

H11513

NOAA FORM 76-35A U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SURVEY DESCRIPTIVE REPORT	
<i>Type of Survey:</i>	Navigable Area
<i>Registry Number:</i>	H11513
LOCALITY	
<i>State:</i>	Mississippi
<i>General Locality:</i>	Gulf of Mexico
<i>Sub-locality:</i>	Approaches to Gulfport
2005 CHIEF OF PARTY CAPT Emily B. Christman, NOAA	
DATE	LIBRARY & ARCHIVES

NOAA FORM 77-28 (11-72)	U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION	REGISTRY NUMBER: <p style="text-align: center; font-size: 1.2em;">H11513</p>	
<p style="font-size: 1.2em; font-weight: bold;">HYDROGRAPHIC TITLE SHEET</p>			
INSTRUCTIONS: The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.			
State:	<p style="color: red; font-weight: bold; font-style: italic;">Mississippi</p>		
General Locality:	<p style="font-weight: bold;">Gulf of Mexico</p>		
Sub-Locality:	<p style="font-weight: bold;">Approaches to Gulfport</p>		
Scale:	<p style="font-weight: bold;">1:10,000</p>	Date of Survey:	<p style="font-weight: bold;">10/13/05 to 11/04/05</p>
Instructions Dated:	<p style="font-weight: bold;">09/07/05</p>	Project Number:	<p style="font-weight: bold;">OPR-J323-TJ-05</p>
Change No.2 Dated:	<p style="font-weight: bold;">09/07/05</p>		
Vessel:	<p style="font-weight: bold;">NOAA Ship THOMAS JEFFERSON, S-222</p>		
Chief of Party:	<p style="font-weight: bold;">CAPT Emily B. Christman, NOAA</p>		
Surveyed by:	<p style="font-weight: bold;">THOMAS JEFFERSON Personnel</p>		
Soundings by:	<p style="font-weight: bold;">Reson SeaBat 8101 multibeam sonar</p> <p style="font-weight: bold; color: blue;">Reson SeaBat 8125 multibeam sonar</p>		
Graphic record checked by:	<p style="font-weight: bold;">N/A</p>		
Protracted by:	<p style="font-weight: bold;">N/A</p>	Automated Plot:	<p style="font-weight: bold;">N/A</p>
Verification by:	<p style="font-weight: bold;">Atlantic Hydrographic Branch Personnel</p>		
Soundings in:	<p style="color: red; font-weight: bold;">Feet Meters at MLLW</p>		
Remarks: <i>Red, bold, italic notes in descriptive report were made during office processing.</i> 1) All Times are UTC. 2) This is a Navigable Area Hydrographic Survey. 3) Projection is <i>NAD-83 UTM Zone 16</i> .			

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DESCRIPTIVE REPORT

To accompany
HYDROGRAPHIC SURVEY H11513

Scale of Survey: 1:10,000
Year of Survey: 2005
NOAA Ship THOMAS JEFFERSONS222
CAPT Emily B. Christman, Commanding

A. AREA SURVEYED

This hydrographic survey was conducted in accordance with Hydrographic Survey Letter Instructions* for project OPR-J323-TJ-05, Approaches to Gulfport, MS. The original instructions are dated September 7, 2005.

This Descriptive Report pertains to sheet "A" of project OPR-J323-TJ-05. The assigned registry number for this sheet is H11513, as prescribed in the Letter Instructions. *Concur.*

This project is part of NOAA's response effort to Hurricane Katrina. The Approaches to Gulfport, MS are critical for shipment of fuel and supplies to support the relief efforts in the areas most impacted by the hurricane. This survey deviated from the Letter Instructions for 100% MBES coverage requirements via a phone call with HSD. THOMAS JEFFERSON was allowed to acquire 200 % side scan coverage for the purposes of the survey. These changes were to aid in searching for obstructions, shoaling and other dangers to navigation that would hinder marine transportation to Gulfport.

