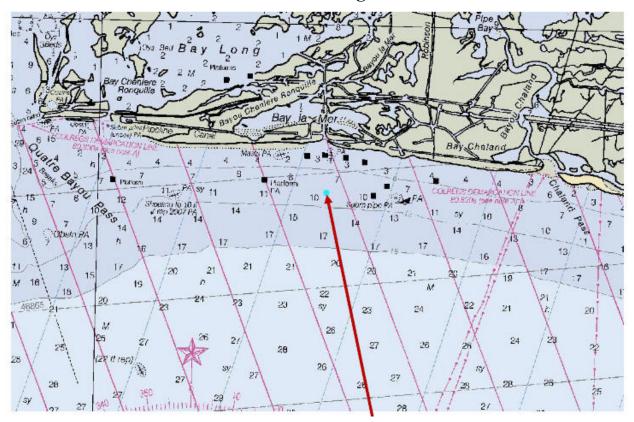


Figure 1.6.1

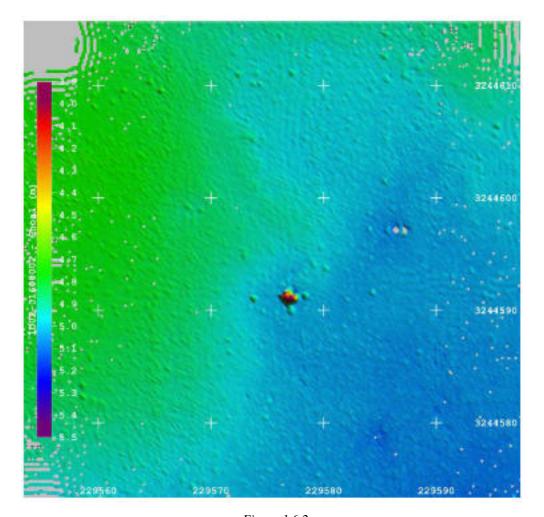


Figure 1.6.2

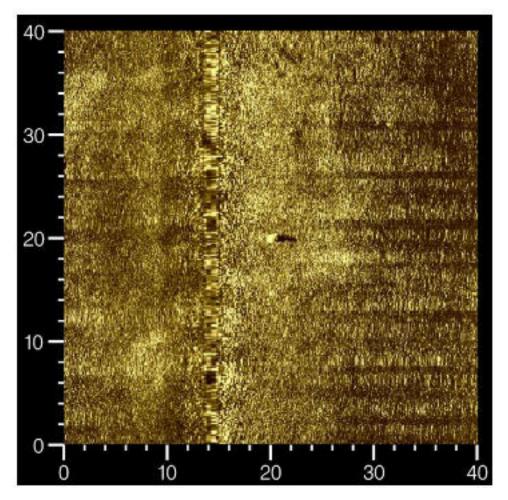


Figure 1.6.3

Hydrographic Survey Registry Number: H11807

Survey Title: State: Louisiana

General Locality: Gulf of Mexico

Sub-locality: Vicinity of Grand Bayou Pass

Project Number: OR-K977-FU-08

Survey Dates: August – October, 2008

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

Positions are based on the NAD83 horizontal datum.

CHARTS AFFECTED:

Chart	Scale	Edition	Edition Date
11358	1:80,000	54 th	February 07
			(NM:02/24/07)
			(LMN:02/20/07)

DANGER TO NAVIGATION:

Feature	Latitude	Longitude
Pipeline	29-11-15N	089-43-34W

COMMENTS:

110 ft of a charted pipeline was found to be exposed, 1.5ft proud of the seabed, with a least depth of 45.4ft. This feature coincides with a pipeline crossing. Chart 11358 does not indicate an exposed pipeline at this location.

The image (right) shows a 410X410ft area centered at the location (UTM projection; aligned grid north). The pipeline is the dark linear feature crossing diagonally. The image is taken from a backscatter mosaic from a multibeam survey of this area.

Concur with clarification. Chart obsturction on pipeline with a least depth of 42.385ft at survey position 29-11-14.9612N, 89-43-34.6739W.





APPENDIX II – SURVEY FEATURE REPORT

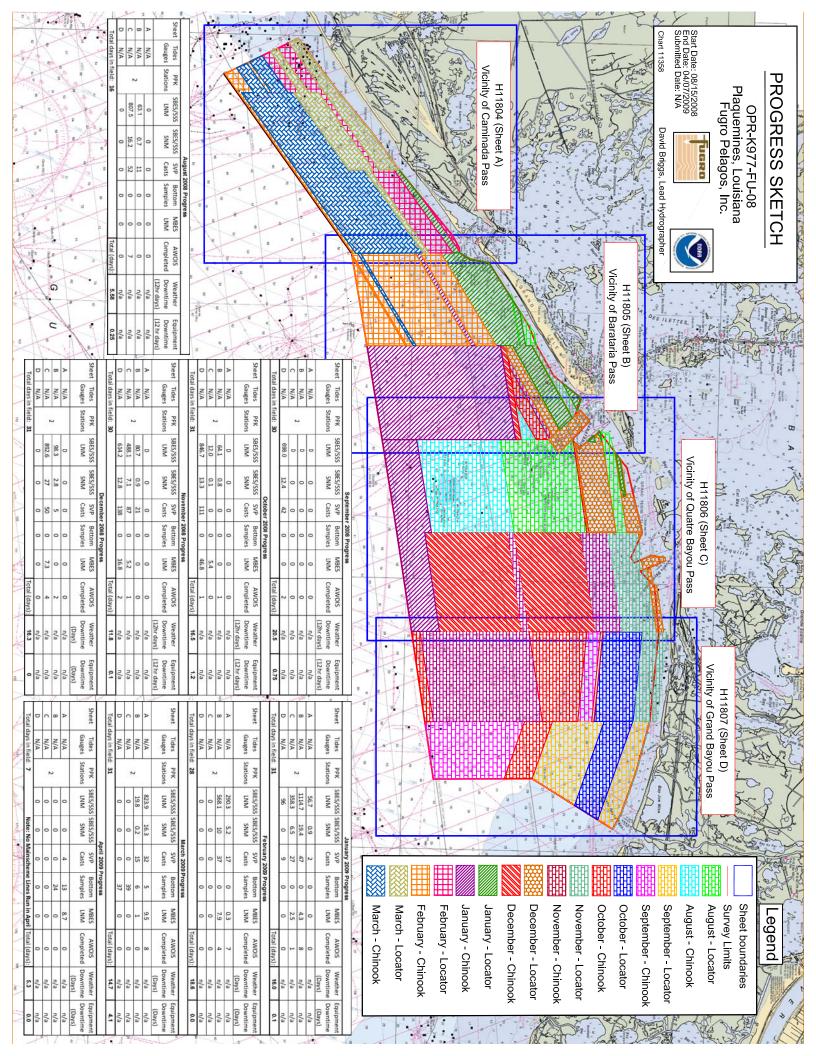
Five AWOIS items were assigned to H11807. Results and methods of investigation are described in the "Results and Recommendations" section of the DR.



APPENDIX III - FINAL PROGRESS SKETCH AND SURVEY OUTLINE

The Final Progress Sketch and Survey Outline is included in the Appendix III (Final Progress Sketch) directory.

2009-04-Progress-sketch-Final.pdf H11807_Final_Survey_Bounds.zip





APPENDIX IV - TIDES AND WATER LEVELS

The Times of Hydrography is included in the Appendix IV (Tides) directory.

H11807 Times of Hydrography.pdf

The following files contain the verified tidal data and zones used. They are included with the CARIS data.

K977KR2008&K977FU2008_Rev_Verified.zdf 8762075_Verified.tid 8761724 Verified.tid



Appendix IV - Tides and Water Levels

Abstract of Times of Hydrography for Smooth Tides

Project Number: OPR-K977-FU-08 Registry Number: H11807

Contractor Name: Fugro Pelagos Inc. Date: July 03, 2009

Sheet Letter: C

Inclusive Dates: September 19, 2008 and ended on March 29, 2009

Fieldwork is complete and verified tides were applied for the production of the final soundings,

BASE surface, and S-57 feature file.

Abstract of Times of Hydrography for R/V Chinook (SBES)

YEAR	DAY	START TIME	END TIME	COMMENTS
		(UTC)	(UTC)	
2008	263	17:04:32	22:13:13	
2008	264	12:45:03	19:10:21	
2008	265	12:35:40	20:04:14	
2008	266	12:45:26	21:07:23	
2008	267	13:45:33	16:35:32	
2008	268	12:50:12	14:18:36	
2008	269	12:31:06	21:23:45	
2008	270	12:26:23	21:46:01	
2008	271	12:28:50	21:36:29	
2008	272	12:41:46	22:06:38	
2008	273	12:34:51	22:00:55	
2008	274	12:27:29	22:16:34	
2008	275	12:45:51	21:32:10	
2008	277	12:33:39	22:06:34	
2008	278	12:11:02	21:40:39	
2008	281	16:57:38	18:43:40	
2008	284	12:24:38	22:12:27	
2008	285	12:19:50	18:22:43	
2008	291	12:39:58	20:31:31	
2008	294	12:40:13	21:17:32	
2008	295	12:52:28	17:57:13	
2008	296	12:51:32	15:36:06	
2008	299	12:32:14	21:01:51	
2008	300	12:05:12	22:16:42	
2008	303	12:09:45	21:55:07	
2008	306	12:56:01	15:11:07	
2008	307	13:21:12	23:15:53	

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2008	308	12:57:17	16:07:35	1
2008	309			
		12:48:39	21:48:20	
2008	310	12:43:51	21:54:14	
2008	311	13:02:37	21:58:59	
2008	312	12:58:50	15:54:14	
2008	314	12:59:11	21:34:51	
2008	319	14:00:22	20:38:25	
2008	322	13:38:11	22:10:09	
2008	324	14:03:32	21:48:58	
2008	325	13:27:44	21:37:40	
2008	331	13:13:26	22:16:26	
2008	332	15:10:05	21:17:43	
2008	333	13:17:34	15:05:50	
2009	8	14:36:04	20:35:00	
2009	9	20:05:50	22:50:59	
2009	25	1:09:48	6:41:20	
2009	31	23:54:24	9:42:49	
2009	32	6:07:27	10:41:47	
2009	33	0:02:16	2:07:21	
2009	45	0:23:04	10:02:16	
2009	88	19:00:37	21:30:55	

Abstract of Times of Hydrography for R/V Locator (SBES)

YEAR	DAY	START TIME	END TIME	COMMENTS
		(UTC)	(UTC)	
2008	263	20:18:07	21:27:39	
2008	265	12:35:00	19:37:12	
2008	266	13:00:46	20:31:07	
2008	267	14:42:48	17:11:10	
2008	268	12:34:12	13:59:49	
2008	269	12:21:25	21:08:52	
2008	270	12:32:58	20:59:34	
2008	271	12:39:13	18:59:28	
2008	272	12:18:42	21:52:30	
2008	273	12:24:20	22:29:33	

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2008	274	13:12:07	22:01:44	
2008	275	12:40:49	22:09:24	
2008	277	14:21:58	21:40:36	
2008	278	12:27:34	21:41:55	
2008	284	12:33:59	21:24:37	
2008	285	12:32:21	18:13:35	
2008	294	18:32:41	21:19:22	
2008	295	13:06:54	18:02:48	
2008	299	12:30:20	22:13:19	
2008	300	12:11:20	22:04:07	
2008	303	12:30:17	21:28:41	
2008	304	12:26:36	21:58:58	
2008	306	15:52:53	19:36:26	
2008	307	13:39:13	22:04:51	
2008	308	14:29:06	21:18:19	
2008	309	13:39:48	21:39:23	
2008	310	16:09:12	21:39:33	
2008	311	13:09:00	22:09:41	
2008	312	13:06:09	16:17:35	
2008	313	13:37:54	21:19:31	
2009	24	13:10:23	15:25:37	
2009	25	20:28:33	21:59:12	
2009	31	12:50:21	19:17:03	
2009	34	16:23:39	21:07:56	

Abstract of Times of Hydrography for R/V Locator (MBES)

YEAR	DAY	START TIME (UTC)	END TIME (UTC)	COMMENTS
2008	281	15:02:48	18:47:00	
2008	283	12:55:08	21:04:28	
2008	291	13:49:30	20:53:13	
2008	306	13:43:14	14:34:38	
2008	310	14:10:00	14:35:50	
2008	325	14:03:32	21:11:25	
2008	329	19:50:55	20:35:02	
2008	337	13:14:50	13:47:33	

Project: OPR-K977-FU-08

Sheet Letter 'D' Registry No.: H11807



APPENDIX V – SUPPLEMENTAL SURVEY RECORDS AND CORRESPONDENCE

The following email records are included since they are communications with NOAA that affected the survey. They are located in the Appendix V (Supplementary Survey Records) directory.

