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H11384

NOAA FORM 76-35A U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SURVEY DESCRIPTIVE REPORT
Type of Survey: Basic Hydrographic Registry Number: H11384
LOCALITYState:MississippiGeneral Locality:Pascagoula BaySub-locality:Pascagoula River
2006 CHIEF OF PARTY Mark McMann, NRT1
LIBRARY & ARCHIVES DATE

NOAA FORM 77-28U.S. DEPARTMENT OF COMMERCE (11-72)NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION			REGISTRY NUMBER:
HYDROGRAPHIC TITLE SHEET			H11384
INSTRUCTIONS: The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.			FIELD NUMBER: Sheet A
State/Territory:	Mississippi		
General Locality:	Pascagoula Bay		
Sub-Locality:	Pascagoula River		
Scale:	1:10,000	Date of Su	urvey: January 11 – July 5, 2005
Instructions Dated:	November 19, 2004	Project N	umber: OPR-J376-NRT4
Vessel:	S1211, S3001		
Chief of Party:	Mark McMann		
Surveyed by:	MJM, LAM, EAL, JRM	I, JBW, SL	В
Soundings by:	echo sounder, hand lead	l, pole	
Graphic record scaled by:	MJM, LAM, EAL, JRM	I, JWB, SL	В
Graphic record checked by:	MJM, LAM, EAL, JRM	I	
Protracted by:	N/A	Automate	d Plot: HP-750C plus
Verification by:	Atlantic Hydrographic	Branch	
Soundings in:	Meters at MLLW		
Remarks: 1) All Times are UTC. 2) This is a Standard Navigable Area Hydrographic Survey. 3) Projection is UTM Zone 16. Bold, Italic, Red notes in the Descriptive Report were made during office processing.			

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DESCRIPTIVE REPORT to accompany Hydrographic Survey H11384

Scale of Survey: 1:10,000 Year of Survey: 2005 Navigation Response Team 1 - Launch 1211& Launch 3001 Mark J. McMann - Team Leader

A. AREA SURVEYED

This hydrographic survey was conducted in accordance with Hydrographic Port Instructions for project OPR-J376-NRT4-04, Pascagoula Bay, Mississippi. The instructions are dated November 19, 2004.

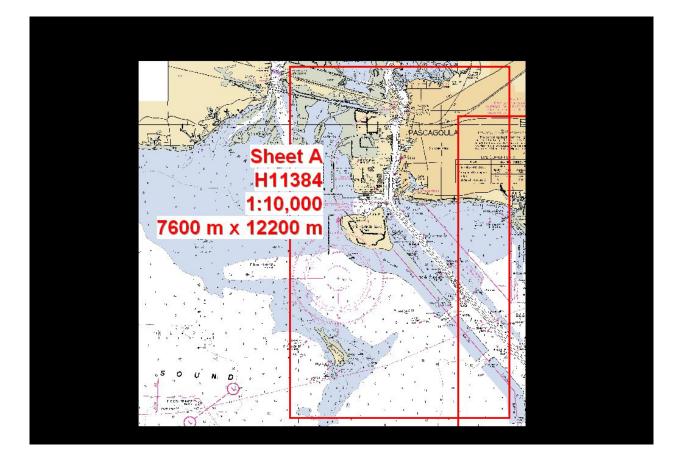
The Port of Pascagoula has been identified by MCD in 2004 as a priority major port ready for Chart Evaluation. Additionally, the U.S. Naval Station Port of Pascagoula is expanding its operations to accommodate larger vessels. Significant changes have occurred in the facilities and shoreline in Pascagoula Harbor both in the Pascagoula River Area and also the East Harbor.

Survey Limits for Sheet "A" H11384 are as follows:

North 30°23'06"N East 088°31'27" W South 30°16'30.5" N West 088°36'12" W

Survey Dates: January 11, 2005 (DN: 11) to (DN: July 5,2005 (186)

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



B. DATA ACQUISITION AND PROCESSING

B.1. EQUIPMENT

Data was acquired by Navigation Response Team 1, on board survey Launches 1211 and 3001. These vessels were configured as described in the Data Acquisition and Processing Report (DAPR) for this project. Major data acquisition systems are summarized below.

An Innerspace model 455 depth sounder was used on Launch 1211 to collect soundings on this survey. An Odom Echotrac C/V model depth sounder was used on Launch 3001 to collect echo soundings on this survey. A standard lead line calibrated in meters, S/N 1211, was used during this survey for comparison with the echo sounders. No problems were encountered with any of the sounding equipment.

Two Klein 3110 side scan sonar recorders with model 3210 towfish were used throughout this survey. The side scan sonar equipment was used to collect 200% bottom coverage and investigate AWOIS items.

Trimble DGPS Beacon Receivers were used as the primary navigation station on both Launch 1211 and Launch 3001.

A Trimble Pathfinder ProXRS (S/N 0224049380) and antenna (S/N 0220284585) were used for all ENC high accuracy positioning and establishment of calibration points.

A Seabird-Seacat Velocity Profiler model 19-03 (S/N 192276-0287) and an Odom Digibar S/N 98294-080904 were used for determining corrections for the speed of sound through the water column on launch 1211. An Odom Digibar S/N 98150-020205 was used on launch 3001.

NOAA launches 1211 and 3001, 27-foot SeaArks with drafts of 0.5 meters, were used to collect survey data. There were no unusual vessel configurations or problems encountered with these vessels.

B.2. QUALITY CONTROL

The integrity of the survey data for H11384 has been insured by following the Field Procedures Manual and the NOS Hydrographic Surveys Specifications and Deliverables Manual, June 2003.

The lead line for launches 1211 and 3001 was calibrated using a steel tape on April 4, 2003(DN:094). No corrections were necessary. A static draft of 0.5 meters was applied to the sounding plots by the Caris program. Launch 1211's draft was measured by subtracting the difference from a punch mark on the side of the Launch, 0.6 meter above the transducer, to the water surface. Launch 3001's draft was measured by the same method.

Settlement and squat measurements for launch 1211 were taken on April 4, 2003(DN:094) These measurements were conducted in New Orleans, LA on the Gulf Intracoastal Waterway using the level method. Settlement and squat correctors were applied to the sounding plots using the Caris program.

Settlement and squat measurements for launch 3001 were taken on September 22, 2004(DN:266) These measurements were conducted in Duluth, MN on Lake Superior using the level method. Settlement and squat correctors were applied to the sounding plots using the Caris program

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

Side Scan Sonar Quality Control

Daily confidence checks were conducted by observing side scan imagery in the vicinity of known contacts, such as buoys or sand waves. Side scan data were considered satisfactory if these contacts could be distinguished throughout the entire range of the side scan trace. The confidence checks were performed daily at both high and low frequency.

As water depth and/or hazards permitted, 200% bottom coverage was obtained wherever possible within the required survey areas and AWOIS item search radiuses. Side scan sonar coverage was conducted to the 12-foot depth curve and single beam reduced line spacing was performed in other areas where warranted. The towfish was deployed off the starboard quarter of the vessel, which proved very stable. All contacts and shadows were scaled and entered into Caris HIPS/SIPS to determine the height off the bottom. The significant contacts were then compared by position, as well as common depth and relationship to channels to determine if further investigations were needed. All areas surveyed were track line/swath line plotted to insure complete coverage.

The system frequencies used were 100kHz and 500 kHz. The recorder was set on one of either 50/75/100-meter range scales. There were no water depths greater than 20 meters.

When operating in shoaler waters (e.g. less than 30 meters deep), a short tow was required for the Klein system. When cable-out was approximately 7 meters or less, minor degradation of the side scan imagery and Innerspace echosounder traces were noted due to cross-talk between the two systems.

Crossline and mainscheme sounding data were compared using MAPINFO 5.1, with no significant discrepancies observed.

Junctions

There were no junction areas to compare.

B.3. CORRECTIONS TO ECHO SOUNDING

A table detailing all sound velocity casts is contained in Separates III* - Sound Velocity Profile Data. Sound velocity data has been submitted with the digital data package. Cast data is organized on the digital media as follows: vessel / day of cast / cast data. *Data Filed with Original Field Records

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

The instruments used for determining corrections for the speed of sound through the water column were a Seabird-Seacat Velocity Profiler and (2) Odom Digibars. All sound velocity probes were calibrated within the last 12 months. Data quality assurance tests were performed after each cast. Program VELOCWIN was used for computing the correctors. Corrections were applied to the sounding plot using the Caris HIPS.

Field tide reduction of soundings is based on actual unverified tides from the Internet NOAA Co-Ops site. The Dauphin Island, AL tidal gauge (873-5180) is the reference station for predicted tides. In addition, two thirty day gauges were installed, one at Horn Island (874-0405), and another at Pascagoula City Pier (874-1196). Values and correctors were applied at the perspective locations of Hydrography from the Zone files provided by CO-OPS/RDD. **

All elevations and soundings on survey H11384 are based on MLLW unless otherwise specified.

A Request for Approved Tides E-mail was sent to N/OPS1 on July 25, 2005. (Appendix IV*). *Data Filed with Original Field Records ** Approved tides and zoning were applied during field processing.

Horizontal Control

The horizontal datum used for this survey is the North American Datum of 1983 (NAD 83), projected using UTM zone 16.

Horizontal dilution of precision (HDOP) was monitored on Hypack daily. The value never exceeded 4.00, and adequate satellite coverage was maintained throughout the survey period. All positioning equipment was operated in a manner consistent with the manufacturer's requirements and as described in the DAPR. There were no equipment malfunctions which affected the positional quality of the data.