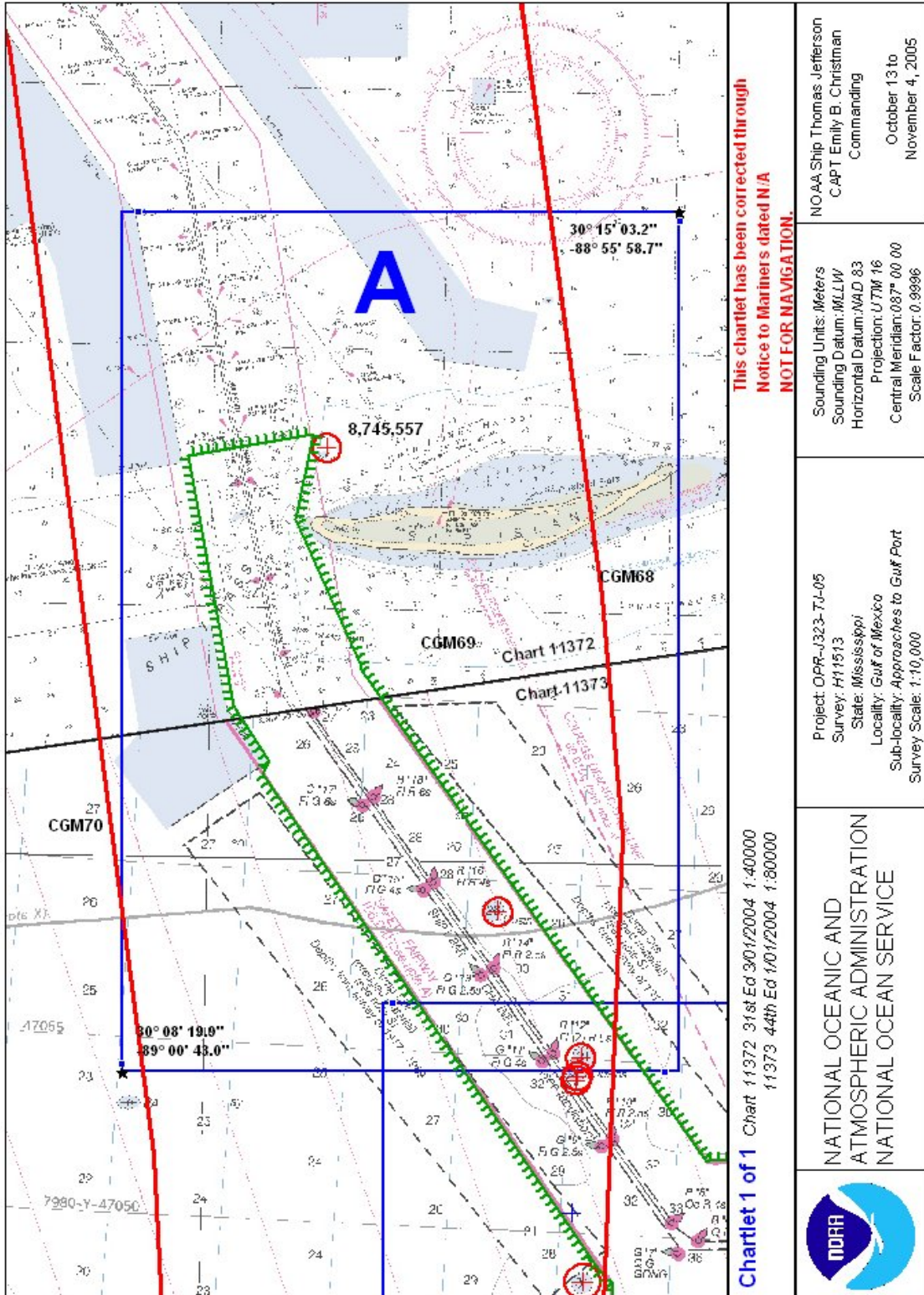
For complete survey limits, see the chartlet on the following page.