H11807 Revisions.txt

Field unit DtoN selection in regard to Marine Chart Division application 022609.txt

Fourthon Zoning 110608.txt

Fwd Fwd Re Fwd Re grand isle tide station down 012909.txt

Fwd Fwd Re Grand Isle 010209.txt

Fwd Grand Isle Tide Station 111208.txt

Fwd Re 8761724 Grand Isle and 8762075 Port Fourchon 111808.txt

Grand Isle Repaired 091008.txt

Grand Isle Update 091008.txt

Re 100% Coverage Gaps 033109.txt

Re DtoN Question 022309.txt

Re FW Cable Area 021809.txt

Re Fwd Fwd Re Fwd Re grand isle tide station down 020909.txt

Re Fwd Tide station Grand Isle.txt

Re Grand Isle Tide Station 111208.txt

Re MBES Verifications 040609.txt

Re Survey Boundaries and DTON.txt

Re Tide station Grand Isle 110608.txt

Re data questions 051409

Revision to a DTON.txt

A table detailing the position and results of each bottom sample is also included in the Appendix V (Supplementary Survey Records) directory. Photos of each bottom sample are included here as well.

H11807_Bottom_Sample_Summary.xls

From: Larry Neeson [Larry.Neeson@noaa.gov] Sent: Wednesday, September 10, 2008 8:32 AM

To: Richard Bourgerie

Cc: Thomas Landon; Bruce Servary; _NOS CO-OPS Hydro; Brad Wynn; Mike

Ohargan; Chris McGrath

Subject: Grand Isle Update

Rich:

I just received a call from Lee Chapin, MDI reporting that his team is being booted of the Coast Guard Station due to a mandatory evacuation of Grand Isle due to flooding over the Island. They are attempting to restore the primary DCP and Aquatrak before they leave. They were on site to perform a major refurbishment of the station. The station went down because it lost the solar panels during Hurricane Gustav. I'll try and keep everyone posted on the situation.

Larry

From: Larry Neeson [Larry.Neeson@noaa.gov]
Sent: Wednesday, September 10, 2008 11:34 AM

To: Corms@noaa.gov; _NOS CO-OPS Hydro; _NOS CO-OPS OET Team

Cc: Richard Bourgerie; Tim Osborn Subject: Grand Isle Repaired

Grand Isle was repaired. The DCP was powered up after new solar panels and batteries were installed. No other components were changed. The team was forced to evacuate by the USCG. Please have someone look at the data.

Larry

From: Manoj Samant [Manoj.Samant@noaa.gov] Sent: Wednesday, November 05, 2008 11:02 AM

To: David.Scharff; Crescent Moegling

Subject: Re: [Fwd: Tide station Grand Isle?]

Hi Crescent:

CO-OPS is investigating the problem at Grand Isle, I have informed CO-OPS FOD regarding this sensor, and will let you as soon as I hear something. Thanks.

Manoj	
Manoj Samant Wrote	

Hi Larry/Brad:

I received a call from OCS and this e-mail from OCS regarding Grand Isle. We do not have data after November 4th at 08:54? Is there a problem? Congratulations for rebuilding the station, Let me know.

Station # S	Sn F	PC	Begin Date	End Date	e In C	COCT	Γ Data Type
8761724 1	A 1	W1	20080930	23:54 2008	1001 13:	54 6	01000 6-Minute
8761724 1	A 1	W1	20081001	14:24 2008	1029 16:	54 6	01000 6-Minute
8761724 1	A 1	W1	20081029	17:06 2008	1029 17:	54 6	01000 6-Minute
8761724 1	A 1	W1	20081029	20:54 2008	1029 21:	24 6	01000 6-Minute
8761724 1	A 1	W1	20081029	21:42 2008	1030 20:	42 6	01000 6-Minute
8761724 1	A 1	W1	20081030	21:00 2008	1030 22:	00 6	01000 6-Minute
8761724 1	A 1	W1	20081030	22:18 2008	1031 13:	24 6	01000 6-Minute
8761724 1	A 1	W1	20081031	14:36 2008	1031 18:	54 6	01000 6-Minute
8761724 1	A 1	W1	20081031	19:06 2008	1104 08:	54 6	01000 6-Minute

The verified 6-minute data is available till October 31st.

Stnid D# Rq Ap	U	End Time	SID PC	INT	PID	VID AID
8761724 1	20081001 00	0:00 20081005	23:54 A1	W1	6	206 211
NULL	0 0		22.54 4 1	XX 71	_	206 211
8761724 1 NULL	0 0	0:00 20081012	23:34 A1	W I	0	200 211
8761724 1	20081013 00	0:00 20081019	23:54 A1	W1	6	206 211
NULL 8761724 1	0 0	0:00 20081026	22.54 1	W 71	6	205 206
NULL	0 0	7.00 20061020	23.34 A1	VV 1	U	293 200
8761724 1	20081027 00	0:00 20081031	23:54 A1	W1	6	372 206
NULL	0 0					

Thanks.

Manoj

D 1101 00

David.Scharff wrote:

_

> Manoj,

> I'm not sure if this was on my last hydro hot list request. It's for

> project OPR-J977-KR-08 GOM Debrise Mapping. Let me know if you have

> any questions.

```
> Thanks,
> Dave
>
> ----- Original Message -----
> Subject:
            Tide station Grand Isle?
> Date: Wed, 05 Nov 2008 05:54:51 -0800
> From: Roland Poeckert < RPoeckert@fugro.com>
       David.Scharff@noaa.gov < David.Scharff@noaa.gov >
> To:
        Crescent.Moegling@noaa.gov < Crescent.Moegling@noaa.gov >, James
> CC:
> Hailstones < JHailstones @fugro.com>, David Briggs < DBriggs @fugro.com>
>
>
>
> David,
> We have not been able to get tide data from the Grand Isle station
> (Station ID: 8761724) for the past 24 hours. This station is on the
> hot list.
> Regards,
> Roland Poeckert
> Fugro Pelagos, Inc.
From: Crescent Moegling [Crescent.Moegling@noaa.gov]
Sent: Thursday, November 06, 2008 10:20 AM
To:
       David Briggs
Cc:
       'David.Scharff'; James Hailstones; Roland Poeckert
Subject:
              Re: Tide station Grand Isle?
I spoke with CO-OPS and they will be sending revised zoning to utilize
Fourchon while Grand Isle is offline. I will pass along the zones once rec'd.
Crescent
David Briggs wrote:
Dave.
Any updates from CO-OPS today on the status of the Grand Isle Tide Station?
Thanks,
David
```

----Original Message-----

From: David.Scharff [mailto:David.Scharff@noaa.gov]

Sent: Wednesday, November 05, 2008 9:31 AM

To: Roland Poeckert

Cc: Crescent.Moegling@noaa.gov; James Hailstones; David Briggs

Subject: Re: Tide station Grand Isle?

Roland,

I'll inform CO-OPS and get back to you.

Dave

Roland Poeckert wrote:

David,

We have not been able to get tide data from the Grand Isle station (Station ID: 8761724) for the past 24 hours. This station is on the hot list.

Regards,

Roland Poeckert Fugro Pelagos, Inc.

--

Crescent Moegling NOAA Hydrographic Surveys Division Branch Chief - Data Acquisition Control 301.713.2700 x111

From: Crescent Moegling [Crescent.Moegling@noaa.gov]

Sent: Thursday, November 06, 2008 11:17 AM

To: David Briggs; Roland Poeckert; James Hailstones

Subject: Fourthon Zoning

Attachments: Using Port Fourchon.zip

All,

Please find attached zoning to use in conjunction with Port Fourchon gauge. If I hear back from CO-OPS that Grand Isle is still logging you can disregard these zones but please use Fourchon until I hear otherwise. Sorry for the inconvenience.

Regards,

--

Crescent Moegling NOAA Hydrographic Surveys Division Branch Chief - Data Acquisition Control 301.713.2700 x111

From: David.Scharff [David.Scharff@noaa.gov] Sent: Wednesday, November 12, 2008 6:37 AM

To: Manoj Samant Cc: David Briggs

Subject: [Fwd: Grand Isle Tide Station]

Attachments: David_Scharff.vcf

Manoj,

The gage started broadcasting on Saturday, can Fugro start using the broadcast data? Also, as David mentioned is the missing data going to be uploaded to the website?

Thanks, Dave

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

Subject: Grand Isle Tide Station Date: Sun, 09 Nov 2008 09:22:29 -0500

From: David Briggs <dbriggs@fugro.com>
To: 'Dave Scharff' <David.Scharff@noaa.gov>

CC: 'Crescent Moegling' < Crescent. Moegling@noaa.gov>, Roland Poeckert

<RPoeckert@fugro.com>, James Hailstones <JHailstones@fugro.com>

Dave,

The Grand Isle Tide Station began broadcasting data again on Saturday. Is this data acceptable to use? Also, Crescent mentioned a comment from CO-

OPS that the data was still logging while it was not broadcasting over the internet. Is the missing data going to be uploaded to the website or are we going to be provided with the verified tide data in some other manner?
Thanks,
David
David Briggs
Hydrographer
Fugro Pelagos, Inc
3738 Ruffin Rd
San Diego, CA 92123-1812
Phone: 858-292-8922
FAX: 858-292-5308
dbriggs@fugro.com <mailto:esaade@fugro.com></mailto:esaade@fugro.com>
www.fugro-pelagos.com/>
From: David.Scharff [David.Scharff@noaa.gov] Sent: Wednesday, November 12, 2008 11:26 AM To: David Briggs Subject: Re: Grand Isle Tide Station Attachments: David_Scharff.vcf
David,
Just received an update from CO-OPS. They are still looking into this and will get back to us ASAP.
Dave

David Briggs wrote:

```
> Dave,
>
>
> The Grand Isle Tide Station began broadcasting data again on Saturday.
> Is this data acceptable to use? Also, Crescent mentioned a comment
> from CO-OPS that the data was still logging while it was not
> broadcasting over the internet. Is the missing data going to be
> uploaded to the website or are we going to be provided with the
> verified tide data in some other manner?
>
>
> Thanks,
>
> David
>
>
> David Briggs
> Hydrographer
> Fugro Pelagos, Inc
> 3738 Ruffin Rd
> San Diego, CA 92123-1812
> Phone: 858-292-8922
> FAX: 858-292-5308
> dbriggs@fugro.com <mailto:esaade@fugro.com>
> www.fugro-pelagos.com <a href="http://www.fugro-pelagos.com/">http://www.fugro-pelagos.com/</a>
>
>
>
>
From: David.Scharff [David.Scharff@noaa.gov]
Sent: Tuesday, November 18, 2008 7:14 AM
```

To: David Briggs

Subject: [Fwd: Re: 8761724 Grand Isle and 8762075 Port Fourchon] Attachments: 87617241.111608.png; 87620751.111608.png; David_Scharff.vcf

David,

Please see the latest on Port Fourchon and Grand Isles.