D. RESULTS AND RECOMMENDATIONS See also the Evaluation Report.

D.1. CHART COMPARISON

There are five charts affected by this survey:

<u>Chart Number</u>	Edition	Edition Date	<u>Next Planned Edition*</u>
11363	39th	September, 2003	September 1, 2006
11373	$43^{\rm rd}$	September, 2003	March 1, 2005
11374	32^{nd}	October, 2003	April 1, 2005
11375	35 th	August, 2002	June, 2005 *
11379	2^{nd}	December, 2002	July, 2005 *

There are three ENC cells affected by this survey:

ENC Cell	Last Updated	Corresponding Chart	Version
US4MS12M	09/29/04	11373	2
US5MS21M	08/13/04	11374	2
US5MS22M	10/26/04	11375	2

General Agreement with Charted soundings

In general survey soundings are in good agreement with the charted soundings with differences of 2-3 feet. The worst agreement is in the shallow areas (inside the charted 12 foot curve) with current survey soundings being 3-4 feet deeper than the charted soundings. *Concur.*

The following is a list of charted items that were investigated or disproved by 200% side scan sonar:

- 1.) A charted note "37 1/2 FT 2002" at Lat. 30° 21' 43" N, Lon. 88° 33' 58" W, was found to have a least depth of 40 feet. The hydrographer recommends removal of the note and charting of current survey soundings in the area. Current survey data supercedes charted data. *Do not concur, note was updated in 2007, retain note as charted.*
- 2.) A charted note "14 ½ FT 1996" at Lat 30° 21' 39"N, Lon. 88° 33' 52"W was found to have a least depth of 15 feet. The Hydrographer recommends removal of the note and charting of current survey soundings. *Do not concur, note was updated in 2007, retain note as charted.*
- 3.) A charted note "35 FT 2002" at Lat. 30° 21' 23"N, Lon. 88° 34' 02"W, was found to have a least depth of 39 feet. The hydrographer recommends removal of the note and charting of current survey soundings. *Do not concur, note was updated in 2007, retain note as charted.*
- 4.) A charted note "34 ½ FT 2002" at Lat. 30° 21' 10"N, Lon. 88° 34' 06"W, was found to have a least depth of 32 feet. The hydrographer recommends removal of the note and charting of current survey soundings. *Do not concur, update note to read 26 ft. rep 2005.*
- 5.) A charted note"34 ½ FT 2002" at Lat. 30° 20' 56"N, Lon. 88° 34' 06"W, was found to have a least depth of 39 feet. The hydrographer recommends removal of the note and charting of current survey soundings. Soundings were not collected along the bulkhead due to the constant presence of U.S. Navy Destroyer Class ships moored at Northrup Grumman Shipyard. *Do not concur, update note to read 39 ft. rep 2005.*
- 6.) A charted note "27 ½ FT 2002" at Lat. 30° 20' 58"N, Lon. 88°33'55"W, was found to have a least depth of 26 feet. The hydrographer recommends removal of the note and charting of current survey soundings. *Concur w/clarification, remove the charted note 26 ½ ft 2002-2005 and chart present survey soundings.*
- 7.) A charted note "30 FT 2002" at Lat. 30° 20' 50"N, Lon. 88° 33' 53"W, was not investigated due to the presence of U.S. Navy vessels and a boom enclosing the slip. *Concur, retain the charted note 30 ft 2002.*

- 8.) A charted note "9 FT" at Lat. 30°20' 44"N, Lon. 88° 33' 57"W, was found to have a least depth of 14 feet. The hydrographer recommends removal of the note and charting of current survey soundings. *Concur, remove the charted 9 ft 1984 and chart present survey soundings.*
- 9.) A charted note "34 FT 2002" at Lat. 30° 20' 38"N, 88° 34'19"W, was found to have a least depth of 37 feet. The hydrographer recommends removal of the note and charting of current survey soundings. *Do not concur, update note to read 37 ft. rep 2002.*
- 10.) A charted note "35 FT 1998" at Lat. 30° 20' 33"N, 88° 34' 35"W, was found to have a least depth of 61 feet. The hydrographer recommends removal of the note and charting current survey soundings. *Do not concur, update note to read 56 ft. rep 2005 and extend limits to shoreline.*
- 11.) A charted note "Shoaling rep 1986" at Lat. 30° 18' 24"N, 88° 32' 49"W, was investigated with single beam echosounder and depths were found to be 5-8 feet. The hydrographer recommends removal of the note and charting current survey soundings. *Concur, remove the note Shoaling rep 1986 and chart present survey soundings.*

AWOIS Item Investigations

There were thirteen AWOIS item within the survey limits. All thirteen of the items were within the limits of hydrography, and were resolved during main scheme operations. None of the features were found, and most were covered by 200% side scan sonar coverage. *See also Features Report, Appendix 1.*

Dangers to Navigation

There were no Dangers to Navigation reported on H11384. Concur.

D. 2. ADDITIONAL RESULTS

Aids to Navigation and Other Detached Positions

All Navigation Aids serve their intended purpose. Concur.

All floating aids were positioned by the survey vessel and are on station. *Concur.*

Ferry Routes

There are no Ferry routes within the confines of H11384. *Concur.*

APPROVAL SHEET

OPR-J376-NRT4-04 Gulf of Mexico Pascagoula Bay Survey Registry No. H-11384

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

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

Submitted: Male Miz Mark J. McMann - Team Leader

Navigation Response Team 1

APPENDIX I: Features Report - survey H11384

The following are the reports for all Charted & Uncharted Features and AWOIS Items

H11384 Features Report

Registry Number:	H11384
State:	Mississippi
Locality:	Mississippi Sound
Sub-locality:	Upper Pascagoula Channel to Krebs Lake
Project Number:	OPR-J376-NRT4-04
Survey Dates:	01/11/2005 - 03/11/2009

Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
11375	36th	01/01/2005	1:20,000 (11375_1)	[L]NTM: ?
11374	32nd	10/01/2003	1:40,000 (11374_2)	[L]NTM: ?
11373	47th	10/01/2008	1:80,000 (11373_1)	USCG LNM: 02/10/2009 (02/10/2009) NGA NTM: 02/14/2009 (02/14/2009)
11366	9th	03/01/2005	1:250,000 (11366_1)	[L]NTM: ?
11360	41st	03/01/2005	1:456,394 (11360_1)	[L]NTM: ?
1115A	41st	03/01/2005	1:456,394 (1115A_1)	[L]NTM: ?
11006	31st	09/01/2003	1:875,000 (11006_1)	[L]NTM: ?
411	49th	03/01/2003	1:2,160,000 (411_1)	[L]NTM: ?

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

Features

No.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	4485/1 - add subm Dol	Dolphin	8.05 m	30° 21' 14.3" N	088° 34' 00.7" W	
1.2	194/1 Awois 12583 - subm pile	Pile	2.53 m	30° 19' 20.5" N	088° 32' 47.9" W	
1.3	124/1 - add subm pile	Pile	2.03 m	30° 22' 32.9" N	088° 33' 41.4" W	
1.4	257/1 - add subm pile	Pile	5.09 m	30° 22' 16.0" N	088° 33' 46.8" W	
1.5	469/1- add subm pile	Pile	4.58 m	30° 22' 15.0" N	088° 33' 44.1" W	
1.6	334/1 - add subm pile	Pile	5.29 m	30° 22' 15.5" N	088° 33' 45.8" W	
1.7	140/1 - charted dang. 15 Obstn	Obstruction	4.55 m	30° 21' 13.3" N	088° 33' 54.7" W	
1.8	0003 - add an Obstn (foul area)	Obstruction	[None]	30° 22' 17.3" N	088° 33' 44.9" W	
1.9	add a dolphin	Dolphin	4.40 m	30° 22' 31.0" N	088° 33' 40.5" W	

1.10	add a dolphin	Dolphin	4.66 m	30° 22' 30.3" N	088° 33' 40.5" W	
1.11	add pier	Shoal	5.48 m	30° 22' 05.7" N	088° 33' 54.3" W	
1.12	DP 3948 - revise charted private buoy R "4"	Marker (privately maintained)	1.82 m	30° 18' 29.7" N	088° 32' 32.0" W	
1.13	177/1 - add subm pile	Pile	4.65 m	30° 22' 37.5" N	088° 33' 50.9" W	
1.14	290/1 - add 11 Obstn	Obstruction	3.41 m	30° 22' 31.2" N	088° 33' 40.7" W	
1.15	235/1 - dang. 2 Obstn	Obstruction	2.29 m	30° 20' 28.5" N	088° 34' 16.6" W	
1.16	0001 - add subm pile	Pile	[None]	30° 20' 22.8" N	088° 33' 59.2" W	
1.17	0002 - subm rail ruins	Obstruction	[None]	30° 21' 09.2" N	088° 33' 54.2" W	
1.18	0003 - subm rail ruins	Obstruction	[None]	30° 21' 12.3" N	088° 33' 53.1" W	
1.19	0004 - subm rail ruins	Obstruction	[None]	30° 21' 13.8" N	088° 33' 52.6" W	
1.20	0005 - subm rail ruins	Obstruction	[None]	30° 21' 10.7" N	088° 33' 53.7" W	
1.21	3250/1 - add subm piling	Pile	3.92 m	30° 22' 20.7" N	088° 33' 42.8" W	
1.22	177/1 add subm pile	Shoal	4.65 m	30° 22' 37.5" N	088° 33' 50.9" W	
1.23	2427/1 - revise charted subm pile	Pile	5.41 m	30° 22' 18.2" N	088° 33' 47.3" W	
1.24	0002 - subm rail ruins	Obstruction	[None]	30° 21' 05.6" N	088° 33' 57.6" W	
1.25	0001 - add Dol	Dolphin	[None]	30° 21' 16.5" N	088° 34' 00.4" W	
1.26	29/1 - add subm pile	Pile	4.24 m	30° 22' 31.2" N	088° 33' 41.4" W	
2.1	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	
2.2	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	
2.3	UNKNOWN	AWOIS	[no data]	[no data]	[no data]	
2.4	UNKNOWN	AWOIS	[no data]	[no data]	[no data]	
2.5	UNKNOWN	AWOIS	[no data]	[no data]	[no data]	
2.6	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	
2.7	UNKNOWN	AWOIS	[no data]	[no data]	[no data]	
2.8	GEE BEE	AWOIS	[no data]	[no data]	[no data]	
2.9	UNKNOWN - delete Pile PA, chart Pile	AWOIS	[no data]	[no data]	[no data]	
2.10	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	
2.11	UNKNOWN	AWOIS	[no data]	[no data]	[no data]	
2.12	ONE SICK ONE	AWOIS	[no data]	[no data]	[no data]	
2.13	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	
2.14	SHARON KAY	AWOIS	[no data]	[no data]	[no data]	
2.15	UNKNOWN	AWOIS	[no data]	[no data]	[no data]	
2.16	UNKNOWN	AWOIS	[no data]	[no data]	[no data]	
2.17	OBSTRUCTION - Revise position	AWOIS	[no data]	[no data]	[no data]	

1 - New Features

1.1) 4485/1 - add Dol

Survey Summary

Survey Position:	30° 21' 14.3" N, 088° 34' 00.7" W
Least Depth:	8.05 m (= 26.43 ft = 4.405 fm = 4 fm 2.43 ft)
TPU (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2005-011.19:31:57.110 (01/11/2005)
Survey Line:	h11384 / 1211sb / 2005-011 / 009_1922
Profile/Beam:	4485/1
Charts Affected:	11375_1, 11374_2, 11373_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Subm pile located 5 m S of charted Subm pile

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11384/1211sb/2005-011/009_1922	4485/1	0.00	000.0	Primary
h11384/1211sss500k/2005-019/p050119184500	0002	2.46	138.2	Secondary
h11384/3001dp_non_echosounder/2005-186/dn186	8/1	17.50	178.2	Secondary

Hydrographer Recommendations

Retain as charted.

Cartographically-Rounded Depth (Affected Charts):

26ft (11375_1, 11374_2, 11373_1)

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

S-57 Data

Geo object 1: Mooring/warping facility (MORFAC)

Attributes: CATMOR - 1:dolphin

Concur w/clarification. Chart a Dol in Latitude 30°21'14.694"N, Longitude 88°34'00.797"W.