A.2. Statistics


The following area was surveyed

- Lineal nautical miles of single beam only sounding lines – mainscheme only = N/A
- Lineal nautical miles of multibeam only sounding lines – mainscheme only = 571.10
- Lineal nautical miles of side scan sonar only lines – mainscheme only = 109.16
- Lineal nautical miles of any combination of the above techniques MB +SSS = 660.2
- Lineal nautical miles of crosslines =28.91
- Lineal nautical miles of developments = 11.79
- Lineal nautical miles of shoreline/nearshore investigation = N/A
- Number of bottom samples collected = N/A
- Number of items investigated either as a new development or from AWOIS = 24
- Specific dates of data acquisition= Oct 13-22, Oct 25-27, Oct29-Nov4 2005

**Data filed with original field records.*



**This chartlet has been corrected through
Notice to Mariners dated N/A
NOT FOR NAVIGATION.**

<p>NOAA Ship Thomas Jefferson CAPT Emily B. Christman Commanding October 13 to November 4, 2005</p>	<p>Sounding Units: Meters Sounding Datum: MLLW Horizontal Datum: NAD 83 Projection: UTM 16 Central Meridian: 087° 00 00 Scale Factor: 0.9996</p>	<p>Project: OPR-J323-TJ-05 Survey: H11513 State: Mississippi Locality: Gulf of Mexico Sub-locality: Approaches to Gulf Port Survey Scale: 1:10,000</p>	<p>NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SERVICE</p> 
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Chartlet 1 of 1 Chart 11372 31st Ed 3/01/2004 1:40000
11373 44th Ed 1/01/2004 1:80000

B. DATA ACQUISITION AND PROCESSING

EQUIPMENT *See also the Evaluation Report.*

Data were acquired by NOAA Launch 3101 and Launch 3102. Both launches are 9.5-meter aluminum Jensen vessels.

Launch 3101 acquired Shallow-water multibeam (SWMB) data. A Reson Seabat 8125 multibeam system was used for SWMB hydrography. All positioning and attitude were determined with a TSS POS/MV 320 (version 4) GPS-aided inertial navigation system.

Launch 3102 acquired shallow-water multibeam (SWMB) data and Side Scan Sonar Data (SSS). A Reson SeaBat 8101 multibeam system was used for SWMB hydrography. A Klein 5000 was used for SSS. All positioning and attitude were determined with a TSS POS/MV 320 (version 3) GPS-aided inertial navigation system.

Refer to the Fall Data Acquisition and Processing Reports (DAPR*) effective 26 July 2005 for detailed equipment and vessel configuration information.

**Data filed with original field records.*

QUALITY CONTROL

Side Scan Sonar Quality Control

Daily confidence checks were made by observing the outer ranges of the side scan sonar images. A good check consisted of distinguishing contacts or sand waves across the entire range of the side scan trace. No unusual problems due to refraction were observed. Object detection capability was adequate. *Concur.*

Shallow Water Multibeam Quality Control

There was, on average, a 40cm difference in depth between launch 3101 and 3102 data over flat bottom. It is believed to be the difference in frequency interacting with soft bottom. The difference was within IHO Specifications. Numerous checks were made and it was noticed that soundings on hard objects revealed no differences in depth. See separates for examples.

Refer to this project's DAPR for detailed discussion of SWMB system calibrations, data acquisition, and data processing.

Crosslines

A series of crosslines were acquired within the limits of survey. Base surfaces were examined where cross lines occurred. An independent cross line surface was created overlaying the mainscheme surface at the same color depth scale. The surfaces never exceeded the IHO

standard of 0.5 meters in standard deviation. No changes were observed except at the outside edges of the crossline MB swath. These were attributed to unclean data in the crossline surface that would normally be absorbed into the mainscheme CUBE surfaces and eliminated. Some mainscheme lines crossed over at a favorable angle and were used as crosslines. A total of 28.91 nautical miles (lnm) of cross lines were run, equivalent to 5.06% of the 571.10 nautical miles of main scheme data. Crossline HDCS data and a mainscheme CUBE surface were compared using HIP'S QC report tool to examine the internal consistency of the data; however, since this procedure compares HDCS data to a CUBE surface and not a CUBE surface to a CUBE surface; the results should be reviewed accordingly. There was good general agreement. Std Deviation for 8101 Crossline to mainscheme comparison at its highest was .3m or less. Std Deviation for 8125 Crossline to mainscheme comparison at its highest was .42m or less. See Appendix V* for list of crosslines. *Concur.*

Caris QC Reports were created for all final surfaces and can be found in appendix V (digital submission only). Many of the surfaces had both 8101 and 8125 data. The QC report was generated for the vessel that acquired the crosslines.