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

Subject: Re: 8761724 Grand Isle and 8762075 Port Fourchon

Date: Mon, 17 Nov 2008 12:07:41 -0500

From: Manoj Samant < Manoj Samant@noaa.gov>

To: Crescent Moegling < Crescent. Moegling@noaa.gov >, Dave Scharff

<David.Scharff@noaa.gov>

CC: _NOS CO-OPS Hydro <nos.coops.hydro@noaa.gov>, Peter Stone

<Peter.Stone@noaa.gov>, Tom Mero <Tom.Mero@noaa.gov>

References: <491DDBB7.2060302@noaa.gov>

Hi Crescent:

At Grand Isle, the acoustic well was raised and hence the datum offset changed as you noticed on the CO-OPS' preliminary page. But the verified 6-minute data will be on the same station datum and the verified data for Grand Isle is available till 11/9/08 as of now, and will be available till 11/16/08 by the end of today or tomorrow. For Port Fourchon the verified 6-minute data is available on CO-OPS web page till 11/16/2008. Please advise your contractor to download only the verified data and not the preliminary data.

Here is the status of verified data for 8762075 Port Fourchon as of noon on Monday 11/17/2008. W1 is the 6-minute data, W2 is the hourly height data, and W3 is the high/low data in the following two query results.

Remember, the W2 and W3 verified data is made available on a monthly basis and the W1 verified data is only made available on a weekly basis for priority stations as listed on the hydro hot list.

Stnid D#	Begin Time	End Time	SID PC	INT	PID	VID AII
Rq Ap)					
8762075 1	20081001 00	0:00 20081020	05:24 A1	W1	6	206 211
NULL	0 0					
8762075 1	20081020 03	5:30 20081020) 14:24 WL	W1	6	206 211
NULL	0 0					

8762075 1	20081020 14:30 20081026 23:54 A1 W1 6 206 211	
NULL	0 0	
8762075 1	20081027 00:00 20081102 23:54 A1 W1 6 206 295	
NULL	0 0	
8762075 1	20081103 00:00 20081109 23:54 A1 W1 6 206 295	
NULL	0 0	
8762075 1	20081110 00:00 20081116 23:54 A1 W1 6 206 211	
NULL	0 0	
8762075 1	20081001 00:00 20081020 05:00 WL W2 60 206 295	
NULL	0 0	
8762075 1	20081020 06:00 20081020 14:00 WL W2 60 206 295	
NULL	0 0	
8762075 1	20081020 15:00 20081031 23:00 WL W2 60 206 295	
NULL	0 0	
8762075 1	20081001 00:00 20081020 05:24 WL W3 6 206 295	
NULL	0 0	
8762075 1	20081020 05:30 20081020 14:24 WL W3 6 206 295	
NULL	0 0	
8762075 1	20081020 14:30 20081031 23:54 WL W3 6 206 295	
NULL	0 0	

Here is the status of verified data for 8761724 Grand Isle as of noon on Monday 11/17/2008.

Stnid D# Rq Ap	· ·	End Time	SID PC	INT	PID	VID AID
8761724 1	20081001 00	0:00 20081005	23:54 A1	W1	6	206 211
NULL	0 0					
8761724 1	20081006 00	0:00 20081012	23:54 A1	W1	6	206 211
NULL	0 0					
8761724 1	20081013 00	0:00 20081019	23:54 A1	W1	6	206 211
NULL	0 0					
8761724 1	20081020 00	0:00 20081026	23:54 A1	W1	6	295 206
NULL	0 0					
8761724 1	20081027 00	0:00 20081031	23:54 A1	W1	6	372 206
NULL	0 0					
8761724 1	20081101 00	0:00 20081104	08:54 A1	W1	6	372 295
NULL	0 0					
8761724 1	20081108 18	3:42 20081109	23:54 A1	W1	6	372 295
NULL	0 0					
8761724 1	20081001 00	0:00 20081005	23:00 A1	W2	60	372 206
NULL	0 0					
8761724 1	20081006 00	0:00 20081012	23:00 A1	W2	60	372 206

NULL	0 0					
8761724 1	20081013	00:00 20081019 23:00 A1	W2	60	372	206
NULL	0 0					
8761724 1	20081020	00:00 20081026 23:00 A1	W2	60	372	206
NULL	0 0					
8761724 1	20081027	00:00 20081031 23:00 A1	W2	60	372	206
NULL	0 0					
8761724 1	20081001	00:00 20081031 23:54 WL	W3	6	372	206
NULL	0 0					

I have also attached two plots that show you the data comparison with predicted after the data is placed on the chart datum.

Thanks. Manoj Manoj,

Fugro was hoping to get the status on the Port Fourchon and Grand Isle stations. Can you give me a status update when you get a chance.

Thanks, Dave

Crescent Moegling wrote:

> Manoj,

- > In the past 36-40 hours Fugro has noted a 1m jump between predicted
- > and observed water levels on Grand Isle station. Are you aware of any
- > issues with the gauge? Also, have you heard whether or not data was
- > logging during the broadcast outage?

- > With all the problems this gauge has experienced Fugro has requested
- > Fourchon be placed on the Hydro Hotlist until these issues are
- > resolved as that is their primary gauge for now.

> Thanks!

Janet and Bob,

Please apply the following corrector to 8761724 Grand Isle, LA from *11/12/2008 @ 14:18 - 11/14/2008 @ 19:06

New Datum Offset (6.486) - Old Datum Offset (5.239) = Corrector* (+1.247m) *

Thanks, Seth

T' N T 11

Jim Navarro wrote: To all,

After elevating the well 4 ft to elevate the blanking zone of the Aquatrak Sounding tube and running the corresponding levels, a new C2 was inputted in the DCP as 6.486 m on 11/13/08 @ 17:28 GMT.

Please find in this attchment the necessary documents and if you have any questions, do not hesitate to contact me.

Regards,

Jim A. Navarro Meteorology - Consultant Air-Sea Monitoring Systems ph: (850) 559-4654 USA

email: jim@air-seasystems.com www.air-seasystems.com/datamet

From: David.Scharff [David.Scharff@noaa.gov]

Sent: Friday, January 02, 2009 7:48 AM

To: David Briggs

Subject: [Fwd: [Fwd: Re: Grand Isle]]

Attachments: David_Scharff.vcf

David,

Here is the response from CO-OPS. Remind me again, do you have zoning for Port Fourchon?

Dave

----- Original Message -----Subject: [Fwd: Re: Grand Isle]

Date: Fri, 02 Jan 2009 09:18:55 -0500

From: Carolyn Lindley < Carolyn.Lindley@noaa.gov>

Reply-To: Carolyn.Lindley@noaa.gov Organization: National Ocean Service

To: David Scharff < David. Scharff@noaa.gov>

CC: NOS.COOPS.HPT@noaa.gov

Hi Dave,

The below email describes the current status of Grand Isle data between 11/4 and 11/9.

If the contractor has collected bathymetry data during these times we will likely be able to use zoning based on Port Fourchon to cover gaps (based on the location of bathymetry collection). If the contractor does not currently have zoning based off Port Fourchon in these areas please let us know and we can send a revised set of zoning with correctors for both Grand Isle and Port Fourchon.

I will speak with Craig regarding this on Monday. Jerry is on leave through 1/7/2009.

Thanks, Carolyn

----- Original Message ------- Subject: Re: Grand Isle

Date: Tue, 25 Nov 2008 11:05:05 -0500

From: Craig Martin < Craig. Martin@noaa.gov>

Reply-To: Craig.Martin@noaa.gov Organization: National Ocean Service

To: Crescent Moegling < Crescent. Moegling@noaa.gov>

CC: Manoj Samant < Manoj.Samant@noaa.gov>, CO-OPS Hydro Planning Team

<NOS.COOPS.HPT@noaa.gov>, Dave Scharff <David.Scharff@noaa.gov>

References: <491DDBB7.2060302@noaa.gov>

Crescent,

I spoke with our Data Processing Team about recent outtages at Grand Isle, and there will be data gaps that CO-OPS is unable to fill confidently from:

Nov. 4th 15:30 to Nov. 8th 15:12, and Nov 15th 23:24 to Nov. 21st 22:48

If the contractor has collected bathymetry data during these times we will likely be able to use zoning based on Port Fourchon to cover gaps (based on the location of bathymetry collection). If the contractor does not currently have zoning based off Port Fourchon in these areas please let us know and we can send a revised set of zoning with correctors for both Grand Isle and Port

Fourchon. Thanks, Craig Crescent Moegling wrote: > Manoj, > > In the past 36-40 hours Fugro has noted a 1m jump between predicted > and observed water levels on Grand Isle station. Are you aware of any > issues with the gauge? Also, have you heard whether or not data was > logging during the broadcast outage? > With all the problems this gauge has experienced Fugro has requested > Fourthon be placed on the Hydro Hotlist until these issues are > resolved as that is their primary gauge for now. > > Thanks! From: David.Scharff [David.Scharff@noaa.gov] Sent: Wednesday, February 18, 2009 12:11 PM To: **David Briggs** Re: FW: Cable Area Subject: Attachments: David Scharff.vcf David, Agreed, I don't believe it is necessary to report this one to FEMA. Besides there's so much symbology on the chart already where would we put cables. Thanks for the update. Dave David Briggs wrote: > Dave, > > > We have found a network of cables which are partially exposed in an > area of charted platforms. The cables appear to run between the > platforms and wellheads in the area, but are not listed on the charts. > All of the cables found so far are either lying on the bottom or have > very little height, less than 20cm, based on the side scan images.

> Because of their lack of relief from the bottom, we are not planning

```
> to submit them in the weekly reports to FEMA, but will discuss them in
> the final Descriptive Report.
>
>
> Please let me know if there is a different course of action you would
> like us to take. I have attached a picture of the Side Scan image as
> well as a screen grab of the charted area.
>
>
>
> Thanks,
>
>
> David Briggs
> FPI
>
>
>
>
>
>
>
From: David.Scharff [David.Scharff@noaa.gov]
Sent: Monday, February 23, 2009 5:16 AM
To:
       David Briggs
       Castle E Parker; Andy Orthmann
Cc:
              Re: DtoN Question
Subject:
Attachments: David_Scharff.vcf
David,
If they are below the surface please report them as DTONs. If they are above
the surface it is not necessary to submit a report.
Dave
David D Briggs wrote:
> Dave,
>
```

```
> We are finding operational oil platforms and wellheads which are not
> listed on the charts. Should these be submitted as a Danger to
> Navigations?
>
>
>
> Thanks,
>
>
> David D. Briggs
> Hydrographer
>
>
> Fugro Pelagos, Inc
> 3738 Ruffin Rd
> San Diego, CA 92123-1812
> Phone: 858-292-8922
> Fax:
        858-292-5308
> dbriggs@fugro.com <mailto:esaade@fugro.com>
> www.fugro-pelagos.com < http://www.fugro-pelagos.com/>
>
>
>
From: Castle.E.Parker [Castle.E.Parker@noaa.gov]
Sent:
      Thursday, February 26, 2009 11:54 AM
       Bryan Chauveau; Sarah Eggleston; Nicholas A Forfinski; Wesley
Kitt; Edward Owens; Matthew Wilson; Anne Dollard; Daniel
Seamount; David Briggs; Evan Robertson; Gary Davis; James
DePasquale; James GUILFORD; Jason Infantino,; Jason Creech; Joe
Burke; Jon Dasler; Paul Donaldson; Scott Croft; Scott Ramsay;
Andy Orthmann; Roland Poeckert
Cc:
       Mark T Lathrop; Kathleen Jamison; Lori Knell; David Scharff; Castle
E Parker
Subject:
             Field unit DtoN selection in regard to Marine Chart Division
application
Attachments: Castle.E.Parker.vcf
```

Good day KR field units and AHB ACOR,

This email is regard to DtoN submissions, specifically with charted pipelines that have become exposed above the sea floor. This issue is specifically applicable in the Gulf of Mexico where pipelines are very prevalent. In the past, I would have processed DtoN submissions which details pipelines that have become exposed above the sea floor (unburied), as they truly represent a Danger to surface navigation bearing in mind the water depth and the vessel's draft for those specific areas. In the past Office of Coast Survey's Marine Chart Division did apply obstructions in these specific cases. Now days, MCD has added a note to all charts that eliminate the necessity of submitting these features as Dangers. This policy reduces the number of Dangers that MCD would be required to process. The caution note indicates that anytime one sees a charted pipeline or cable area, that the mariner should use extreme caution when navigating in those charted area. This disclaimer eliminates the liability issue for NOAA by stating that not all pipelines are buried and may be exposed above the sea floor. This caution note eliminates the necessity to chart an obstruction on top a of charted pipeline or within a cable area.