1.2) 194/1 Awois 12583 - subm pile

Survey Summary

Survey Position:	30° 19' 20.5" N, 088° 32' 47.9" W
Least Depth:	2.53 m (= 8.30 ft = 1.384 fm = 1 fm 2.30 ft)
TPU (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2005-102.16:00:14.391 (04/12/2005)
Survey Line:	h11384 / 1211sb / 2005-102 / 120_1559
Profile/Beam:	194/1
Charts Affected:	11375_1, 11374_2, 11373_1, 11366_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

R LT "46: w Ra ref exp 4m Retain as charted.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11384/1211sb/2005-102/120_1559	194/1	0.00	000.0	Primary
h11384/1211dp_non_echosounder/2005-123/dn123	14/1	3.32	114.8	Secondary
h11384/1211sss500k/2005-011/p050111155700	0001	4.02	188.8	Secondary
h11384/1211sss500k/2005-011/p050111155700	0001	4.02	188.8	Secondary

Hydrographer Recommendations

Recommend charting subm pile at 30°19'20.525", -088°32'47.905". Remove the previously charted pile PA.

Cartographically-Rounded Depth (Affected Charts):

8ft (11375_1, 11374_2, 11373_1) 1 ¼fm (1115A_1, 11360_1, 11006_1, 411_1) 1fm 2ft (11366_1)

S-57 Data

Geo object 1: Pile (PILPNT) Attributes: CATPLE - 3:post CONVIS - 2:not visual conspicuous INFORM - add a subm pile

Concur. Chart a subm pile in Latitude 30°19'20.525"N, Longitude 88°32'47.905"W.

1.3) 124/1 - add subm pile

Survey Summary

Survey Position:	30° 22' 32.9" N, 088° 33' 41.4" W
Least Depth:	2.03 m (= 6.66 ft = 1.111 fm = 1 fm 0.66 ft)
TPU (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2005-104.18:39:28.735 (04/14/2005)
Survey Line:	h11384 / 1211sb / 2005-104 / 007_1839
Profile/Beam:	124/1
Charts Affected:	11374_2, 11373_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

ht=2.5m. possibly old wood pile in ruins

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11384/1211sb/2005-104/007_1839	124/1	0.00	000.0	Primary
h11384/1211dp_non_echosounder/2005-104/dn104	24/1	0.21	071.5	Secondary
h11384/3001dp_non_echosounder/2005-186/dn186	3/1	1.94	156.6	Secondary
h11384/1211sss500k/2005-011/p050111181700	0001	41.15	026.2	Secondary

Hydrographer Recommendations

Add subm pile to chart.

Cartographically-Rounded Depth (Affected Charts):

6ft (11374_2, 11373_1) 1fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

Geo object 1: Pile (PILPNT) Attributes: CATPLE - 3:post CONVIS - 2:not visual conspicuous INFORM - add a subm pile

Concur. Chart a subm pile in Latitude 30°22'31.353"N, Longitude 88°33'41.919"W.

1.4) 257/1 - add subm pile

Survey Summary

Survey Position:	30° 22' 16.0" N, 088° 33' 46.8" W
Least Depth:	5.09 m (= 16.70 ft = 2.783 fm = 2 fm 4.70 ft)
TPU (±1.96σ):	THU (TPEh) ±-1.000 m ; TVU (TPEv) ±-1.000 m
Timestamp:	2005-104.17:29:40.635 (04/14/2005)
Survey Line:	h11384 / 1211sb / 2005-104 / 029_1729
Profile/Beam:	257/1
Charts Affected:	11375_1, 11374_2, 11373_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Sumb pile at 30.37139396, -088.56270679

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11384/1211sb/2005-104/029_1729	257/1	0.00	000.0	Primary
h11384/1211sb/2005-104/029_1729	258/1	0.44	296.5	Secondary (grouped)
h11384/1211dp_non_echosounder/2005-104/dn104	22/1	8.60	295.6	Secondary (grouped)

Hydrographer Recommendations

Retain as charted.

Cartographically-Rounded Depth (Affected Charts):

16ft (11375_1, 11374_2, 11373_1)

2 ³/₄fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

Geo object 1:	Pile (PILPNT)
Attributes:	CATPLE - 3:post
	CONVIS - 2:not visual conspicuous
	INFORM - add a subm pile

Concur. Chart a subm pile in Latitude 30°22'16.017"N, Longitude 88°33'46.764"W.

1.5) 469/1- add subm pile

Survey Summary

Survey Position:	30° 22' 15.0" N, 088° 33' 44.1" W
Least Depth:	4.58 m (= 15.03 ft = 2.505 fm = 2 fm 3.03 ft)
TPU (±1.96σ):	THU (TPEh) ±-1.000 m ; TVU (TPEv) ±-1.000 m
Timestamp:	2005-104.17:30:08.477 (04/14/2005)
Survey Line:	h11384 / 1211sb / 2005-104 / 029_1729
Profile/Beam:	469/1
Charts Affected:	11375_1, 11374_2, 11373_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Surveyed w/ 200% SSS and SBES.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11384/1211sb/2005-104/029_1729	469/1	0.00	000.0	Primary
h11384/1211dp_non_echosounder/2005-104/dn104	23/1	6.07	278.4	Secondary

Hydrographer Recommendations

Retain as charted.

Cartographically-Rounded Depth (Affected Charts):

15ft (11375_1, 11374_2, 11373_1) 2 ½fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

Geo object 1: Pile (PILPNT)

Attributes: CATPLE - 3:post CONVIS - 2:not visual conspicuous INFORM - add a subm pile

Do not concur, nothing charted to be retained. Chart a subm pile in Latitude 30°22'14.970"N, Longitude 88°33'44.055"W.

1.6) 334/1 - add subm pile

Survey Summary

Survey Position:	30° 22' 15.5" N, 088° 33' 45.8" W
Least Depth:	5.29 m (= 17.36 ft = 2.893 fm = 2 fm 5.36 ft)
TPU (±1.96σ):	THU (TPEh) ±-1.000 m ; TVU (TPEv) ±-1.000 m
Timestamp:	2005-104.17:29:50.750 (04/14/2005)
Survey Line:	h11384 / 1211sb / 2005-104 / 029_1729
Profile/Beam:	334/1
Charts Affected:	11375_1, 11374_2, 11373_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11384/1211sb/2005-104/029_1729	334/1	0.00	000.0	Primary

Hydrographer Recommendations

Cartographically-Rounded Depth (Affected Charts):

17ft (11375_1, 11374_2, 11373_1) 2 ³/4fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

Geo object 1: Pile (PILPNT)

Attributes: CATPLE - 3:post

CONVIS - 2:not visual conspicuous

INFORM - add a subm pile

Office Notes

Chart a subm pile in Latitude 30°22'15.534"N, Longitude 88°33'45.810"W.

1.7) 140/1 - charted dang. 15 Obstn

Survey Summary

Survey Position:	30° 21' 13.3" N, 088° 33' 54.7" W
Least Depth:	4.55 m (= 14.94 ft = 2.490 fm = 2 fm 2.94 ft)
TPU (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2005-104.16:16:56.972 (04/14/2005)
Survey Line:	h11384 / 1211sb / 2005-104 / 050_1616
Profile/Beam:	140/1
Charts Affected:	11375_1, 11374_2, 11373_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Unknown contact

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11384/1211sb/2005-104/050_1616	140/1	0.00	000.0	Primary
h11384/1211dp_non_echosounder/2005-104/dn104	15/1	0.43	101.3	Secondary (grouped)
h11384/1211sss500k/2005-068/p050309190000	0001	11.14	020.3	Secondary (grouped)

Hydrographer Recommendations

Hydrographer recommends adding to chart.

Cartographically-Rounded Depth (Affected Charts):

15ft (11375_1, 11374_2, 11373_1)

2 ¹/₂fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN) Attributes: QUASOU - 6:least depth known STATUS - 1:permanent TECSOU - 1,2:found by echo-sounder,found by side scan sonar VALSOU - 4.554 m VERDAT - 12:Mean lower low water WATLEV - 3:always under water/submerged

Office Notes

Concur w/clarification. Retain dang. 15 Obstn as currently charted.

1.8) 0003 - add an Obstn (foul area)

Survey Summary

Survey Position:	30° 22' 17.3" N, 088° 33' 44.9" W
Least Depth:	[None]
TPU (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2009-070.05:21:55 (03/11/2009)
Survey Line:	h11384 / 1211sss500k / 2005-019 / p050119182900
Contact/Point:	0003/1
Charts Affected:	11375_1, 11374_2, 11373_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Feature Correlation

Address	Feature	Range	Azimuth	Status	
h11384/1211sss500k/2005-019/p050119182900	0003	0.00	000.0	Primary	

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Obstruction (OBSTRN)
Attributes:	CATOBS - 6:foul area
	QUASOU - 2:depth unknown
	STATUS - 1:permanent
	TECSOU - 2: found by side scan sonar
	VERDAT - 12:Mean lower low water
	WATLEV - 3:always under water/submerged

Office Notes

Chart an Obstn (foul area) area with limits including all new subm piles in the current survey.

1.9) add a dolphin

Survey Summary

Survey Position:	30° 22' 31.0" N, 088° 33' 40.5" W
Least Depth:	4.40 m (= 14.43 ft = 2.405 fm = 2 fm 2.43 ft)
TPU (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2005-186.16:21:17.000 (07/05/2005)
DP Dataset:	h11384 / 3001dp_non_echosounder / 2005-186 / dn186
Profile/Beam:	4/1
Charts Affected:	11374_2, 11373_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Subm pile

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11384/3001dp_non_echosounder/2005-186/dn186	4/1	0.00	000.0	Primary
h11384/1211sss500k/2005-011/p050111181300	0001	8.46	136.7	Secondary
h11384/1211sss500k/2005-011/p050111181300	0001	23.90	118.3	Secondary

Hydrographer Recommendations

Add subm pile at 30.37528090, -088.56125228

Cartographically-Rounded Depth (Affected Charts):

14ft (11374_2, 11373_1)

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

S-57 Data

Geo object 1: Mooring/warping facility (MORFAC)

Attributes: CATMOR - 1:dolphin

STATUS - 1:permanent

Concur w/clarification. Chart a Dol in Latitude 30°22'31.003"N, Longitude 88°33'40.190"W.

1.10) add a dolphin

Survey Summary

Survey Position:	30° 22' 30.3" N, 088° 33' 40.5" W
Least Depth:	4.66 m (= 15.29 ft = 2.548 fm = 2 fm 3.29 ft)
TPU (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2005-186.16:22:07.000 (07/05/2005)
DP Dataset:	h11384 / 3001dp_non_echosounder / 2005-186 / dn186
Profile/Beam:	5/1
Charts Affected:	11374_2, 11373_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Exposed 5m, dry dock in ruins

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11384/3001dp_non_echosounder/2005-186/dn186	5/1	0.00	000.0	Primary

Hydrographer Recommendations

Extend dry dock to 30.37508025, -088.56126116.

Cartographically-Rounded Depth (Affected Charts):

15ft (11374_2, 11373_1) 2 ½fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

Geo object 1: Mooring/warping facility (MORFAC)

Attributes: CATMOR - 1:dolphin

INFORM - Exposed 5m, dry dock in ruins

Office Notes

Concur w/clarification. Chart a Dol in Latitude 30°22'30.140"N, Longitude 88°33'40.207"W.