Junctions

Junctions were not applicable to this survey. *Concur.*

CORRECTIONS TO ECHO SOUNDING

All methods or instruments used were as described in the project DAPR. A table detailing all sound velocity casts is located in Separate III*.

DATA PROCESSING

The vessel configurations for side scan operations were slightly different than normal. See the DAPR for a full explanation of the side scan processing procedure.

The following CUBE surfaces were created for submission. (With crosslines obtained by the launch indicated) See Appendix V.4.3*.

**Data filed with original field records.*

	8125	8101		8125	8101
H11513_1_40cm	x		H11513_27_40cm		x
H11513_2_40cm	x		H11513_28_40cm	x	x
H11513_3_40cm	x		H11513_29_40cm		x
H11513_4_40cm	x		H11513_30_40cm	x	x
H11513_5_40cm	x		H11513_31_40cm		x
H11513_6_40cm	x		H11513_32_40cm	x	x
H11513_7_40cm	x	x	H11513_33_40cm	x	x
H11513_8_40cm	x		H11513_34_40cm	x	x
H11513_9_40cm	x		H11513_35_40cm		x
H11513_10_40cm	x	x	H11513_36_40cm		x
H11513_11_40cm	x		H11513_37_40cm		x
H11513_12_40cm	x		H11513_38_40cm		x
H11513_13_40cm	x		H11513_39_40cm		x
H11513_14_40cm	x		H11513_40_40cm		x
H11513_15_40cm	x				
H11513_16_40cm	x	x	Combined at 2m		
H11513_17_40cm	x		H11513_1_6_2m (H11513_Area1)		
H11513_18_40cm	x		H11513_7_12_2m (H11513_Area2)		
H11513_19_40cm	x		H11513_13_18_2m (H11513_Area3)		
H11513_20_40cm	x		H11513_19_24_2m (H11513_Area4)		
H11513_21_40cm		x	H11513_26_30_2m (H11513_Area5)		
H11513_22_40cm	x		H11513_31-36_2m (H11513_Area6)		
H11513_23_40cm	x	x	H11513_37-40_2m (H11513_Area7)		
H11513_24_40cm		x			
H11513_25_40cm		x			
H11513_26_40cm	x	x			

C. VERTICAL AND HORIZONTAL CONTROL

VERTICAL CONTROL

The tidal datum for this project is Mean Lower Low Water (MLLW). A Request for Approved Tides letter was sent to N/OPS1 on November 11th 2005. (Appendix IV*).

**Data filed with original field records.*

The project instructions originally called for the Dauphin Island Gage to be used for reducers. Hurricane storm damage prompted Co-Ops to use the 30 day gage at Gulfport Harbor, Mississippi (8745557). The new zoning was received from N/OPS1 CO-OPS on 03 March 2006 and the Verified water Levels were downloaded on the same day. The correctors were applied and merged to all sounding data. **Concur.**

The new zoning used for this survey is as follows:

STATION	CORREC TOR (min)	RATIO	REFERENCE
CGM68	-6	x1.01	8745557
CGM69	0	x1.01	8745557
CGM70	0	x1.00	8745557
CGM531	+12	x1.01	8745557

HORIZONTAL CONTROL

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

Sounding positional control was determined using the Global Positioning System (GPS) corrected by U.S. Coast Guard differential GPS (DGPS) beacon stations. The primary DGPS beacons used for this survey were MOBILE POINT, AL (Refsta ID=26/27, Freq=300) And ENGLISH TURN, LA. (Refsta ID=28/29, Freq=293). No horizontal control stations were established for this survey.

Horizontal dilution of precision (HDOP) was monitored daily on both launches. The Pos/MV is configured to flag bad position data such as HDOP that exceeds 2.5, loss of GPS correctors and satellite coverage. The inertial motion unit will continue to dead reckon providing good position as long as we are on a reasonable track. Survey operations were typically stopped after not more than 20 seconds without correctors or GPS data. If the POS/MV showed poor position before the start of a line then the line would not commence until after the green light (good positioning) would occur. This procedure was maintained throughout the survey.

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

CHART COMPARISON *See also the Evaluation Report.*

There are seven charts that encompass this area. Charts 11372 and 11373 were most affected by this survey.