In summation, if any field unit submits a Danger to Navigation that is located on top of a charted pipeline or within a cable area, AHB will not process nor submit the Danger to MCD for chart application. If the feature in question is not located directly on a pipeline then the DtoN application is warranted. It's all about location, location, location! If any field unit is in doubt, then call (757-441-6413 ext. 108) and we can discuss the specific situation. Please respond if anyone has any questions or issues with this guidance.

Regards,

Gene

From: David.Scharff [David.Scharff@noaa.gov]

Sent: Tuesday, March 31, 2009 5:36 AM

To: David Briggs

Subject: Re: 100% Coverage Gaps

Attachments: David Scharff.vcf

David,

I don't believe we would gain much by infilling these gaps and given their size the second pass demonstrates adequate coverage for this area. Thanks for the information, I think we can consider this sheet completed. Let me know if you have any questions.

Dave

David D Briggs wrote:

> Dave,

>

> I would say that our average depth was somewhere in the 8 to 10 meter range.

```
> Our line spacing ranged from 20 to 50 meters depending on water depth
> and sea state/data quality. Most of our survey area was done using 30
> or 40 meter line spacing.
> Thanks.
> David
> -----Original Message-----
> From: David.Scharff [mailto:David.Scharff@noaa.gov]
> Sent: Monday, March 30, 2009 3:36 PM
> To: David Briggs
> Subject: Re: 100% Coverage Gaps
> David,
> Sorry for the delayed response I don't work on Fridays so Mondays tend
> to get a little backed up.
> Can you tell me what the average water depth is for this area and what
your
> line spacing was?
> Thanks.
> Dave
> David D Briggs wrote:
>> Dave,
>>
>> While reviewing our sidescan coverage we are finding gaps in the 100%
>> coverage mosaics that don't exist at 200%. The gaps are small,
>> usually having been caused by a dropped ping or two or vessel track
>> line deviations and larger gaps have already been covered by
>> additional infills. Areas within these small gaps have been
>> ensonified with 100% coverage. All targets which were found with only
>> 100% coverage were either covered by additional sidescan or fully
>> covered during the multibeam investigations.
>>
>> Would you like us to infill the small gaps or are they okay as is?
>> I have included an example below.
>>
>> Thanks,
>>
>> David
>>
```

```
>> David D. Briggs
>>
>> Hydrographer
>>
>> Fugro Pelagos, Inc
>>
>> 3738 Ruffin Rd
>>
>> San Diego, CA 92123-1812
>>
>> Phone: 858-292-8922
>> Fax: 858-292-5308
>> dbriggs@fugro.com <mailto:esaade@fugro.com>
>> www.fugro-pelagos.com <a href="http://www.fugro-pelagos.com/">http://www.fugro-pelagos.com/>
>> Text Box: Small gaps seen in RedGaps.jpg
>>
>> Figure 1: 100% Coverage
>> Text Box: No Gaps Foundno gaps.jpg
>>
>> Figure 2: 200% Coverage
>>
>>
>
>
>
From: David.Scharff [David.Scharff@noaa.gov]
Sent: Monday, April 06, 2009 11:59 AM
       David Briggs
To:
Cc:
       Andy Orthmann
              Re: MBES Verifications
Subject:
Attachments: David_Scharff.vcf
```

David,

Per our conversation, the duration of the dive operations currently preventing you from acquiring multibeam data over the following cables: "1A01-45700015-M", "1A01-46050005-M", and "1A01-46400012-M" is justification for considering these three items unable to be surveyed and this part of the project completed.

Please provide an explanation for the reason you were not able to provide

multibeam data for these three items in the accompanying Descriptive Report.

```
Regards,
Dave
David D Briggs wrote:
> Dave,
> Can you give me a call today. There are three targets which we are
> having trouble running MB over and I would like to discuss them.
> Thanks,
> David
> David D. Briggs
> Hydrographer
> Fugro Pelagos, Inc
> 3738 Ruffin Rd
> San Diego, CA 92123-1812
> Phone: 858-292-8922
> Fax: 858-292-5308
> dbriggs@fugro.com < mailto:esaade@fugro.com >
> www.fugro-pelagos.com <a href="http://www.fugro-pelagos.com/">http://www.fugro-pelagos.com/</a>
From: David.Scharff [David.Scharff@noaa.gov]
Sent: Monday, February 09, 2009 12:53 PM
       Andy Orthmann
To:
Subject:
              Re: [Fwd: [Fwd: Re: grand isle tide station down]]]
Attachments: David_Scharff.vcf
Andy,
```

Sorry I know this must be frustrating. We received an update from CO-OPS today. They are aware of the problem and currently have one of their field teams working it. I'll let you know when they get the problem resolved.

Dave

```
Andy Orthmann wrote:
> Hey Dave.
> The gauge is still in and out a lot. It has been down for a couple
> days again. Do you know if these guys plan to do anything about it? We
> can get by using Fourchon for observed and downloading the verified
> when available but having the observed tides right away for Grand Isle
> helps us out quite a bit.
>
> Thank you,
> Andy
>
>
> -----Original Message-----
> From: David.Scharff [mailto:David.Scharff@noaa.gov]
> Sent: Thursday, January 29, 2009 2:39 PM
> To: Andy Orthmann
> Subject: [Fwd: Fwd: Re: [Fwd: Re: grand isle tide station down]]]
> Andy,
> Here is the latest from co-ops...
> ----- Original Message ------
> Subject:
              [Fwd: Re: [Fwd: Re: grand isle tide station down]]
> Date:
              Thu, 29 Jan 2009 13:33:04 -0500
              Manoj Samant < Manoj. Samant@noaa.gov>
> From:
> To: David Scharff < David. Scharff@noaa.gov>
> CC: _NOS.CO-OPS.HTP <NOS.COOPS.HPT@noaa.gov>
>
>
> Hi David:
> Data till 1/25/09 is verified and available on our web.
> Manoi
>
> Station # Sn PC
                      Begin Date End Date In COCTT PID
> VID AID Data Type
> --- ---
```

```
> 8761724 1 A1 W1 20081229 00:00 20090104 23:54 6 01000 372
> 295
        6-Minute
> 8761724 1
                 W1 20090105 00:00 20090111 23:54 6 01000 372
             A1
> 295
        6-Minute
> 8761724 1
            A1 W1 20090112 00:00 20090118 23:54 6 01000 372
> 295
        6-Minute
> 8761724 1
                 W1 20090119 00:00 20090120 03:48 6 01000 372
            A1
> 295
        6-Minute
                  W1 20090120 03:54 20090122 16:00 6 01000 372
> 8761724 1
            WL
> 295
        6-Minute
            A1 W1 20090122 16:06 20090125 23:54 6 01000 372
> 8761724 1
> 295
        6-Minute
>
> On Monday, February 2, 2009 we will complete the month of January for
> 6-minute data and generated monthly products.
>
>
>>>> ----- Original Message -----
>>>> From: "David.Scharff" < David.Scharff@noaa.gov>
>>>> Date: Tuesday, January 27, 2009 4:22 pm
>>>> Subject: grand isle tide station down
>>>> To: Manoj Samant < Manoj. Samant@noaa.gov>, Coops
>>>> < NOS.COOPS.HPT@noaa.gov>
>>>>
>>>>
>>>>
>>>> Hi Manoj,
>>>>>
>>>>> Do you know what the status is on the Grand Isle station
>>>>> (8761724)? It dropped off on the 20th, the field party said it
>>>>> came online again on the 22nd and was okay for a few days but
>>>>> has been dropping big chunks of data in the last day or two;
>>>>> sometimes 6 or 7 hours with no data.
>>>>>
>>>>> Thanks,
>>>> Dave
>>>>>
>>>> ------ Original Message ------
>>>> Subject:
                  grand isle tide station down
               Thu, 22 Jan 2009 08:49:11 -0600
>>>> Date:
>>>> From:
                Andy Orthmann <aorthmann@fugro.com>
>>>> To:
              'David Scharff' < David. Scharff@noaa.gov>
              Crescent.Moegling@noaa.gov
>>>> CC:
>>>>>
>>>>>
```

```
>>>>>
>>>> Dave,
>>>>>
>>>>> The Grand Isle tide station (8761724) appears to be down again;
>>>>> last data posted there was 1/20 at 03:48 (UTC). We're using Port
>>>> Fourthon TS meanwhile.
>>>>>
>>>> Thank you,
>>>>>
>>>>> Andy Orthmann
>>>>>
>>>>> Fugro Pelagos, Inc.
>>>>>
>>>>>
>
>
From: David.Scharff [David.Scharff@noaa.gov]
Sent: Thursday, January 29, 2009 11:39 AM
      Andy Orthmann
To:
            [Fwd: [Fwd: Re: [Fwd: Re: grand isle tide station down]]]
Subject:
Attachments: David Scharff.vcf
Andy,
Here is the latest from co-ops...
----- Original Message -----
Subject:
            [Fwd: Re: [Fwd: Re: grand isle tide station down]]
Date: Thu, 29 Jan 2009 13:33:04 -0500
From: Manoj Samant < Manoj Samant@noaa.gov>
To:
      David Scharff < David. Scharff @noaa.gov>
CC:
      _NOS.CO-OPS.HTP <NOS.COOPS.HPT@noaa.gov>
Hi David:
Data till 1/25/09 is verified and available on our web.
Manoj
Station # Sn PC Begin Date End Date In COCTT PID
VID AID Data Type
------ -- -- -------
```

8761724 1 A1 W1 20081229 00:00 20090104 23:54 6 01000 372 295 6-Minute 8761724 1 A1 W1 20090105 00:00 20090111 23:54 6 01000 372 295 6-Minute 8761724 1 A1 W1 20090112 00:00 20090118 23:54 6 01000 372 295 6-Minute 8761724 1 A1 W1 20090119 00:00 20090120 03:48 6 01000 372 295 6-Minute 8761724 1 WL W1 20090120 03:54 20090122 16:00 6 01000 372 295 6-Minute 8761724 1 A1 W1 20090122 16:06 20090125 23:54 6 01000 372 295 6-Minute

On Monday, February 2, 2009 we will complete the month of January for 6-minute data and generated monthly products.

```
>>>>
>>>> ----- Original Message -----
>>>> From: "David.Scharff" < David.Scharff@noaa.gov>
>>>> Date: Tuesday, January 27, 2009 4:22 pm
>>>> Subject: grand isle tide station down
>>>> To: Manoj Samant < Manoj. Samant@noaa.gov>, Coops
>>>> <NOS.COOPS.HPT@noaa.gov>
>>>>
>>>>
>>>> Hi Manoj,
>>>>
>>>> Do you know what the status is on the Grand Isle station
>>>> (8761724)? It dropped off on the 20th, the field party said it
>>>> came online again on
>>>> the 22nd and was okay for a few days but has been dropping big
>>>> chunks of data in the last day or two; sometimes 6 or 7 hours
>>>> with no data.
>>>>
>>>> Thanks,
>>>> Dave
>>>>
>>>> ------ Original Message ------
                 grand isle tide station down
>>>> Subject:
>>>> Date:
              Thu, 22 Jan 2009 08:49:11 -0600
               Andy Orthmann <aorthmann@fugro.com>
>>>> From:
>>>> To:
             'David Scharff' <David.Scharff@noaa.gov>
             Crescent.Moegling@noaa.gov
>>>> CC:
>>>>
```

```
>>>>
>>>>
>>>> Dave,
>>>>
>>>> The Grand Isle tide station (8761724) appears to be down again; last
>>>> data posted there was 1/20 at 03:48 (UTC). We're using Port
>>>> Fourthon TS meanwhile.
>>>>
>>>> Thank you,
>>>>
>>>> Andy Orthmann
>>>>
>>>> Fugro Pelagos, Inc.
>>>>
>>>>
From: David.Scharff [David.Scharff@noaa.gov]
Sent: Thursday, May 14, 2009 7:05 AM
      Andy Orthmann
To:
```

Hi Andy,

Subject:

Regarding your question about the drives you can place as many surveys on a drive you want we just ask you don't spit a single survey onto two separate drives.