1.11) add pier

Survey Summary

Survey Position:	30° 22' 05.7" N, 088° 33' 54.3" W
Least Depth:	5.48 m (= 17.97 ft = 2.994 fm = 2 fm 5.97 ft)
TPU (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2005-186.16:24:59.000 (07/05/2005)
DP Dataset:	h11384 / 3001dp_non_echosounder / 2005-186 / dn186
Profile/Beam:	6/1
Charts Affected:	11375_1, 11374_2, 11373_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Offshore end of steel pier. Exposed 3 m

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11384/3001dp_non_echosounder/2005-186/dn186	6/1	0.00	000.0	Primary

Hydrographer Recommendations

Extend inshore pier to loaction: 30.36824229, -088.56508674

Cartographically-Rounded Depth (Affected Charts):

18ft (11375_1, 11374_2, 11373_1) 3fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

Geo object 1: Shoreline Construction (SLCONS)

Attributes: CATSLC - 4:pier (jetty) NATCON - 7:metal

STATUS - 1:permanent

Pier is missing from the chart, chart a pier and recommend area be surveyed with modern photogrammetry to update shoreline and shoreline features.

1.12) DP 3948 - revise charted private buoy R "4"

Survey Summary

Survey Position:	30° 18' 29.7" N, 088° 32' 32.0" W
Least Depth:	1.82 m (= 5.97 ft = 0.995 fm = 0 fm 5.97 ft)
TPU (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2005-123.17:34:10.000 (05/03/2005)
DP Dataset:	h11384 / 1211dp_non_echosounder / 2005-123 / dn123
Profile/Beam:	18/1
Charts Affected:	11375_1, 11374_2, 11373_1, 11366_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

R DBN "4" PRIV MAINT exp 3m

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11384/1211dp_non_echosounder/2005-123/dn123	18/1	0.00	000.0	Primary

Hydrographer Recommendations

Move R'4' private maintained to surveyed location. 30.30823991, -088.54221599

Cartographically-Rounded Depth (Affected Charts):

6ft (11375_1, 11374_2, 11373_1) 1fm (1115A_1, 11360_1, 11006_1, 411_1) 1fm 0ft (11366_1)

S-57 Data

```
Geo object 1: Beacon, lateral (BCNLAT)

Attributes: HEIGHT - 3 m

INFORM - R DBN "4" PRIV MAINT exp 3m

OBJNAM - R DBN '4'

STATUS - 1:permanent

VERDAT - 12:Mean lower low water
```

Concur, revise charted private buoy R "4" to Latitude 30°18'29.664"N, Longitude 88°32'31.978"W.

1.13) 177/1 - add subm pile

Survey Summary

Survey Position:	30° 22' 37.5" N, 088° 33' 50.9" W
Least Depth:	4.65 m (= 15.25 ft = 2.541 fm = 2 fm 3.25 ft)
TPU (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2005-104.18:32:32.652 (04/14/2005)
Survey Line:	h11384 / 1211sb / 2005-104 / 003_1832
Profile/Beam:	177/1
Charts Affected:	11374_2, 11373_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Subm obstruction. Investigated w/ 200% SSS and SBES.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11384/1211sb/2005-104/003_1832	177/1	0.00	000.0	Primary
h11384/1211sss500k/2005-019/p050119182900	0002	2.24	093.4	Secondary
h11384/1211sss500k/2005-019/p050119182900	0002	2.24	093.4	Secondary

Hydrographer Recommendations

Cartographically-Rounded Depth (Affected Charts):

15ft (11374_2, 11373_1) 2 ½fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

Geo object 1: Pile (PILPNT)

Attributes: CATPLE - 3:post CONVIS - 2:not visual conspicuous INFORM - add a subm pile

Chart a subm pile in Latitude 30°22'37.480"N, Longitude 88°33'50.872"W.

1.14) 290/1 - add 11 Obstn

Survey Summary

Survey Position:	30° 22' 31.2" N, 088° 33' 40.7" W
Least Depth:	3.41 m (= 11.20 ft = 1.867 fm = 1 fm 5.20 ft)
TPU (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2005-011.19:05:18.389 (01/11/2005)
Survey Line:	h11384 / 1211sb / 2005-011 / 003_1904
Profile/Beam:	290/1
Charts Affected:	11374_2, 11373_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Subm pile

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11384/1211sb/2005-011/003_1904	290/1	0.00	000.0	Primary

Hydrographer Recommendations

Add subm pile at 30.37528090, -088.56125228

Cartographically-Rounded Depth (Affected Charts):

11ft (11374_2, 11373_1) 1 ³/₄fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

Geo object 1:	Obstruction (OBSTRN)
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Attributes:	NATCON - 6:wooden
	QUASOU - 6:least depth known
	STATUS - 1:permanent
	TECSOU - 1,2: found by echo-sounder, found by side scan sonar
	VALSOU - 3.414 m
	VERDAT - 12:Mean lower low water
	WATLEV - 3:always under water/submerged

Do not concur, chart a dangerous Obstn with a depth of 11 ft. in Latitude 30°22'31.152"N, Longitude 88°33'40.725"W.

1.15) 235/1 - dang. 2 Obstn

Survey Summary

Survey Position:	30° 20' 28.5" N, 088° 34' 16.6" W
Least Depth:	2.29 m (= 7.50 ft = 1.250 fm = 1 fm 1.50 ft)
TPU (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2005-102.18:44:34.647 (04/12/2005)
Survey Line:	h11384 / 1211sb / 2005-102 / 071_1844
Profile/Beam:	235/1
Charts Affected:	11375_1, 11374_2, 11373_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Subm conex box (Marine transportation unit.)

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11384/1211sb/2005-102/071_1844	235/1	0.00	000.0	Primary
h11384/1211sss500k/2005-068/p050309202300	0001	7.48	102.2	Secondary
h11384/1211sss500k/2005-068/p050309202300	0001	7.48	102.2	Secondary

Hydrographer Recommendations

Add subm. obstr to chart.

Cartographically-Rounded Depth (Affected Charts):

7ft (11375_1, 11374_2, 11373_1)

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

S-57 Data

Geo object 1: Obstruction (OBSTRN) Attributes: NATCON - 7:metal QUASOU - 1:depth known STATUS - 18:existence doubtful TECSOU - 1,2:found by echo-sounder,found by side scan sonar VALSOU - 2.286 m WATLEV - 4:covers and uncovers

Office Notes

Concur w/clarification. A conex box would have dimensions of 10x10x40 feet and depths from single beam are 0.562m (1.8 ft) which would make this obstn baring at MLLW. No obstn is visible in USGS satellite imagery from 2007. Recommend charting an Obstn with a depth of 2 ft in Latitude 30°20'28.125"N, Longitude 88°34'17.249"W. Recommend this Obstn be added to the AWOIS database and flagged for follow-up investigation to verify its existance.

1.16) 0001 - add subm pile

Survey Summary

Survey Position:	30° 20' 22.8" N, 088° 33' 59.2" W
Least Depth:	[None]
TPU (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2009-064.04:32:45 (03/05/2009)
Survey Line:	h11384 / 1211sss500k / 2005-019 / p050119164300
Contact/Point:	0001/1
Charts Affected:	11375_1, 11374_2, 11373_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11384/1211sss500k/2005-019/p050119164300	0001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Pile (PILPNT)
Attributes:	CATPLE - 3:post
	CONVIS - 2:not visual conspicuous
	INFORM - add a subm pile

Office Notes

Chart a Subm pile in Latitude 30°20'22.845"N, Longitude 88°33'59.166"W.

1.17) 0002 - subm rail ruins

Survey Summary

Survey Position:	30° 21' 09.2" N, 088° 33' 54.2" W
Least Depth:	[None]
TPU (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2009-069.06:48:00 (03/10/2009)
Survey Line:	h11384 / 1211sss500k / 2005-068 / p050309190000
Contact/Point:	0002/1
Charts Affected:	11375_1, 11374_2, 11373_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11384/1211sss500k/2005-068/p050309190000	0002	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Obstruction (OBSTRN)
Attributes:	CATOBS - 6:foul area
	CONDTN - 2:ruined
	NATCON - 7:metal
	STATUS - 1:permanent
	TECSOU - 2: found by side scan sonar
	WATLEV - 3:always under water/submerged
Geo object 2:	Shoreline Construction (SLCONS)
Attributes:	INFORM - add subm rail line (ruins)

End point of subm rail line (ruins), add subm railway (ruins) update charted Obstn (foul area) limits

1.18) 0003 - subm rail ruins

Survey Summary

Survey Position:	30° 21' 12.3" N, 088° 33' 53.1" W
Least Depth:	[None]
TPU (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2009-069.06:48:15 (03/10/2009)
Survey Line:	h11384 / 1211sss500k / 2005-068 / p050309190000
Contact/Point:	0003/1
Charts Affected:	11375_1, 11374_2, 11373_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11384/1211sss500k/2005-068/p050309190000	0003	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Obstruction (OBSTRN)
Attributes:	CATOBS - 6:foul area
	CONDTN - 2:ruined
	NATCON - 7:metal
	STATUS - 1:permanent
	TECSOU - 2: found by side scan sonar
	WATLEV - 3:always under water/submerged
Geo object 2:	Shoreline Construction (SLCONS)
Attributes:	INFORM - add subm rail line (ruins)

End point of subm rail line (ruins), add subm railway (ruins) update charted Obstn (foul area) limits

1.19) 0004 - subm rail ruins

Survey Summary

Survey Position:	30° 21' 13.8" N, 088° 33' 52.6" W
Least Depth:	[None]
TPU (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2009-069.06:48:44 (03/10/2009)
Survey Line:	h11384 / 1211sss500k / 2005-068 / p050309190000
Contact/Point:	0004/1
Charts Affected:	11375_1, 11374_2, 11373_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11384/1211sss500k/2005-068/p050309	190000 0004	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Obstruction (OBSTRN)
Attributes:	CATOBS - 6: foul area
	CONDTN - 2:ruined
	STATUS - 1:permanent
	TECSOU - 2: found by side scan sonar
	WATLEV - 3:always under water/submerged
Geo object 2:	Shoreline Construction (SLCONS)
Attributes:	INFORM - add subm rail line (ruins)

Office Notes

End point of subm rail line (ruins), add subm railway (ruins) update charted Obstn (foul area) limits

1.20) 0005 - subm rail ruins

Survey Summary

Survey Position:	30° 21' 10.7" N, 088° 33' 53.7" W
Least Depth:	[None]
TPU (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2009-069.06:48:59 (03/10/2009)
Survey Line:	h11384 / 1211sss500k / 2005-068 / p050309190000
Contact/Point:	0005/1
Charts Affected:	11375_1, 11374_2, 11373_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11384/1211sss500k/2005-068/p050309190000	0005	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Obstruction (OBSTRN)
Attributes:	CATOBS - 6: foul area
	CONDTN - 2:ruined
	NATCON - 7:metal
	STATUS - 1:permanent
	TECSOU - 2: found by side scan sonar
	WATLEV - 3:always under water/submerged
Geo object 2:	Shoreline Construction (SLCONS)
Attributes:	INFORM - add subm rail line (ruins)

End point of subm rail line (ruins), add subm railway (ruins) update charted Obstn (foul area) limits

1.21) 3250/1 - add subm piling

Survey Summary

Survey Position:	30° 22' 20.7" N, 088° 33' 42.8" W
Least Depth:	3.92 m (= 12.86 ft = 2.143 fm = 2 fm 0.86 ft)
TPU (±1.96σ):	THU (TPEh) ±-1.000 m ; TVU (TPEv) ±-1.000 m
Timestamp:	2005-011.18:57:32.627 (01/11/2005)
Survey Line:	h11384 / 1211sb / 2005-011 / 002_1850
Profile/Beam:	3250/1
Charts Affected:	11375_1, 11374_2, 11373_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11384/1211sb/2005-011/002_1850	3250/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

13ft (11375_1, 11374_2, 11373_1) 2fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

Geo object 1: Pile (PILPNT)

Attributes: CATPLE - 3:post CONVIS - 2:not visual conspicuous INFORM - add a subm piling

Chart a subm piling in Latitude 30°22'20.664"N, Longitude 88°33'42.829"W.