Regarding the single beam sounding this is actually not required only the final processed grid is needed. I've attached (below) an email Gene Parker sent to Terrasond recently outlining AHB's requirement. Hope this helps.

Dave

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

Subject: Deviations from SOW for Project OPR-J977-TE-08

Date: Thu, 30 Apr 2009 15:43:25 -0400

Re: data questions

Attachments: David Scharff.vcf

From: "Castle.E.Parker" < Castle.E.Parker@noaa.gov>
To: James DePasquale < jdepasquale@terrasond.com>

CC: Jeffrey Ferguson < jeffrey.ferguson@noaa.gov>, "Shep.Smith"

<Shep.Smith@noaa.gov>,Mark T Lathrop <Mark.T.Lathrop@noaa.gov>,Nicholas A Forfinski <Nicholas.A.Forfinski@noaa.gov>

Good Day Jim,

This email is in response to a TerraSond inquiry related to the deliverables submitted to Atlantic Hydrographic Branch (AHB), Norfolk, VA. AHB requests that TerraSond deviate from project OPR-J977-TE-08 Statement of Work

concerning the S-57 Feature File deliverable. The SOW dated July 18, 2008 states in section 6.2.3 S-57 Feature File, that "single beam soundings will be included in the S-57 feature file portrayed at survey scale." The single beam data incorporated within the the S57 Feature File is unverified at the time of submission. The inclusion of the bathymetric data represented by the soundings is preliminary at the time of submission, and the inclusion of the sounding data is not necessary. AHB will derive or extract the bathymetric sounding values from the final processed grid after the verification process has been completed. Thus, inclusion of unverified sounding data has no end result and is unwarranted. AHB requests that the soundings should not be included within the submitted S-57 Feature File and requests a deviation from the final Statement of Work and the deliverables.

Please respond as necessary with this SOW deviation.

Regards, Castle Eugene Parker

```
Andy Orthmann wrote:
> Hello Dave,
> I'm in the process of preparing the final reports and data
> deliverables for our Grand Isle project, OPR-K977-FU-08.
> I have a couple technical questions but am not sure who to send them
> to since we are submitting this to AHB, would you mind forwarding them
> on to the appropriate person(s) there?
> 1. The specs say that there is to be a separate hard drive submitted
> for each hydrographic survey, in this case four. In the past with PHB
> (and I believe we did this when last submitting to AHB in 2007) it has
> been okay to submit the project on one hard drive (of course each
> survey would be separated by H number in the directory structure). Is
> this okay to do this again (consolidating the surveys on one or two
> drives)?
> 2. Am having a difficult time getting the singlebeam soundings to S-57
> format as required in the specs and SOW, due to limitations in CARIS
> Notebook dealing with large volumes of data. But looking back, for
> Dauphin Island (submitted early 2007) we had the same problem and AHB
> told us it was okay to send in just the XYZ (shoal-biased soundings
```

```
> binned at 5m) in lieu of the S-57 file as AHB had an alternative way
> to generate soundings in S-57 format from that.
> Is this okay to do again? So in other words, a S-57 file containing
> soundings would not come with the deliverables but the XYZ would (an
> S-57 file with the features, bottom samples, and meta-data would be
> included of course).
>
> Thanks Dave,
> Andy Orthmann
> Fugro Pelagos, Inc.
From: David.Scharff [David.Scharff@noaa.gov]
Sent: Wednesday, November 12, 2008 1:09 PM
To:
       David Briggs
              Re: Survey Boundries and DTON
Subject:
Attachments: David_Scharff.vcf
David,
Can you please inform AHB and reference your previous DTON submission so they
have a record that the buoy's position has changed.
Thanks,
Dave
David Briggs wrote:
> Dave,
> It does appear to be a USCG green can buoy #1. I have attached the
> DTON that was submitted which contains a picture of the buoy.
>
> David
> -----Original Message-----
> From: David.Scharff [mailto:David.Scharff@noaa.gov]
> Sent: Wednesday, November 12, 2008 10:44 AM
> To: David Briggs
> Subject: Re: Survey Boundries and DTON
> David,
> Was the buoy you reported a Coast Guard buoy, do you recall what type
> was reported?
```

```
> David Briggs wrote:
>
>> Dave,
>>
>> In our survey, we are finding that the 8' contour is significantly
>> beyond the 8' contour used in our estimate. I would appreciate it if
>> you could give me a call so we can discuss this issue. My number is
>> (561)716-1325.
>>
>> Additionally, we submitted a DTON several months ago for an uncharted
>> buoy. The buoy seems to have disappeared during the hurricanes. Is
>> there any corrective action which I need to take for the DTON?
>>
>> Thanks,
>>
>> David
>>
>> David Briggs
>>
>> Hydrographer
>> Fugro Pelagos, Inc
>>
>> 3738 Ruffin Rd
>>
>> San Diego, CA 92123-1812
>> Phone: 858-292-8922
>>
>> FAX: 858-292-5308
>> dbriggs@fugro.com <mailto:esaade@fugro.com>
>>
>> www.fugro-pelagos.com <a href="http://www.fugro-pelagos.com/">http://www.fugro-pelagos.com/>
>>
>>
From: David Briggs [dbriggs@fugro.com]
Sent: Friday, November 14, 2008 8:42 AM
To:
       Castle.E.Parker@noaa.gov; David Scharff
       'Crescent.Moegling@noaa.gov'; 'Roland Poeckert'
Cc:
              Revision to a DTON
Subject:
Attachments: H11806 DtoN Fugro 280808.pdf
```

A DTON was submitted by Fugro Pelagos in August pertaining to an uncharted buoy. This buoy has

moved from its reported position and can no longer be located. I have attached a copy of the DTON

for your reference. Please let me know if you require any additional information or have any questions.

Thanks,

David Briggs Hydrographer

Fugro Pelagos, Inc 3738 Ruffin Rd San Diego, CA 92123-1812 Phone: 858-292-8922

Fax: 858-292-5308 dbriggs@fugro.com www.fugro-pelagos.com Subject: RE: Inquiry related to Dredge Pipe associated with Survey H11807

From: JRHeard@gldd.com

Date: Thu, 21 Jan 2010 09:16:55 -0600

To: Castle.E.Parker@noaa.gov

CC: BTHansen@gldd.com, DESimonelli@gldd.com, DRappe@gldd.com, KZimmerman@gldd.com

Mr. Parker,

I spoke with Brad Hansen, VP of Hydraulic dredging operations in our office. He indicated that the pipeline was from work Great Lakes performed at Pass Chaland and that the project has been completed and all pipeline picked up.

Janice Heard

----Original Message----

From: Castle.E.Parker [mailto:Castle.E.Parker@noaa.gov]

Sent: Wednesday, January 20, 2010 11:50 AM

To: Janice R Heard

Cc: Vanessa Self; Wesley Kitt

Subject: Inquiry related to Dredge Pipe associated with Survey H11807

Good Day Janice,

I appreciate your call related to FUGRO survey H11807 and the documented

GLDD dredge operations and dredge pipes. Please reference the attached pdf which contains two pages extracted from H11807 descriptive report (pages 7 & 8). The dredge pipe is documented in three sections, one being partially within the western section of H11807 (magenta arrow), one pipe section (green arrow) in the central portion of H11807, and the

most western section associated with survey H11806 (two red arrows). The

dredge pipe locations are documented on the first page, along with a graphic image on the second page. The green bounding perimeter within Figure 4 is H11807 coverage limits.

What I need to know from GLDD is following:

- 1. Was this a GLDD dredge operation?
- 2. Did GLDD retrieve the dredge pipes that are documented within the data submitted.

My concern is that if GLDD has retrieved or salvaged the dredge pipe that I do not want to apply this feature to the chart as an obstruction. Any information related to this issue would be appreciated.

I thank you for your time and effort with this matter.

Regards,

Castle Parker

1 of 1 1/21/2010 11:19 AM

National Geodetic Survey's Vector Shoreline

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IDENTIFICATION INFORMATION

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IDENTIFICATION_INFORMATION:

Citation:

Citation_Information:

Originator:

U.S. Department of Commerce, National Oceanic and

Atmospheric Administration (NOAA), National Ocean Service (NOS),

National Geodetic Survey (NGS)

Publication_Date:20101108

Title: Shoreline Mapping Program of GULF COAST, GRAND TERRE ISLANDS TO BASTIAN

BAY, LA, LA0703B **Edition:** Unknown

Geospatial_Data_Presentation_Form: Vector digital data

Publication Information:

Publication_Place: Silver Spring, MD

Publisher: U.S. Department of Commerce, National Oceanic

and Atmospheric Administration (NOAA), National Ocean Service

(NOS), National Geodetic Survey (NGS)

Other_Citation_Details:

These vector data represent shoreline and associated data originating from current remote sensing production. The vector data files are seamless within the surveyed project area.

Online Linkage: http://www.ngs.noaa.gov/newsys ims/shoreline/index.cfm

Larger_Work_Citation: Citation Information:

Originator:

U.S. Department of Commerce, National Oceanic and

Atmospheric Administration (NOAA), National Ocean Service (NOS),

National Geodetic Survey (NGS)

Publication Date: 1807

Title: Shoreline Mapping Program

Publication_Information:

Publication Place: Silver Spring, Maryland

Publisher:

U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), National Geodetic Survey (NGS)

Other_Citation_Details:

In 1807, Thomas Jefferson created an organization named the Survey of the Coast "...to cause a survey to be taken of coasts of the United States, in which shall be designated the islands and shoals and places of anchorage..." The data were created by the National Ocean Service, National Geodetic Survey as part of its ongoing mission to provide base maps of the coastline. The data are made available through a web-based delivery system.

Online_Linkage: http://www.ngs.noaa.gov/RSD/shoredata/NGS_Shoreline_Products.htm
Description:
Abstract:

These data provide an accurate high-resolution shoreline compiled from imagery of GULF COAST, GRAND TERRE ISLANDS TO BASTIAN BAY, LA This vector shoreline data is based on an office interpretation of imagery that may be suitable as a geographic information system (GIS) data layer. This metadata describes information for both the line and point shapefiles. The NGS attribution scheme 'Coastal Cartographic Object Attribute Source Table (C-COAST)' was developed to conform the attribution of various sources of shoreline data into one attribution catalog. C-COAST is not a recognized standard, but was influenced by the International Hydrographic Organization's S-57 Object-Attribute standard so the data would be more accurately translated into S-57.

Purpose:

The shoreline and associated data layers were originally intended to support NOAA Nautical Chart production. These datasets have been cleaned and reformatted to support the efforts of supplying accurate shoreline data layers for a coastal GIS database. These datasets may be beneficial for performing change analysis for erosion and accretion studies, land use planning, determination of boundary extent, and other types of decision making.

Supplemental_Information:

Metadata may be viewed and saved after a shoreline project is selected or is automatically created during the download option. Metadata includes only those features selected to be displayed on the map within the Navigator View. It is the user's responsibility to save the metadata from the displayed pop-up window.

Preview <u>HTTP://www.ngs.noaa.gov/RSD/shoredata/NGS_Shoreline_Products.htm</u> Moreinfo HTTP://www.ngs.noaa.gov/RSD/shoredata/NGS_Shoreline_Products.htm

Time_Period_of_Content: Time_Period_Information: Single Date/Time:

> Calendar_Date: 20101108 Time of Day: Unknown

Currentness_Reference: Ground Condition

Status:

Progress: Complete

Maintenance_and_Update_Frequency: Unknown

Spatial Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: -89.9044443 East_Bounding_Coordinate: -89.611432 North_Bounding_Coordinate: 29.3870035 South Bounding Coordinate: 29.1479999

Description_of_Geographic_Extent: A portion of LA0703B

Keywords: Theme:

Theme Keyword Thesaurus: None

Theme_Keyword: Shoreline map Theme_Keyword: Coastal base map Theme_Keyword: Coastal zone map

Theme_Keyword: Shoreline

Theme_Keyword: Coastal Mapping Program Theme_Keyword: Shoreline Mapping Program

Theme_Keyword: Shoreline data

Theme_Keyword: GC

Theme_Keyword: Geographic Cell

Theme_Keyword: LA0703B

Theme_Keyword: Coast and Geodetic Survey Theme_Keyword: Tide-controlled Photography

Theme_Keyword: GC10805

Place:

Place Keyword Thesaurus: none

Place_Keyword: GULF COAST, GRAND TERRE ISLANDS TO BASTIAN BAY, LA

Place_Keyword: LA

Temporal:

Temporal Keyword Thesaurus: none

Temporal_Keyword: 200709 Access Constraints: none

Use Constraints:

These data were generated for use by NGS during the course of its development of potential final products to fulfill its statutory mission. Although NGS is making these data available to others who may find the data of value, NGS does not warrant, endorse, or recommend the use of these data for any given purpose. The user assumes the entire risk related to the use of these data. These data are not for navigational purposes. NGS is providing these data "as is," and NGS disclaims any and all warranties, whether expressed or implied, including (without limitation) any implied warranties of merchantability or fitness for a particular purpose. In no event will NGS be liable to you or to any third party for any direct, indirect, incidental, consequential, special, or exemplary damages or lost profits resulting from any use or misuse of these data.

Point of Contact:

Contact_Information:

Contact_Organization_Primary: Contact_Organization:

U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Ocean Service, National Geodetic Survey, Remote Sensing Division

Contact_Position: Chief Remote Sensing Division

Contact Address:

Address_Type: Mailing and physical address

Address: 1315 East-West Highway

City: Silver Spring

State_or_Province: Maryland **Postal_Code:** 20910-3282

Country: USA

Contact_Voice_Telephone: (301) 713-2663 Contact_Facsimile_Telephone: (301) 713-4572

Contact_Electronic_Mail_Address: info_center@ngs.noaa.gov

Hours_of_Service: Monday through Friday, 7:00 a.m. to 4:30 p.m., Eastern Standard Time

Native Data Set Environment:

Windows NT Version 4.0 (Build 1381) Service Pack 6; ESRI ArcInfo 8.1.0.415

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DATA_QUALITY_INFORMATION

Attribute Accuracy:

Attribute Accuracy Report:

The attribute accuracy was verified on the softcopy workstation by overlaying the vectors over the imagery and by creating checkplots of the attributed linework. The attributes were translated into NGS's Coastal Cartographic Object Attribute Source Table (C-COAST) for data consistency. The C-COAST attributes were given symbology and visually inspected to verify attribute accuracy.

Logical Consistency Report:

All data are clipped to the neatline representing a surveyed project boundary. Line segments which did not close were snapped by the nodes to create consistently tied strings without node dangles.

Completeness Report:

The shoreline and associated data are a representation based on an office interpretation of

imagery at the time of survey 200709. To maintain shoreline continuity, a line with 'Shoreline/Alongshore Feature Boundary' attribution was added to the 'Shoreline' class. This feature is an artificial line that separates double-lined alongshore features from the shoreline. The 'Shoreline/Alongshore Feature Boundary' indicates to the user that a manmade alongshore feature is coincident to the shoreline in the data file. The rectangular geographic boundary limits is for data management purposes and does not infer complete surveyed coverage.

Positional_Accuracy:

Horizontal_Positional_Accuracy:

Horizontal_Positional_Accuracy_Report:

Compiled to meet 10 meters horizontal accuracy at 95% confidence level. This predicted accuracy of compiled well-defined points is a deductive estimate based on statistics of image rectification process

Quantitative_Horizontal_Positional_Accuracy_Assessment:

Horizontal_Positional_Accuracy_Value: 10 meters

Horizontal_Positional_Accuracy_Explanation: These data are accurate to within 10 meters with a 95% circular error confidence level. Reports associated with the project describe the processes including the selection of horizontal control.

Lineage:

Source Information:

Source Citation:

Citation Information:

Originator: U.S. Department of Commerce, National Oceanic and

Atmospheric Administration, National Ocean Service, National Geodetic Survey

Publication_Date: 20101108

Title: Shoreline Mapping Program of LA0703B

Edition: First

Geospatial_Data_Presentation_Form: remote-sensing image

Publication_Information:

Publication_Place: Silver Spring, MD

Publisher:

U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Ocean Service, National Geodetic Survey

Other_Citation_Details: none

Online Linkage:

LA0703B

Type_of_Source_Media: disc

Source Time Period of Content:

 $Time_Period_Information:$

Single_Date/Time: Calendar Date: 2007

Calendar_Date: 200709 Time_of_Day: Unknown

Source_Currentness_Reference: ground condition

Source Citation Abbreviation: Digital Cartographic Feature Files:

LA0703B

Source_Contribution:

Compilation derived from interpreted imagery

Process_Step:

Process_Description:

Softcopy compilation was from interpreted imagery based on standard digital photogrammetric procedures. All features were attributed during compilation. The exported shapefile attribution was translated to conform with the NGS 'Coastal Cartographic Object Attribute Source Table (C-COAST)' attribution scheme.

Process_Date: 20100408

Process_Contact:

Contact Information:

Contact_Organization_Primary:

Contact_Organization:

U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Ocean Service, National Geodetic Survey, Remote Sensing Division

Contact_Position: Chief Remote Sensing Division

Contact Address:

Address_Type: Mailing and physical address

Address: 1315 East-West Highway

City: Silver Spring

State_or_Province: Maryland Postal Code: 20910-3282

Country: USA

Contact_Voice_Telephone: (301) 713-2663 Contact_Facsimile_Telephone: (301) 713-4572

Contact_Electronic_Mail_Address: shoreline@ngs.noaa.gov

Hours_of_Service: Monday through Friday, 7:00 a.m. to 4:30 p.m., Eastern Standard Time

Process_Step_Citation:

Information relating to the field survey and compiled activities are described in the project's Descriptive Reports.

http://www.csc.noaa.gov/products/shorelines

Tidal Information:

Type_of_Tide: Unknown

Time_of_Tide:

Time_of_Low_Tide: Unknown Time_of_High_Tide: Unknown Tidal Datum: Mean high water Range_of_Tide: Unknown

Tide_Table_Reference: http://tidesonline.nos.noaa.gov/

Marine_Weather_Condition:
Wind_Speed: Unknown
Wind_Direction: Unknown
Wave_Height: Unknown

Barometric_Pressure: Unknown

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SPATIAL_DATA_ORGANIZATION_INFORMATION

Direct_Spatial_Reference_Method: Vector Point_and_Vector_Object_Information:

 ${\bf SDTS_Terms_Description:}$

SDTS_Point_and_Vector_Object_Type: Complete chain

Point_and_Vector_Object_Count: 3799

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SPATIAL_REFERENCE_INFORMATION

Horizontal_Coordinate_System_Definition:

Geographic:

Latitude_Resolution: 0.0000001 **Longitude_Resolution:** 0.0000001

Geographic_Coordinate_Units: Decimal Degrees

Geodetic_Model:

Horizontal_Datum_Name: North American Datum of 1983

Ellipsoid_Name: Geodetic Reference System 80

Semi-major_Axis: 6,378,137

Denominator_of_Flattening_Ratio: 298.257

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ENTITY AND ATTRIBUTE INFORMATION

```
Detailed_Description:
 Entity Type:
  Entity_Type_Label: ALONGSHORE FEATURE
  Entity_Type_Definition: Specified in C_COAST
  Entity_Type_Definition_Source: C-COAST
 Attribute:
  Attribute label: ALONGSHORE FEATURE Attribute
  Attribute_Definition: Classification of ALONGSHORE FEATURE according to C-COAST
  Attribute Definition Source: C-COAST
  Attribute_Domain_Values:
  Enumerated Domain:
   Enumerated_Domain_Value: Breakwater.Bare
   Enumerated_Domain_Value_Definition: Specified in C_COAST
   Enumerated Domain Value Definition Source: C COAST
  Enumerated Domain:
   Enumerated_Domain_Value: Bridge.Footbridge
   Enumerated_Domain_Value_Definition: Specified in C_COAST
   Enumerated_Domain_Value_Definition_Source: C_COAST
  Enumerated Domain:
  Enumerated_Domain_Value: Groin.Covers/Uncovers Or Submerged
   Enumerated Domain Value Definition: Specified in C COAST
   Enumerated_Domain_Value_Definition_Source: C_COAST
  Enumerated Domain:
  Enumerated_Domain_Value: Pier.Fixed
   Enumerated Domain Value Definition: Specified in C COAST
   Enumerated_Domain_Value_Definition_Source: C_COAST
  Enumerated Domain:
   Enumerated Domain Value: Pier.Ruins
   Enumerated_Domain_Value_Definition: Specified in C_COAST
   Enumerated Domain Value Definition Source: C COAST
Detailed Description:
 Entity_Type:
  Entity_Type_Label: SHORELINE
  Entity_Type_Definition: Specified in C_COAST
  Entity Type Definition Source: C-COAST
 Attribute:
  Attribute_label: SHORELINE Attribute
  Attribute_Definition: Classification of SHORELINE according to C-COAST
  Attribute_Definition_Source: C-COAST
  Attribute_Domain_Values:
  Enumerated_Domain:
   Enumerated Domain Value: Man-made.Bulkhead Or Sea Wall
   Enumerated_Domain_Value_Definition: Specified in C_COAST
   Enumerated_Domain_Value_Definition_Source: C_COAST
  Enumerated Domain:
   Enumerated_Domain_Value: Man-made.Bulkhead Or Sea Wall.Ruins
   Enumerated Domain Value Definition: Specified in C COAST
```

Enumerated_Domain_Value_Definition_Source: C_COAST **Enumerated Domain:** Enumerated_Domain_Value: Man-made.Rip Rap Enumerated_Domain_Value_Definition: Specified in C_COAST **Enumerated Domain Value Definition Source:** C COAST **Enumerated Domain: Enumerated_Domain_Value:** Natural.Apparent.Marsh Or Swamp Enumerated_Domain_Value_Definition: Specified in C_COAST **Enumerated Domain Value Definition Source:** C COAST **Enumerated Domain:** Enumerated_Domain_Value: Natural.Mean High Water Enumerated_Domain_Value_Definition: Specified in C_COAST **Enumerated Domain Value Definition Source:** C COAST **Detailed_Description: Entity_Type: Entity Type Label:** .shp table Entity_Type_Definition: ArcView shapefile table **Entity Type Definition Source: ESRI Attribute:** Attribute_Label: Shape **Attribute_Definition:** Data type of each theme feature **Attribute Definition Source: NGS Attribute Domain Values: Enumerated Domain:** Enumerated_Domain_Value: point Enumerated_Domain_Value_Definition: 0 dimensional feature Enumerated_Domain_Value_Definition_Source: NGS **Enumerated Domain:** Enumerated_Domain_Value: line Enumerated Domain Value Definition: 1 dimensional feature **Enumerated Domain Value Definition Source: NGS Enumerated_Domain:** Enumerated_Domain_Value: polygon Enumerated_Domain_Value_Definition: 2 dimensional feature **Enumerated Domain Value Definition Source: NGS Attribute:** Attribute_Label: DATA_SOURC **Attribute Definition: Attribute_Definition_Source:** NGS Attribute_Domain_Values: **Enumerated Domain: Enumerated Domain Value: A** Enumerated_Domain_Value_Definition: AERIAL PHOTOGRAPHY - Film emulsion Enumerated_Domain_Value_Definition_Source: NGS **Enumerated Domain: Enumerated Domain Value:** D Enumerated_Domain_Value_Definition: DIGITAL PHOTOGRAPHY - Scanned or from digital **Enumerated Domain Value Definition Source: NGS Enumerated Domain: Enumerated_Domain_Value:** M