1.22) 177/1 - add subm pile

Survey Summary

Survey Position:	30° 22' 37.5" N, 088° 33' 50.9" W
Least Depth:	4.65 m (= 15.25 ft = 2.541 fm = 2 fm 3.25 ft)
TPU (±1.96σ):	THU (TPEh) ±-1.000 m ; TVU (TPEv) ±-1.000 m
Timestamp:	2005-104.18:32:32.652 (04/14/2005)
Survey Line:	h11384 / 1211sb / 2005-104 / 003_1832
Profile/Beam:	177/1
Charts Affected:	11374_2, 11373_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Subm obstruction. Investigated w/ 200% SSS and SBES.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11384/1211sb/2005-104/003_1832	177/1	0.00	000.0	Primary
h11384/1211sss500k/2005-019/p050119182900	0002	2.24	093.4	Secondary
h11384/1211sss500k/2005-019/p050119182900	0002	2.24	093.4	Secondary

Hydrographer Recommendations

Add subm pile to chart.

Cartographically-Rounded Depth (Affected Charts):

15ft (11374_2, 11373_1) 2 ½fm (1115A 1, 11360 1, 11006 1, 411 1)

S-57 Data

[None]

Office Notes

Concur, chart a subm pile in Latitude 30°22'37.480"N, Longitude 88°33'50.872"W.

1.23) 2427/1 - revise charted subm pile

Survey Summary

Survey Position:	30° 22' 18.2" N, 088° 33' 47.3" W
Least Depth:	5.41 m (= 17.75 ft = 2.959 fm = 2 fm 5.75 ft)
TPU (±1.96σ):	THU (TPEh) ±-1.000 m ; TVU (TPEv) ±-1.000 m
Timestamp:	2005-019.19:17:26.942 (01/19/2005)
Survey Line:	h11384 / 1211sb / 2005-019 / 020_1912
Profile/Beam:	2427/1
Charts Affected:	11375_1, 11374_2, 11373_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Subm pile. Retain as charted.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11384/1211sb/2005-019/020_1912	2427/1	0.00	000.0	Primary

Hydrographer Recommendations

Retain as charted.

Cartographically-Rounded Depth (Affected Charts):

18ft (11375_1, 11374_2, 11373_1) 3fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

Geo object 1: Pile (PILPNT)

Attributes: CATPLE - 3:post CONVIS - 2:not visual conspicuous INFORM - revise subm pile

Concur, revise charted subm pile to Latitude 30°22'18.210"N, Longitude 88°33'47.337"W.

1.24) 0002 - subm rail ruins

Survey Summary

Survey Position:	30° 21' 05.6" N, 088° 33' 57.6" W
Least Depth:	[None]
TPU (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2009-069.06:05:40 (03/10/2009)
Survey Line:	h11384 / 1211sss500k / 2005-019 / p050119193500
Contact/Point:	0002/1
Charts Affected:	11375_1, 11374_2, 11373_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Southern offshore end of railway.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11384/1211sss500k/2005-019/p050119193500	0002	0.00	000.0	Primary

Hydrographer Recommendations

Add Sub railway to chart.

S-57 Data

- **Geo object 1:** Obstruction (OBSTRN)
- Attributes: CATOBS 6:foul area

CONDTN - 2:ruined

NATCON - 7:metal

- STATUS 1:permanent
- TECSOU 2: found by side scan sonar
- WATLEV 3:always under water/submerged
- Geo object 2: Shoreline Construction (SLCONS)
- Attributes: INFORM add subm rail line (ruins)

End point of subm rail line (ruins), add subm railway (ruins) and update charted Obstn (foul area) limits

1.25) 0001 - add Dol

Survey Summary

Survey Position:	30° 21' 16.5" N, 088° 34' 00.4" W
Least Depth:	[None]
TPU (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2009-069.06:24:04 (03/10/2009)
Survey Line:	h11384 / 1211sss500k / 2005-019 / p050119184500
Contact/Point:	0001/1
Charts Affected:	11375_1, 11374_2, 11373_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Feature Correlation

Address	Feature	Range	Azimuth	Status	_
h11384/1211sss500k/2005-019/p050119184500	0001	0.00	000.0	Primary	

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Mooring/warping	facility (MORFAC)
000 00 jeee 10		

Attributes: CATMOR - 1:dolphin

Office Notes

Verified location of DP taken on steel caisson, chart a Dol in Latitude 30°21'16.605"N, Longitude 88°34'00.355"W.

1.26) 29/1 - add subm pile

Survey Summary

Survey Position:	30° 22' 31.2" N, 088° 33' 41.4" W
Least Depth:	4.24 m (= 13.91 ft = 2.318 fm = 2 fm 1.91 ft)
TPU (±1.96σ):	THU (TPEh) ±-1.000 m ; TVU (TPEv) ±-1.000 m
Timestamp:	2005-104.18:37:28.154 (04/14/2005)
Survey Line:	h11384 / 1211sb / 2005-104 / 007_1837
Profile/Beam:	29/1
Charts Affected:	11374_2, 11373_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

ht=1m Subm pile.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11384/1211sb/2005-104/007_1837	29/1	0.00	000.0	Primary
h11384/1211dp_non_echosounder/2005-104/dn104	25/1	3.06	353.3	Secondary (grouped)

Hydrographer Recommendations

Add subm pile at 30.37528090, -088.561252

Cartographically-Rounded Depth (Affected Charts):

14ft (11374_2, 11373_1) 2 ¼fm (1115A_1, 11360_1, 11006_1, 411_1)

S-57 Data

Geo object 1: Pile (PILPNT)

Attributes: CATPLE - 3:post CONVIS - 2:not visual conspicuous INFORM - add a subm pile

Concur. Chart a subm pile in Latitude 30°22'31.160"N, Longitude 88°33'41.439"W.

2 - AWOIS Features

2.1) AWOIS #12573 - OBSTRUCTION

No Primary Survey Feature for this AWOIS Item

Search Position:	30° 22' 07.0" N, 088° 33' 50.4" W
Historical Depth:	[None]
Search Radius:	80
Search Technique:	MB,ES,S2,SD,DI
Technique Notes:	[None]

History Notes:

LNM 02/04--1/22/04; ADD SYMBOL: "SUBMERGED OBSTRUCTION (PA)" AT 30°22'07.00"N 88°33'50.40"W OPR-J376-NRT4-04, H-11384,2005 Surveyed w/ 200% SSS all associated contacts investigated w/ SBES. Hydrographer recommends removing PA from chart and charting obstruction at surveyed position. 30.36869991, -088.56456180

Survey Summary

Charts Affected: 11375_1, 11374_2, 11373_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Surveyed w/ 200% SSS all associated contacts investigated w/ SBES.

Feature Correlation

Address	Feature	Range	Azimuth	Status
OPR-J376-Pascagoula-AWOIS	AWOIS # 12573	0.00	000.0	Primary
h11384/1211sb/2005-104/032_1658	848/1	3.61	196.6	Secondary
h11384/1211sb/2005-104/032_1658	848/1	3.61	196.6	Secondary
h11384/1211dp_non_echosounder/2005-104/dn104	21/1	24.26	093.0	Secondary
h11384/1211dp_non_echosounder/2005-104/dn104	19/1	38.43	259.9	Secondary

Hydrographer Recommendations

Hydrographer recommends removing PA from chart and charting obstruction at surveyed position. 30.36869991, -088.56456180

S-57 Data

Geo object 1:Cartographic symbol (\$CSYMB)Attributes:INFORM - delete charted Obstn PA

Office Notes

Concur, AWOIS feature no longer present, update AWOIS database, delete charted Obstn PA.

2.2) AWOIS #12574 - OBSTRUCTION

No Primary Survey Feature for this AWOIS Item

30° 22' 00.0" N, 088° 33' 54.0" W
[None]
200
MB,ES,S2,SD,DI
SEARCH NOT REQUIRED OUTSIDE OF CHARTED TURNING BASIN LIMITS

History Notes:

LNM 01/98--1/6/98; ADD SYMBOL: "SUBMERGED OBSTRUCTION (PA)" AT 30°22'00.0"N 088°33'54.0"W OPR-J376-NRT4-04, H-11384,2005 Surveyed w/ 200% SSS all associated contacts investigated w/ SBES. Nothing of significance found. Hydrographer recommends removing "Obstn PA".

Survey Summary

Charts Affected: 11375_1, 11374_2, 11373_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

AWOIS item surveyed w/ 200% SSS SBES. No obstructions found.

Feature Correlation

Address	Feature	Range	Azimuth	Status	
OPR-J376-Pascagoula-AWOIS	AWOIS # 12574	0.00	000.0	Primary	

Hydrographer Recommendations

Hydrographer recommends removing "Obstns PA" from chart.

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Attributes: INFORM - delete Obstn PA

Office Notes

Concur, AWOIS feature no longer present, update AWOIS database, delete charted Obstn PA.

2.3) AWOIS #12575 - UNKNOWN

No Primary Survey Feature for this AWOIS Item

Search Position:	30° 20' 42.8" N, 088° 34' 23.9" W
Historical Depth:	[None]
Search Radius:	0
Search Technique:	ES,S2,SD,MB,DI, VS
Technique Notes:	SEARCH AREA IS RECTANGLE. NW CORNER = 30 20 43 - 88 34 17, SE CORNER = 30 20 41 - 88 34 19

History Notes:

L-1210/74--5/1/74; LETTER IS THE ISSUANCE OF A DEPARTMENT OF ARMY PERMIT TO CONSTRUCT MOORING DOLPHINS AND EXTEND CRANE TRACKS IN PASCAGOULA RIVER. PERMIT SAMOP-SP 73-275 OF JULY 1973 AUTHORIZED INGALLS SHIPYARD TO "CONSTRUCT 3-5 PILE MOORING DOLPHINS APPROXIMATELY 30 FEET FROM THE SHORELINE FRONTING THE PROPERTY. FOUR EXISTING CRANE TRACKS WILL ALSO BE EXTENDED APPROXIMATELY 20 FEET INTO THE WATER." OPR-J376-NRT4-04, H-11384,2005 Destroyer Class ships continually moored in this location. Investigation impossible. Retain as charted.

Survey Summary

Charts Affected: 11375_1, 11374_2, 11373_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Destroyer Class ships continually moored in this location. Investigation impossible. No contact found on .sdf 43900 Day#19.

Feature Correlation

Address	Feature	Range	Azimuth	Status
OPR-J376-Pascagoula-AWOIS	AWOIS # 12575	0.00	000.0	Primary

Hydrographer Recommendations

Retain as charted.

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Attributes: INFORM - delete charted Dols

Do not concur, USGS OrthImagery shows Dols are not longer present, delete charted Dols.

2.4) AWOIS #12576 - UNKNOWN

No Primary Survey Feature for this AWOIS Item

Search Position:	30° 20' 42.9" N, 088° 34' 10.3" W
Historical Depth:	[None]
Search Radius:	80
Search Technique:	ES,S2,SD,MB,DI, VS
Technique Notes:	[None]

History Notes:

L-1210/74--5/1/74; LETTER IS THE ISSUANCE OF A DEPARTMENT OF ARMY PERMIT TO CONSTRUCT MOORING DOLPHINS AND EXTEND CRANE TRACKS IN PASCAGOULA RIVER. PERMIT SAMOP-SP 73-275 OF JULY 1973 AUTHORIZED INGALLS SHIPYARD TO "CONSTRUCT 3-5 PILE MOORING DOLPHINS APPROXIMATELY 30 FEET FROM THE SHORELINE FRONTING THE PROPERTY. FOUR EXISTING CRANE TRACKS WILL ALSO BE EXTENDED APPROXIMATELY 20 FEET INTO THE WATER." THE GIVEN POSITION OF THIS AWOIS ITEM REFERS TO A CENTRAL LOCATION AMONG THE THREE CURRENTLY CHARTED DOLPHINS. OPR-J376-NRT4-04, H-11384,2005 Destroyer Class ships continually moored in this location. Investigation impossible. Hydrographer recommends retaining as charted.

Survey Summary

Charts Affected: 11375_1, 11374_2, 11373_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Destroyer Class ships continually moored in this location. Investigation impossible.

Feature Correlation

Address	Feature	Range	Azimuth	Status
OPR-J376-Pascagoula-AWOIS	AWOIS # 12576	0.00	000.0	Primary

Hydrographer Recommendations

Hydrographer recommends retaining as charted.

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Attributes: INFORM - delete charted Dols

Do not concur, USGS OrthImagery shows Dols are not longer present, delete charted Dols.

2.5) AWOIS #12579 - UNKNOWN

No Primary Survey Feature for this AWOIS Item

Search Position:	30° 20' 24.0" N, 088° 34' 00.0" W
Historical Depth:	[None]
Search Radius:	100
Search Technique:	ES,MB,S2,SD,DI,VS
Technique Notes:	[None]

History Notes:

LNM 31/94--8/2/94; ADD SYMBOL: "SUBMERGED PILE (PA)" AND LEGEND "(UNCOVERS)" AT 30°20'24.0"N 88°34'W OPR-J376-NRT4-04, H-11384,2005 Majority of search radius investigated w/ 200% SSS SBES. Nothing significanct found. Hydrographer recommends removing "Subm pile PA" from chart

Survey Summary

Charts Affected: 11375_1, 11374_2, 11373_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Majority of search radius investigated w/ 200% SSS SBES. Nothing significanct found.

Feature Correlation

Address	Feature	Range	Azimuth	Status
OPR-J376-Pascagoula-AWOIS	AWOIS # 12579	0.00	000.0	Primary

Hydrographer Recommendations

Hydrographer recommends removing "Subm pile PA" from chart.

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Attributes: INFORM - delete the charted Subm Pile PA

Office Notes

Concur, delete the charted Subm pile PA.

2.6) AWOIS #12580 - OBSTRUCTION

No Primary Survey Feature for this AWOIS Item

Search Position: 30° 19' 52.0" N, 088° 33' 48.0" W

Historical Depth: [None]

Search Radius: 0

Search Technique: SD,DI,VS Technique Notes: [None]

History Notes:

L-1544/93--7/90; ADD OBSTN SOUTH OF "SHL" AT 30°19.81'N 88°33.8'W. OBSTRUCTION MARKED WITH WOOD STAKE. SOURCE OF LETTER IS U.S. POWER SQUADRON. OPR-J376-NRT4-04, H-11384,2005 For informational purposes only. Retain as charted.

Survey Summary

Charts Affected: 11375_1, 11374_2, 11373_1, 11366_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

For informational purposes only.

Feature Correlation

Address	Feature	Range	Azimuth	Status
OPR-J376-Pascagoula-AWOIS	AWOIS # 12580	0.00	000.0	Primary

Hydrographer Recommendations

Retain as charted.

S-57 Data

Geo object 1:Cartographic symbol (\$CSYMB)Attributes:INFORM - retain charted dangerous Obstn PA

Office Notes

Concur, AWOIS investigation not undertaken, retain charted dangerous Obstn PA.

2.7) AWOIS #12581 - UNKNOWN

No Primary Survey Feature for this AWOIS Item

Search Position:	30° 19' 48.7" N, 088° 33' 12.1" W
Historical Depth:	[None]
Search Radius:	150
Search Technique:	ES,MB,S2,SD,DI,VS
Technique Notes:	SEARCH NOT REQUIRED INSIDE FEDERAL CHANNEL LIMITS

History Notes:

LNM 28/82--7/7/82; A 15 FOOT P/C IS REPORTED SUNK IN APPROXIMATE POSITION 30°19.8N 88°33.2W (NAD27) IN APPROXIMATELY NINE FEET OF WATER AND IS MARKED WITH A WHITE CONTAINER. LNM 46/82--11/9/82; THE PREVIOUSLY REPORTED SUNK P/C AT THIS LOCATION COULD NOT BE LOCATED. THE CHARTED WRECK WAS REVISED FROM "PA" TO "PD". DOPR-J376-NRT4-04, H-11384,2005 Majority of search radius not surveyed due to depths too shallow for SSS. Hyrographer recommends retaining as charted.

Survey Summary

Charts Affected: 11375_1, 11374_2, 11373_1, 11366_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Majority of search radius not surveyed due to depths too shallow for SSS.

Feature Correlation

Address	Feature	Range	Azimuth	Status
OPR-J376-Pascagoula-AWOIS	AWOIS # 12581	0.00	000.0	Primary

Hydrographer Recommendations

Hyrographer recommends retaining as charted.

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Attributes: INFORM - retain charted dangerous submerged Wk PD

Concur, AWOIS investigation not undertaken, retain charted dangerous submerged Wk PD.

2.8) AWOIS #12582 - GEE BEE

No Primary Survey Feature for this AWOIS Item

Search Position:	30° 19' 22.8" N, 088° 33' 08.4" W
Historical Depth:	[None]
Search Radius:	150
Search Technique:	ES,MB,S2,SD,DI,VS
Technique Notes:	[None]

History Notes:

LNM 02/94--1/11/94; ADD SYMBOL: "DANGEROUS WRECK (PA)" (28 FT F/V GEE BEE) AT 30°19'22.8"N 088°33'08.4"W**D**OPR-J376-NRT4-04, H-11384,2005**D**SB hydrography was conducted in area of AWOIS item #12582. Nothing was found.**D**Hydrographer recommends removal of WR PA from chart.

Survey Summary

Charts Affected: 11375_1, 11374_2, 11373_1, 11366_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

SB hydrography was conducted in area of AWOIS item #12582. Nothing was found.

Feature Correlation

Address	Feature	Range	Azimuth	Status
OPR-J376-Pascagoula-AWOIS	AWOIS # 12582	0.00	000.0	Primary

Hydrographer Recommendations

Hydrographer recommends removal of WR PA from chart.

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Attributes: INFORM - retain charted dangerous submerged Wk

Office Notes

Do not concur, AWOIS investigation incomplete, retain charted dangerous submerged Wk.

2.9) AWOIS #12583 - UNKNOWN - delete Pile PA, chart Pile

No Primary Survey Feature for this AWOIS Item

Search Position:	30° 19' 20.0" N, 088° 32' 47.0" W
Historical Depth:	[None]
Search Radius:	150
Search Technique:	ES,SD,DI,VS
Technique Notes:	[None]

History Notes:

LNM 44/92--10/27/92; ADD SYMBOL: "PILE (PA)" AT 30°19'20.0"N 88°32'47.0"W FEATURE APPEARS ON CHART 11375,. BUT NOT CHART 11374. OPR-J376-NRT4-04, H-11384,2005 200% sss was conducted . Contact found, LD=7ft mllw. Recommend charting subm pile at 30°19'20.525", -088°32'47.905". Remove the previously charted pile PA.

Survey Summary

Charts Affected: 11375_1, 11374_2, 11373_1, 11366_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

200% SSS and SBES investigation was conducted. Contact found, LD=7ft mllw.

Feature Correlation

Address	Feature	Range	Azimuth	Status
OPR-J376-Pascagoula-AWOIS	AWOIS # 12583	0.00	000.0	Primary

Hydrographer Recommendations

Recommend charting subm pile at 30°19'20.525", -088°32'47.905". Remove the previously charted pile PA.

S-57 Data

Geo object 1:	Cartographic symbol (\$CSYMB)	
Attributes: INFORM - delete charted pile P		
Geo object 2:	Pile (PILPNT)	
Attributes:	CATPLE - 3:post	
	CONVIS - 2:not visual conspicuous	
	OBJNAM - AWOIS 12583	

Concur, delete charted pile PA.

2.10) AWOIS #12584 - OBSTRUCTION

No Primary Survey Feature for this AWOIS Item

Search Position:	30° 19' 18.7" N, 088° 32' 54.0" W
Historical Depth:	[None]
Search Radius:	150
Search Technique:	MB,ES,S2,SD,DI,VS
Technique Notes:	[None]

History Notes:

LNM 28/86--7/16/86; SHRIMP NET IS REPORTED PARTIALLY SUBMERGED AND SNAGGED ON THE BOTTOM 200 YARDS NORTH OF PASCAGOULA CHANNEL LIGHT 39 (LLNR 2587) IN APPROXIMATE POSITION 30°19'18"N 88°32'54"W. OPR-J376-NRT4-04, H-11384,2005 Contact insignificant Remove Obstn PA from chart.

Survey Summary

Charts Affected: 11375_1, 11374_2, 11373_1, 11366_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Contact insignificant

Feature Correlation

Address		Feature	Range	Azimuth	Status	
OPR-J376-Pascagoula-	AWOIS AW	VOIS # 12584	0.00	000.0	Primary	

Hydrographer Recommendations

Remove Obstn PA from chart.

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Attributes: INFORM - delete Obstn PA

Concur, AWOIS feature no longer present, update AWOIS database, delete charted Obstn PA.