Enumerated_Domain_Value_Definition: MULTIPLE SOURCES - Other sources **Enumerated Domain Value Definition Source: NGS Attribute: Attribute Label: FEATURE** Attribute_Definition: Cartographic feature code from the Coastal Cartographic Object Attribute Source Table (C-COAST) attribution scheme Attribute_Definition_Source: NGS **Attribute Domain Values:** Range Domain: Range_Domain_Minimum: 1 Range_Domain_Maximum: 205 **Attribute: Attribute_Label:** EXTRACT_TE Attribute_Definition: "Extraction Technique" - Technology used to extract feature from source **Attribute Definition Source: NGS Attribute Domain Values: Enumerated Domain: Enumerated_Domain_Value:** A **Enumerated Domain Value Definition:** ANALOG PLOTTER Enumerated_Domain_Value_Definition_Source: NGS **Enumerated Domain: Enumerated Domain Value: B Enumerated Domain Value Definition:** ANALYTICAL PLOTTER Enumerated_Domain_Value_Definition_Source: NGS **Enumerated Domain: Enumerated_Domain_Value:** P **Enumerated Domain Value Definition: PLANETABLE** Enumerated_Domain_Value_Definition_Source: NGS **Enumerated Domain: Enumerated_Domain_Value:** S Enumerated_Domain_Value_Definition: SOFTCOPY Enumerated_Domain_Value_Definition_Source: NGS **Attribute: Attribute Label: RESOLUTION** Attribute_Definition: Technology used to extract feature from source ('0' in the range domain equates to full resolution) **Attribute Definition Source: NGS Attribute Domain Values:** Range_Domain: Range_Domain_Minimum: 0 Range Domain Maximum: 4 **Attribute:** Attribute_Label: CLASS **Attribute Definition:** Name of class selected from C-COAST. These values are documented in detail in the preceding Detailed Description sections of this metadata. **Attribute Definition Source:** C-COAST **Attribute Domain Values: Codeset Domain:** Codeset_Name: C-COAST

Codeset_Source: NGS

Attribute:

Attribute_Label: ATTRIBUTE

Attribute_Definition: Selected object attribute chosen from C-COAST. These values are

documented in detail

in the preceding Detailed Description sections of this metadata.

Attribute_Definition_Source: C-COAST

Attribute_Domain_Values:

Codeset Domain:

Codeset_Name: C-COAST Codeset_Source: NGS

Attribute:

Attribute Label: INFORM

Attribute_Definition: Additional Information

Attribute_Definition_Source: NGS

Attribute_Domain_Values: Unrepresentable_Domain: free text

Attribute:

Attribute_Label: HOR_ACC

Attribute_Definition: Horizontal positional accuracy reported in meters

Attribute_Definition_Source: NGS

Attribute_Domain_Values:

Range Domain:

Range_Domain_Minimum: 0
Range_Domain_Maximum: 200

Attribute:

Attribute_Label: SRC_DATE

Attribute_Definition: Date of source imagery

Attribute_Definition_Source: NGS

Attribute_Domain_Values: Unrepresentable_Domain: date

Attribute:

Attribute_Label: SOURCE_ID

Attribute_Definition: Geographic Cell Identifier

Attribute Definition Source: NGS

Attribute_Domain_Values:

Unrepresentable_Domain: free text

Attribute:

Attribute Label: EX METH

Attribute_Definition: Method used to extract feature from the source

Attribute_Definition_Source: NGS

Attribute_Domain_Values: Enumerated Domain:

Enumerated_Domain_Value: M

Enumerated_Domain_Value_Definition: MONO - Compiled from monoscopic image

Enumerated Domain Value Definition Source: NGS

Enumerated Domain:

Enumerated_Domain_Value: S

Enumerated Domain Value Definition: STEREO - Compiled from stereoscopic image

Enumerated Domain Value Definition Source: NGS

DISTRIBUTION_INFORMATION

Distributor:

Contact Information:

Contact_Organization_Primary:

Contact_Organization: NOAA NOS National Geodetic Survey, Information Services Division

Contact_Position: Information Specialist

Contact_Address:

Address_Type: Mailing and physical address

Address: 1315 East-West Highway

City: Silver Spring
State_or_Province: MD
Postal_Code: 20910-3282

Country: USA

Contact_Voice_Telephone: (301) 713-2663 Contact_Facsimile_Telephone: (301) 713-4572

Contact_Electronic_Mail_Address: shoreline@ngs.noaa.gov

Hours_of_Service: Monday through Friday, 7 a.m. to 4:30 p.m., Eastern Standard Time

Resource_Description:

Vector NGS Shoreline data

Distribution_Liability:

Not intended for navigational purposes

Standard_Order_Process:

Digital_Form:

Digital_Transfer_Information:

Format_Name: ESRI Arcview Shapefiles

Digital_Transfer_Options:

Online_Option:

 $Computer_Contact_Information:$

Network Address:

Network_Resource_Name: http://www.ngs.noaa.gov/newsys_ims/shoreline/index.cfm

Fees: none

Ordering_Instructions:

Web access at http://www.ngs.noaa.gov/newsys_ims/shoreline/index.cfm/

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METADATA REFERENCE INFORMATION

Metadata_Date: 20101108

Metadata_Contact: Contact Information:

Contact_Organization_Primary: Contact_Organization: NOAA - NOS Contact_Position: Metadata specialist

Contact_Address:

Address_Type: Mailing and physical address

Address: 1315 East-West Highway

City: Silver Spring
State_or_Province: MD
Postal_Code: 20910-3282

Country: USA

Contact_Voice_Telephone: (301) 713-2663 (x109) Contact_Facsimile_Telephone: (301) 713-4572

Contact_Electronic_Mail_Address: shoreline@ngs.noaa.gov

Hours_of_Service: Monday through Friday, 7 a.m. to 4:30 p.m., Eastern Standard Time

Metadata_Standard_Name: FGDC CSDGM

Metadata_Standard_Version: FGDC-STD-001-1998

Online_Linkage: HTTP://www.csc.noaa.gov/RSD/metadata/shoreline_profile.html

Profile_Name: Shoreline Metadata profile

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	Field			S-57 Att	S-57 Attribute Assignments	gnments
ID#	Description	Latitude	Longitude	Colour	NATQUA	NATSUR
	1 2-SHT D BS01 VERY SOFT GREY MUD 1 PICT	N29 17.4557	W089 48.1010	7	6	ᅡ
	2 2-SHT_D_BS02 SOFT/VERY STICKY GREY MUD 1 PICT	N29 17.4523	W089 46.9013	7	6,5	1
	3 2-SHT_D_BS03 SOFT GREY MUD 1 PICT	N29 17.5315	W089 45.5928	7	6	1
	4 2-SHT_D_BS04 SOFT GREY MUD WITH SMALL SHELL 2 PICT	N29 17.5182	W089 44.4215	7	6	1,17
	5 2-SHT_D_BS05 soft grey mud	N29 17.5365	W089 43.1360	7	6	1
	6 2-SHT_D_BS06 SOFT GREY MUD 1 PICT	N29 16.3837	W089 48.1037	7	6	1
	7 2-SHT_D_BS07 SOFT GREY MUD 1 PICT	N29 16.3895	W089 46.8632	7	6	1
	8 2-SHT_D_BS08 SOFT GREY MUD 2 PICS	N29 16.3980	W089 45.6380	7	6	1
	9 2-SHT_D_BS09 SOFT GREY MUD WITH SMALL SHELL 1 PICT	N29 16.4278	W089 44.3845	7	6	1,17
	10 2-SHT_D_BS10 SOFT GREY MUD WITH SMALL SHELL 1 PICT	N29 16.5185	W089 43.1480	7	6	1,17
	11 2-SHT_D_BS11 soft mud with shells	N29 16.4707	W089 41.9172		6	1
	12 2-SHT_D_BS12 SOFT GREY MUD 1 PICT	N29 15.2660	W089 48.0627	7	6	1
	13 2-SHT_D_BS13 SOFT GREY MUD 1 PICT	N29 15.2973	W089 46.7952	7	6	1
	14 2-SHT_D_BS14 SOFT GREY MUD WITH A WORM 1 PICT	N29 15.3725	W089 45.5980	7	6	1
	15 2-SHT_D_BS15 SOFT GREY MUD WITH A SMALL SHELL 1 PICT	N29 15.3238	W089 44.2810	7	6	1,17
	16 2-SHT_D_BS16 mud. 1 picture	N29 15.3008	W089 43.1345			1
	17 2-SHT_D_BS17 soft mud. 1 pic	N29 15.3677	W089 41.9773		6	1
	18 2-SHT_D_BS18 SOFT GREY MUD 2 PICT	N29 14.1925	W089 48.0502	7	6	1
	19 2-SHT_D_BS19 SOFT GREY MUD 2 PICT	N29 14.2015	W089 46.8090	7	6	1
	20 2-SHT_D_BS20. SOFT MUD. 1 PICTURE	N29 14.2873	W089 45.5450		6	1
	21 2-SHT_D_BS21. VERY SOFT MUD. 1 PICTURE	N29 14.2740	W089 44.3465		6	1
	22 2-SHT_D_BS22 soft mud. shrimp. 1 picture	N29 14.2737	W089 43.1207		6	1
	23 2-SHT_D_BS23 SOFT GREY MUD 2 PICTS	N29 13.0177	W089 47.9833	7	6	1
	24 2-SHT_D_BS24 GREY SOFT MUD. 1 PICTURE	N29 13.1375	W089 46.7800	7	6	1
	25 2-SHT_D_BS25 SOFT MUD. 1 PICTURE	N29 13.1282	W089 45.5450		6	1
	26 2-SHT_D_BS26 GRAY SOFT MUD W/ SHELLS. 1 PICTURE	N29 13.1633	W089 44.3188	7	6	1,17
	27 2-SHT_D_BS27 soft mud. 2 pictures	N29 13.1842	W089 43.0865		6	1
	28 2-SHT_D_BS28_SOFT MUD. 2 PICTURES	N29 12.0637	W089 47.9907		6	1

29 2-SHT_D_BS29 SOFT MUD. 1 PICTURE	N29 12.0403 W089 46.7517	7517	6	1
30 2-SHT_D_BS30 SOFT MUD. 1 PICTURE	N29 12.0637 W089 45.5180	5180	6	1
31 2-SHT_D_BS31 SOFT MUD. 1 PICTURE	N29 12.0833 W089 44.2457	2457	6	1
32 2-SHT_D_BS32 soft mud. 1 picture	N29 12.0905 W089 43.0535	.0535	6	1
33 2-SHT_D_BS33 SOFT MUD. 1 PICTURE	N29 10.9920 W089 47.9335	9335	6	1
34 2-SHT_D_BS34 SOFT MUD. 1 PICTURE	N29 10.9923 W089 46.6853	.6853	6	1
35 2-SHT_D_BS35 SOFT MUD. 2 PICTURES	N29 11.0302 W089 45.4968	4968	6	1
36 2-SHT_D_BS36 soft gray mud_ 1 picture	N29 11.0432 W089 44.2855	2855 7	6	1
37 2-SHT D BS37 soft mud 1 picture	N29 11.0160 W089 43.0298	0298	6	1