2.11) AWOIS #12585 - UNKNOWN

No Primary Survey Feature for this AWOIS Item

Search Position:	30° 19' 13.7" N, 088° 32' 58.0" W
Historical Depth:	[None]
Search Radius:	150
Search Technique:	ES,MB,S2,SD,DI
Technique Notes:	[None]

History Notes:

LNM 22/76--5/26/76; A 31 FOOT FISHING VESSEL HAS BEEN REPORTED SUNK IN APPROXIMATE POSITION 30°19'13"N 88°32'58"W (NAD27) IN LIEU OF THE POSITION PREVIOUSLY REPORTED. OPR-J376-NRT4-04, H-11384,2005 litem not completely surveyed w/ SSS due to shallow depths. Remainder of area was convered with SBES. Nothing was found Hydrographer recommends removal of visible wreck PA from chart.

Survey Summary

Charts Affected: 11375_1, 11374_2, 11373_1, 11366_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Item not completely surveyed w/ SSS due to shallow depths. Remainder of area was convered with SBES. Nothing was found

Feature Correlation

Address	Feature	Range	Azimuth	Status
OPR-J376-Pascagoula-AWOIS	AWOIS # 12585	0.00	000.0	Primary

Hydrographer Recommendations

Hydrographer recommends removal of visible wreck PA from chart.

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Attributes: INFORM - revise the charted visible wreck to a sunken Wk PA

Concur w/clarification. Side scan investigation was incomplete, revise the charted visible wreck to a sunken Wk PA.

2.12) AWOIS #12586 - ONE SICK ONE

No Primary Survey Feature for this AWOIS Item

Search Position:	30° 19' 06.7" N, 088° 35' 00.1" W
Historical Depth:	[None]
Search Radius:	200
Search Technique:	ES,MB,S2,SD,DI,VS
Technique Notes:	[None]

History Notes:

LNM 27/89--7/4/89; ADD SYMBOL: "DANGEROUS WRECK (PA)" (40 FT. F/V ONE SICK ONE) AT 30°19'06.7"N 88°35'00.1"W. OPR-J376-NRT4-04, H-11384,2005 Item not investigated w/ SSS due to shallow depths. Hydrographer recommends retaining as charted.

Survey Summary

Charts Affected: 11375_1, 11374_2, 11373_1, 11366_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Item not investigated w/ SSS due to shallow depths.

Feature Correlation

Address	Feature	Range	Azimuth	Status
OPR-J376-Pascagoula-AWOIS	AWOIS # 12586	0.00	000.0	Primary

Hydrographer Recommendations

Hydrographer recommends retaining as charted.

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Attributes: INFORM - retain charted dangerous submerged Wk PA

Office Notes

Concur, AWOIS investigation not undertaken, retain charted dangerous submerged Wk PA.

2.13) AWOIS #12587 - OBSTRUCTION

No Primary Survey Feature for this AWOIS Item

Search Position:	30° 18' 42.5" N, 088° 32' 58.8" W
Historical Depth:	[None]
Search Radius:	150
Search Technique:	ES,MB,S2,SD,DI,VS
Technique Notes:	[None]

History Notes:

BP-81478 (REF. T-10769)--5/21/73; REPORTS EXISTANCE OF OBSTRUCTION NEXT TO PILE SYMBOL. DATE OF PHOTO: 0CTOBER, 1958; DATE OF FIELD INSPECTION: FEBRUARY, 1959 BY US COAST GEODETIC SURVEY. SCALE: 1:10,000. POSITION SCALED OF CURRENT CHART OPR-J376-NRT4-04, H-11384,2005 Item not investigated w/ SSS due to shallow depths. Hydrographer recommends retaining as charted.

Survey Summary

Charts Affected: 11375_1, 11374_2, 11373_1, 11366_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Item not investigated w/ SSS due to shallow depths.

Feature Correlation

Address	Feature	Range	Azimuth	Status	
OPR-J376-Pascagoula-AWOIS	AWOIS # 12587	0.00	000.0	Primary	

Hydrographer Recommendations

Hydrographer recommends retaining as charted.

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Attributes: INFORM - retain charted Obstn

Concur, AWOIS investigation not undertaken, retain charted Obstn.

2.14) AWOIS #12588 - SHARON KAY

No Primary Survey Feature for this AWOIS Item

Search Position:	30° 18' 36.7" N, 088° 33' 00.1" W
Historical Depth:	[None]
Search Radius:	150
Search Technique:	ES,MB,S2,SD,DI,VS
Technique Notes:	[None]

History Notes:

LNM 33/80--8/6/80; THE 42 FT. FISHING VESSEL SHARON KAY HAS SUNK IN APPROXIMATE POSITION 30°18.6'N 88°33.0W (NAD27) WITH THE PORT QUARTER OF THE SUPER STRUCTURE EXTENDING OUT OF THE WATER. OPR-J376-NRT4-04, H-11384,2005 Item not investigated w/ SSS due to shallow depths. Hydrographer recommends retaining as charted.

Survey Summary

Charts Affected: 11375_1, 11374_2, 11373_1, 11366_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Item not investigated w/ SSS due to shallow depths.

Feature Correlation

Address	Feature	Range	Azimuth	Status	
OPR-J376-Pascagoula-AWOIS	AWOIS # 12588	0.00	000.0	Primary	

Hydrographer Recommendations

Hydrographer recommends retaining as charted.

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Attributes: INFORM - retain charted dangerous submerged Wk PD

Concur, AWOIS investigation not undertaken, retain charted dangerous submerged Wk PD.

2.15) AWOIS #12589 - UNKNOWN

No Primary Survey Feature for this AWOIS Item

Search Position:	30° 18' 30.0" N, 088° 32' 36.0" W
Historical Depth:	[None]
Search Radius:	150
Search Technique:	ES,MB,S2,SD,DI,VS
Technique Notes:	[None]

History Notes:

LNM 24/89--6/13/89; ADD SYMBOL: "DANGEROUS WRECK (PA)" (18 FT TRI-HULL) AT 30°18'30"N 88°32'36"W. DOPR-J376-NRT4-04, H-11384,2005 Item investigated w/ SBES. Nothing was found. Hydrographer recommends removal of Wreck PA.

Survey Summary

Charts Affected: 11375_1, 11374_2, 11373_1, 11366_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Item investigated w/ SBES. Nothing was found.

Feature Correlation

Address	Feature	Range	Azimuth	Status
OPR-J376-Pascagoula-AWOIS	AWOIS # 12589	0.00	000.0	Primary

Hydrographer Recommendations

Hydrographer recommends removal of Wreck PA.

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Attributes: INFORM - retain charted dangerous submerged Wk PA

Office Notes

Do not concur, AWOIS investigation incomplete, retain charted dangerous submerged Wk PA.

2.16) AWOIS #12590 - UNKNOWN

No Primary Survey Feature for this AWOIS Item

Search Position:	30° 18' 30.7" N, 088° 33' 48.1" W
Historical Depth:	[None]
Search Radius:	200
Search Technique:	ES,MB,S2,SD,DI,VS
Technique Notes:	[None]

History Notes:

LNM 50/77--11/30/77; A 38 FOOT VESSEL HAS BEEN REPORTED SUNK APPROXIMATELY 1.2 MILES DUE WEST OF PASCAGOULA CHANNEL LT 37 (LLNR 1837) IN APPROXIMATE POSITION 30°18.5'N 80°33.8W (NAD27) IN 10 FEET OF WATER. FOUR FEET OF THE MAST IS SHOWING ABOVE THE WATER. THE WRECK HAS BEEN MARKED WITH A BLACK BUOY SHOWING A QUICK FLASHING GREEN LIGHT.

Survey Summary

Charts Affected: 11375_1, 11374_2, 11373_1, 11366_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Item not investigated w/ SSS due to shallow depths.

Feature Correlation

Address	Feature	Range	Azimuth	Status
OPR-J376-Pascagoula-AWOIS	AWOIS # 12590	0.00	000.0	Primary

Hydrographer Recommendations

Hydrographer recommends retaining as charted.

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Attributes: INFORM - retain charted dangerous submerged Wk Mast PA

Concur, AWOIS investigation not undertaken, retain charted dangerous submerged Wk Mast PA.

2.17) AWOIS #12594 - OBSTRUCTION - Revise position

No Primary Survey Feature for this AWOIS Item

Search Position:	30° 22' 19.4" N, 088° 33' 45.0" W
Historical Depth:	[None]
Search Radius:	100
Search Technique:	MB,ES,S2,SD,DI
Technique Notes:	[None]

History Notes:

NO SOURCE FOUND. ITEM IS A POSITION APPROXIMATE SUBMERGED OBSTRUCTION WITH BLUE TINT. ON THE 20TH EDITION PAPER COPY (DECEMBER 29, 1984), THE PYLON OF A BRIDGE IS LOCATED AT THIS POSITION. ON THE 23RD EDITION (AUGUST 18, 1990), THE BRIDGE IS NO LONGER CHARTED AND THIS OBSTRUCTION APPEARS ON THE CHART. THERE IS NOW A BRIDGE UNDER CONSTRUCTION SLIGHTLY NORTH OF THE OLD ONE. PERHAPS THIS OBSTRUCTION IS PART OF THE PYLON REMAINING FROM THE OLD BRIDGE. OPR-J376-NRT4-04, H-11384,2005 AWOIS item investigated w/ 200% SSS SBES. Numerous small contacts found w/in radius. Nothing significant. Hydrographer recommends removal of "Obstn" symbol. OPR-J376-NRT4-04, H-11384,2005 AWOIS item investigated w/ 200% SSS SBES. Numerous small contacts found w/in radius. Nothing significant. Hydrographer recommends removal of "Obstn" symbol.

Survey Summary

Charts Affected: 11375_1, 11374_2, 11373_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

AWOIS item investigated w/ 200% SSS SBES. Numerous small contacts found w/in radius. Nothing significant.

	Address	Feature	Range	Azimuth	Status
	OPR-J376-Pascagoula-AWOIS	AWOIS # 12594	0.00	000.0	Primary
hl	1384/1211sss500k/2005-019/p050119182900	0004	8.77	357.4	Secondary
hl	1384/1211sss500k/2005-019/p050119183700	0001	71.20	245.5	Secondary
hl	1384/1211sss500k/2005-019/p050119183700	0001	71.20	245.5	Secondary
hl	1384/1211sss500k/2005-011/p050111175900	0001	74.68	235.9	Secondary
hl	1384/1211sss500k/2005-011/p050111175900	0001	75.00	239.5	Secondary

Feature Correlation

Hydrographer Recommendations

Hydrographer recommends removal of "Obstn" symbol.

S-57 Data

Geo object 1:Cartographic symbol (\$CSYMB)Attributes:INFORM - Revise the location and remove PA notation

Office Notes

Do not concur. Do not chart as the new location of the obstruction would place it under the charted bridge. Recommend MCD, Nautical Data Branch, contact the appropriate authorities to update the charted bridge.