AHB COMPILATION LOG

	General Survey Information	
REGISTRY No.	H11807	
PROJECT No.	OPR-K977-FU-08	
FIELD UNIT	FUGRO	
DATE OF SURVEY	20080919-20090329	
LARGEST SCALE CHART	11358_1, edition 56, July 2010, 1:80,000	
SOUNDING UNITS	Feet	
COMPILER	Wyllie	_

Source Grids	File Name
	H:\Compilation\H11807_K977_Fugro\AHB_H11807\E-SAR Final Products\GRIDS
	H11807_MB_50cm_MLLW_1of2.csar
	H11807_VB_4m_MLLW_2of2.bag
Surfaces	File Name
Surfaces	H:\Compilation\H11807_K977_Fugro\AHB_H11807\COMPILE\Working
Combined	H11807_MBVB_4m_MLLW_combined.csar
Interpolated TIN	\Interpolated TIN\H11807_12m_InterpTIN.csar
Shifted Interpolated TIN	\Shifted Surface\H11807_12m_InterpTIN_Shifted.csar
Final HOBs	File Name
Filiai HODS	H:\Compilation\H11807_K977_Fugro\AHB_H11807\COMPILE\Final_Hobs
Survey Scale Soundings	H11807_SS_Soundings.hob
Chart Scale Soundings	H11807_CS_Soundings.hob
Contour Layer	H11807_Contours.hob
Feature Layer	H11807_Features.hob
Meta-Objects Layer	H11807_MetaObjects.hob
Blue Notes	H11807_BlueNotes.hob

Meta-Objects Attribution				
Acronym	Value			
M_COVR				
CATCOV	1 – coverage available			
SORDAT	20090329			
SORIND	US,US,graph,H11807			
M_QUAL				
CATZOC	6 – zone of confidence U (data not assessed)			
INFORM	R/V LOCATOR (CF-4540-NB) and R/V CHINOOK			
	(AK-1437-K)			
POSACC	10 m			
SORDAT	20090329			
SORIND	US,US,graph,H11807			
SUREND	20090329			
SURSTA	20080919			
DEPARE				
DRVALV 1	4.000 ft			
DRVALV2	57.000 ft			
SORDAT	20090329			
SORIND	US,US,graph,H11807			

SPECIFICATIONS:

I. COMBINED SURFACE:

a. Number of SAR Final Grids:b. Resolution of Combined (m):4 m

II. SURVEY SCALE SOUNDINGS (SS):

a. Attribute Name: Depth

b. Selection criteria: Radius, Shoal bias
c. Radius value is: mm at map scale
i. Radius table file: H11807_SS_SSR.txt

H11807_SS_SSR.	.txt - Notepad
File Edit Format Vie	w Help
D 1.8288 1.82881 3.6576 3.65761 5.4864 5.48641 9.1440 9.14401 10.9728 10.97281 18.28801	.8 .9

d. Queried Depth of All Soundings

i. Minimum: 4.636 ft ii. Maximum: 56.132 ft

III. INTERPOLATED TIN SURFACE:

a. Resolution (m): 12 m

b. Interpolation method:

Natural Neighbor

c. Shift value: -0.75 ft

IV. CONTOURS:

a. Attribute Name: Depth

b. Use a Depth List: H11807_depth_contours.txt



c. Output Options: Create contour lines

i. Line Object: DEPCNTii. Value Attribute: VALDCO

V. FEATURES:

a. Number of Chart Features: 31

VI. CHART SURVEY SOUNDINGS (CS):

a. Number of ENC CS Soundings: 174b. Attribute Name: Depth

c. Selection criteria: Radius, Shoal bias

d. Radius value is: Distance on the ground (m)

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

i. Radius table file:

H11807_CS_SSR.txt

№ H1180	07_CS_SSR.txt - Notepad
File Edit	Format View Help
p 1.8289 3.6577 5.4865 9.1441	1.8288 500 3.6576 500 5.4864 600 9.1440 950 18.2880 1150

ii. Enable Filter:

e. Number Survey CS Soundings:

Interpolated !=1

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ATLANTIC HYDROGRAPHIC BRANCH H-CELL REPORT to ACCOMPANY SURVEY H11807 (2009)

This H-Cell Report has been written to supplement and/or clarify the original Descriptive Report (DR) and pass critical compilation information to the cartographers in the Marine Chart Division. Sections in this report refer to the corresponding sections of the Descriptive Report.

B. DATA ACQUISITION AND PROCESSING

B.2 QUALITY CONTROL

The AHB source depth grids for the survey's nautical chart update were a 0.50m BASE surface (*.CSAR) and a 4m resolution BAG surface, which were combined at 4m resolution. The survey scale soundings were created from the combined surface using a sounding spacing range (SRR) file. A TIN was created from the survey scale soundings, from which an interpolated surface of 12m resolution was generated. The chart scale soundings were selected from the filtered interpolated surface using a SSR file. The chart scale soundings are a subset of the survey scale soundings. The surface model was referenced when selecting the chart scale soundings, to ensure that the selected soundings portray the bathymetry within the common area.

The interpolated TIN surface of 12m resolution was shifted by the NOAA sounding rounding value of -0.75 feet. The shifted interpolated TIN was used to generate depth contours in feet (6, 12, 18, 30ft). The depth contours are forwarded to MCD for reference only. The contours were utilized during chart scale sounding selection and quality assurance efforts at AHB. The depth contours are incorporated into the SS H-Cell product as per 2009 H-Cell Specifications.

The compilation products (Final *.HOB files) for this survey are detailed in the H11807 AHB Compilation Log contained within this document. The Final HOB files include depth areas (DEPARE), depth contours (DEPCNT), soundings (SOUNDG), meta-objects (M_COVR, M_QUAL), cartographic Blue Notes (\$CSYMB), and features (COALNE, OBSTRN, SBDARE, UNSARE).

As dictated by Hydrographic Technical Directive 2008-8, the Final HOB files were combined into two separate H-Cell files in S-57 format. Both S-57 files were exported from CARIS Bathy DataBASE in meters, and then converted from metric units into feet using CARIS HOM ENC 3.3. Quality assurance and topology checks were conducted using CARIS S-57 Composer 2.1 validation tests and DKART Inspector 5.0 validation tests.

The final H-Cell products are two S-57 files, in Lat/Long NAD-83. The contents of these two H-Cell deliverables are listed in the table below:

TABLE 1 - Contents of H-Cell Files				
H11807_CS.0	00	Sca	le 1:80,000	
Object Class Types	Geographic	Cartographic	Meta	
S-57 Object Acronyms	DEPARE	\$CSYMB	M_COVR	
	OBSTRN		M_QUAL	
	SBDARE			
	COALNE			
	SOUNDG			
	UNSARE			
H11807_SS.000		Sca	le 1:40,000	
Object Class Types	Geographic			
S-57 Object Acronyms	DEPCNT			
	SOUNDG			

B.2.4 Junctions and Prior Surveys

Survey H11807 (2009) junctions with survey H11806 (2009) to the west and survey depths compare within 1 foot. Most present survey depths compare within 3 feet of the charted hydrography to the east and south.

B.4 DATA PROCESSING

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

CARIS Bathy DataBASE version 3.0/HF8

CARIS HIPS and SIPS version 7.0/SP2/HF3

CARIS S-57 Composer version 2.1/HF4

CARIS HOM ENC version 3.3/SP3/HF8

DKART Inspector version 5.0

C. HORIZONTAL AND VERTICAL CONTROL

The hydrographer makes adequate mention of horizontal and vertical control used for this survey in section C of the DR. The sounding datum for this survey is Mean Lower Low Water (MLLW), and the 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 North.

D. <u>RESULTS AND RECOMMENDATIONS</u>

D.1 CHART COMPARISON 11358 (56th Edition, July 2010)

Barataria Bay and approaches Corrected through NM 11/06/2010 Corrected through LNM 10/26/2010 Scale 1:80 000

Scale 1:80,000

ENC COMPARISON US4LA32M

Barataria Bay and approaches Edition 27 Application Date 2010/06/22 Issue Date 2010/09/17 Chart 11358

D.2 <u>ADDITIONAL RESULTS</u>

The charted hydrography originates with prior surveys and requires no further consideration. The hydrographer makes adequate chart comparisons in section D and Appendix I and II of the DR. The hydrographer recommends that any charted features not specifically addressed either in the H-Cell files or the Blue Notes should be retained as charted. The following exceptions are noted:

The statement of work stated that the "inshore limit shall be the 8-foot contour." These instructions were taken literally by the contractor to mean the charted 8-foot contour (which doesn't exist). The contractor did run crosslines to the actual 8 foot depths and submitted that data separate from the vertical beam grid. During the SAR process, the crosslines were included with the rest of the grid when it was recomputed. There are charted shoal depths in this inshore area that cannot be disproved by this survey's crosslines. These crosslines indicate significant bathymetric change in this area, which is further substantiated by hydrography on currently charted land areas. In lieu of these sparse survey results it is recommended that this area be represented on the chart as "unsurveyed". See images below:

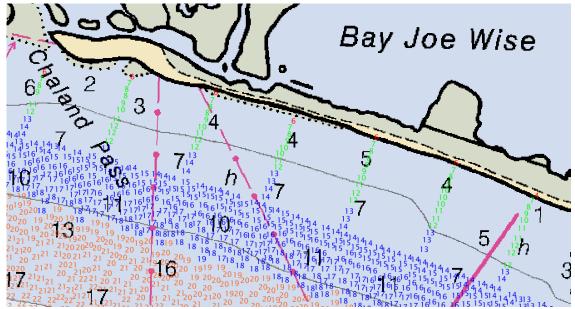


Image shows several shoal soundings inshore that cannot be disproved.

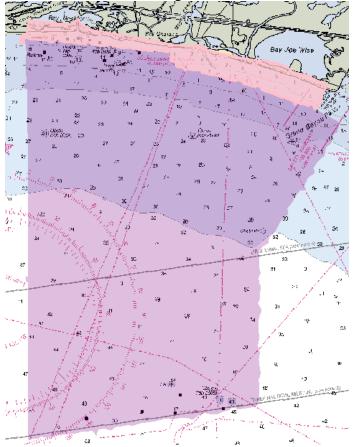


Image shows unsurveyd area, included in H-Cell deliverable, in pink with M_COVR in purple.

As stated above, the crosslines that were run to the actual 8 foot depths are displayed over charted land. During office processing, recent shoreline was obtained from National Geodetic Survey's Vector Shoreline site: http://www.ngs.noaa.gov/newsys_ims/shoreline/index.cfm.

Project LA0703B, Gulf Coast, Grand Terre Islands to Bastia Bay, LA, is dated 20091210 and completely covers survey H11807 area. A portion of this NGS project is included in the H-Cell deliverable as COALNE features as the NGS shoreline data has not been applied to the raster chart at this time. AHB recommends charting the NGS shoreline project in its entirety.

D.6 MISCELLANEOUS

Chart compilation was completed by Atlantic Hydrographic Branch personnel in Norfolk, Virginia. Compilation data will be forwarded to the Marine Chart Division in 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.7 ADEQUACY OF SURVEY

The present survey is adequate to supersede the charted bathymetry within the common area. Any features not specifically addressed either in the H-Cell files or the Blue Notes should be retained as charted. Refer to section D and Appendix I and II of the DR for further recommendations by the hydrographer.

APPROVAL SHEET H11807

Initial Approvals:

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

Katrina Wyllie
Physical Scientist
Atlantic Hydrographic Branch

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

Approved:

CDR Richard T. Brennan, NOAA Chief, Atlantic Hydrographic Branch