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

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE : October 12, 2005

HYDROGRAPHIC BRANCH: Atlantic Hydrographic Branch HYDROGRAPHIC PROJECT: OPR-J376-NRT4-2004 HYDROGRAPHIC SHEET: H11384

LOCALITY: Upper Pascagoula Channel to Krebs Lake, MS TIME PERIOD: January 11 - July 5, 2005

TIDE STATION USED: Pascagoula Point, MS 874-1196 Lat. 30 20.4' N Long. 088 32.0' W PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 0.442 meters

TIDE STATION USED: Horn Island, MS 874-2221 Lat. 30 14.3' N Long. 088 40.0' W PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 0.456 meters

REMARKS: RECOMMENDED ZONING Use zone(s) identified as: CGM63, CGM64, CGM65, CGM65A, & CGM66

Refer to attachments for zoning information.

- Note 1: Provided time series data are tabulated in metric units (meters), relative to MLLW and on Greenwich Mean Time on the 1983-2001 National Tidal Datum Epoch (NTDE).
- Note 2: Use tide data from the appropriate station with applicable zoning correctors for each zone according to the order in which they are listed in the Tidezone corrector file (*.ZDF). For example, tide station one (TS1) would be the first choice for an applicable zone followed by TS2, etc. when data are not available.

CHIEF, REQUIREMENTS AND DEVELOPMENT DIVISION

ATLANTIC HYDROGRAPHIC BRANCH EVALUATION REPORT to ACCOMPANY SURVEY H11384 (2005)

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

B. DATA ACQUISITION AND PROCESSING

B.1 DATA PROCESSING

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

HSTP PYDRO version 8.7 (r2586) CARIS HIPS/SIPS version 6.1 SP2 HF 7 CARIS Bathy Manager version 2.1 HF 10 dKart INSPECTOR, version 5.0 Build 732 SP1 CARIS HOM version 3.3 HF 8 CARIS S57 Composer version 2.0 HF 3 MapInfo version 9.0

B.2. <u>QUALITY CONTROL</u>

B.2.1. <u>H-Cell</u>

The AHB source depth grid for the survey's nautical chart update product was a 2m shoal biased single beam swath BASE surface generated by office personnel. Survey scale soundings were extracted from AHB generated 2m shoal biased single beam BASE surface at a 1:10000 scale using a radius of 5m. Soundings were selected for charting by hand using the latest raster charts (11375 and 11374). Soundings were then checked for conflicts, corrected to remove conflicts, and edited to allow for proper sounding compilation placement with respect to existing channels and charted depths outside the survey area.

Smooth contours were drawn by hand, utilized during chart scale sounding selection and quality assurance efforts, and are forwarded to MCD for reference only. The depth contours are incorporated into the SS H-Cell product as per 2009 H-Cell Specifications.

All of the components with the exception of the sounding selection and depth contours were inserted into one feature layer (including the Bluenotes, as dictated by Hydrographic Technical Directive 2008-8), and this layer was exported into S-57 format in order to create the H-Cell deliverable. Similarly, the sounding selection and depth contours were exported into S-57 format separately, and then both S-57 files were processed in CARIS HOM to convert the metric units to feet/fathoms and feet. The final products are two S-57 files, in Lat/Lon NAD-83, one that contains the chart soundings, all the features, Meta objects, and Bluenotes (H11384_CS.000), and one that contains the sounding selection and depth contours

(H11384_SS.000). Finally, quality assurance checks were made utilizing CARIS S-57 Composer version 2.0 validation checks and dKartT Inspector version 5.0 tests.

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

H11384 CARIS H-Cell final deliverables include the	following products:
--	---------------------

H11384_CS.000	1:20,000 Scale	H11384 H-Cell with Chart Scale Selected
		Soundings
H11384_SS.000	1:10,000 Scale	H11384 Survey Scale Soundings with
		smoothed contours

B.2.2. Junctions

No contemporary surveys exist for junctioning.

C. VERTICAL AND HORIZONTAL CONTROL

Final vertical correction processing was completed by office personnel at the Atlantic Hydrographic Branch. Office personnel applied verified water levels in conjunction with the updated final tidal zoning which was provided and approved by N/OPSI CO-OPS as the final zoning for H11384. Sounding datum is Mean Lower Low Water (MLLW). Vertical datum is Mean High Water (MHW)

Horizontal control used for this survey during data acquisition is based upon the North American Datum of 1983 (NAD83), UTM projection zone 16.

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

D.1	CHART COMPARISON	11375 (36 th Edition, Jan./05)
		Corrected through NM Jan. 8/05
		Corrected through LNM Jan. 4/05
		Scale 1:20,000
		11374 (34 th Edition, Oct./07)

Corrected through NM Oct. 06/07 Corrected through LNM Sep. 25/07 Scale 1:40,000

ENC Comparison

US5MS22M Pascagoula Harbor Mississippi Edition 18 Application Date 2009-01-27 Issue Date 2009-03-12 References Chart 11375

US5MS21M

Dauphin Island Ala to Horn Island Miss Edition 17 Application Date 2008-12-04 Issue Date 2009-02-27 References Chart 11374

D.1.1 <u>Hydrography</u>

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

1. In the following locations, it is recommended to chart new subm pier (ruins).

Latitude	Longitude	Feature
30°22'32.87" N	88°33'40.59" W	add subm pier (ruins)
30°22'26.69" N	88°33'38.69" W	add subm pier (ruins)

2. In the following locations, it is recommended to chart a new pier:

Latitude	Longitude	Feature
30°22'41.85" N	88°33'40.71" W	add pier
30°22'21.55" N	88°33'38.34" W	add pier

3. In the following locations, it is recommended to chart a new floating dock:

Latitude	Longitude	Feature
30°22'22.25" N	88°33'40.29" W	add Floating Dock
30°22'21.44" N	88°33'39.51" W	add Floating Dock
30°22'43.04" N	88°33'41.89'' W	add Floating Dock
30°22'43.35" N	88°33'41.96" W	add Floating Dock

4. In the following locations, it is recommended to chart a new Dol:

Latitude	Longitude	Feature
30°21'42.431" N	88°33'50.605" W	Add Dol
30°21'43.096" N	88°33'50.616" W	Add Dol
30°21'43.779" N	88°33'50.605" W	Add Dol

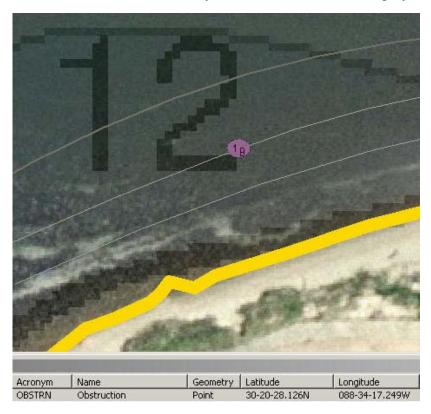
Latitude	Longitude	Feature
30°22'16.399" N	88°33'53.022" W	Add Dol
30°22'28.557" N	88°33'38.442" W	Add Dol
30°22'28.989" N	88°33'38.418" W	Add Dol
30°22'30.996" N	88°33'38.903" W	Add Dol

5. In the following locations, it is recommended to chart a new subm pile:

Latitude	Longitude	Feature
30°21'23.062" N	88°33'39.958" W	Add subm pile
30°21'23.571" N	88°33'39.925" W	Add subm pile
30°21'24.420" N	88°33'39.746" W	Add subm pile
30°22'24.010" N	88°33'39.811" W	Add subm pile
30°22'26.451" N	88°33'38.836" W	Add subm pile
30°22'32.895" N	88°33'41.400" W	Add subm pile
30°22'35.820" N	88°33'41.184'' W	Add subm pile

6. The dangerous 2 ft Obstn in Latitude 30°20'28.126" N, Longitude 88°34'17.249" W, identified during the course of this survey should be added to the AWOIS database. As this area has experienced many hurricanes, including hurricane Katrina, after the final date of the survey, it is highly doubtful this Obstn exists today. This dang. 2 Obstn should be flagged for follow-up AWOIS investigation to determine if the feature still exists.

As can be seen in the following image, if a 10x10x40 ft marine transportation conex box still existed in this location, it would be clearly visible in the satellite imagery:



D.3. <u>MISCELLANEOUS</u>

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

Features from the survey were verified using RSD Shoreline data from survey MS0602 obtained on July 17, 2008, and US Geological Survey Orthoimagery downloaded from the USGS website (<u>http://seamless.usgs.gov</u>). The USGS Orthoimages were taken by the US Geological Survey in March of 2006 at 0.5 meter resolution and in January 2007 at 2 foot resolution.

D.4. ADEQUACY OF SURVEY

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

After the completion date of this survey, the Pascagoula, MS area was hit by hurricane Katrina and had numerous tropical storms and hurricanes roll through the Gulf of Mexico in the years since. It is recommended this area be marked for follow-up full resolution multi-beam surveying.

Updated Shoreline data was collected on July 17, 2008, and has not yet been applied to the chart. The RSD Shoreline file from survey MS0602 is included with the survey deliverables (shoreline_extract_jupiter827352.zip). It is recommended the updated shoreline and verified shoreline features be applied to the chart at the same time as the survey data.

Bryan Chauveau

Bryan Chauveau Physical Scientist Verification of Data Evaluation and Analysis Report

H11384 COMPILATION PROCESS RECORD

Registry No. Project No. Field Unit Compilers

H11384 OPR-J376-NRT4 NOAA Launches NRT1 and NRT4 Bryan Chauveau

11375 (36th Edition, Jan./05)

Corrected through NM Jan. 8/05 Corrected through LNM Jan. 4/05 Scale 1:20,000

11374 (34th Edition, Oct./07)

Corrected through NM Oct. 06/07 Corrected through LNM Sep. 25/07 Scale 1:40,000

Largest Scale Chart

<u>US5MS22M</u>

Pascagoula Harbor Mississippi Edition 18 Application Date 2009-01-27 Issue Date 2009-03-12 References Chart 11375

US5MS21M

Dauphin Island Ala to Horn Island Miss Edition 17 Application Date 2008-12-04 Issue Date 2009-02-27 References Chart11374

Survey Scale1:1Date Of Survey1-1

1:10000 1-11 to 7-7-2005

Milestones	File Name
Survey Scale Soundings	H11384_SS_Soundings.hob
	H11384_Smooth_Contours.hob
Chart Scale Soundings	H11384_CS_Soundings.hob
Feature Layers	H11384_DepAre.hob
	H11384_Obstrns.hob
	H11384_Piles.hob
	H11384_Dolphins.hob
	H11384_Shoreline_Constr.hob
	H11384_Private_Beacon.hob
Meta-objects Layer	H11384_MCovr.hob
	H11384_MQual.hob
Blue Notes	H11384_BlueNotes.hob

M_QUAL attributes	S
Acronym	Value
CATZOC	zone of confidence 6
INFORM	H11384,OPR-J376-NRT4,NRT Launches S1211 & S3001
TECSOU	Singlebeam
SURSTA	20050111
SUREND	20050705
POSACC	10
SORDAT	20050705
SORIND	US,US,survy,H11384

Final Grids Listing –

H11384_shoal_2m_extracted.hns H11384_shoal_2m_extracted.xml H11384_shoal_2m_extracted_Depth.bel

APPROVAL SHEET H11384

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

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

> Bryan Chauveau 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:

Shepard Smith Commander, NOAA Chief, Atlantic Hydrographic Branch