11372_1	31st edition	03/01/2004	1:40,000
11373_1	44th edition	01/01/2004	1:80,000
11366_1	9 th edition,	03/01/2005	1: 250,000
1115A_1	41 st edition	03/01/2005	1:456394
11360_1	41 st edition	03/01/2005	1:456394
11006_1	32 nd edition	08/01/2005	1:875000
411_1	50 th edition	09/01/2005	1:2160000

General Agreement with Charted soundings

Sounding data was in good agreement with charted depths on chart 11373 south of Ship Island Pass. On charts 11372 and 11373 in the vicinity of Ship Island Pass, Ship Island Bar, and West Point, there have been significant changes to shoals and depths. Shoaling was evident at several locations in the Ship Island Bar channel.

Chart 11372 and the ENC US5MS11M and US4MS12M depicts the channel limits and range line appropriately. The range line is depicted on the ENC on the left side of the right outside quarter and was probably intended to do so. However, a major discrepancy was found on raster Chart 11373_1. For Ship Bar Channel, the eastern channel limits, range line, and fore and aft range beacons are improperly charted. The surveyed soundings reveal the actual extents of the channel. If the range line is followed on raster chart 11373 a vessel would be running up the eastern edge of the dredged channel. The western edge of the channel appears to be more accurately charted. This was taken for action by Navigation Services Division Nov. 7, 2005. See Appendix V., "Discrepancy in channel Limits". Discrete differences are addressed in Appendix I, "Item Investigations and Charted Features." ¹ *Do not concur, see Evaluation and Analysis (E&A) Report.*

The Army Corps of Engineers dredge McFARLAND arrived in Gulfport on November 3 to begin maintenance dredging of the Gulfport Channel and Ship Island Bar Channel. In a conversation on November 4, officials of the Mississippi State Port Authority at Gulfport indicated dredging is conducted every 16 months and takes about 3 months to complete. Post-dredge surveys are expected to negate these findings within approximately 4 months. See Email Add-on April 1 2006 in Appendix V. *See also the Evaluation Report.*

Dangers to Navigation *See also the Evaluation Report.*

Two Dangers to Navigation were submitted Nov 11, 2005. ¹

19 ft sounding at 30°12'35.076", -088°59'34.283

25 ft OBSTN at 30°09'41.756", -088°57'56.681

AWOIS Items and Significant Contacts

There were two AWOIS items within the survey limits. Results can be found in Appendix I, Item Investigations and Charted Features. *Concur.*

¹ Appendix I, "Item Investigations and Charted Features"

Charted Features

All point features are addressed in the Appendix I, Item Investigations and Dangers to Navigation sections. *Concur.*

Charting Recommendations

The hydrographer recommends confirming the position and status of the channel limits and buoys with the Army Corps of Engineers and the U.S. Coast Guard, and updating charts 11372, 11373, and the corresponding electronic charts for accuracy and consistency. This survey is adequate to supersede charted bathymetry. *Concur.*

Dredging was in progress at the time of survey. Post dredge surveys will supersede H11513 in common areas. *See also the Evaluation Report.*

ADDITIONAL RESULTS

Aids to Navigation and Other Detached Positions

All of the aids to navigation were verified by either Klein 5000 side scan sonar or Reson 8125 or 8101 multibeam echosounder. No detached positions were taken on this survey. *Concur.*

Bridges and Overhead Cables

There were no overhead cables or bridges in this survey. *Concur.*

Submarine Cables and Pipelines

There were no charted submarine cables or pipelines positioned during this survey, nor were any images of these items acquired on SSS. *Concur.*

Prior Surveys

A comparison with prior surveys was not required for this survey. *Concur.*

E. APPROVAL SHEET

OPR-J323-TJ-05
Gulf of Mexico
Mississippi

Approaches to Gulfport
Survey Registry No. H11513

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 in association with this descriptive report has been a series of reports and data:

- OPR-J323-TJ-05 Horizontal and Vertical control report ((effective date July 26, 2005)
- Fall Hydrographic Systems Certification report (effective date July 26, 2005)
- Fall Data Acquisition and Processing Report. (effective date July 26, 2005)

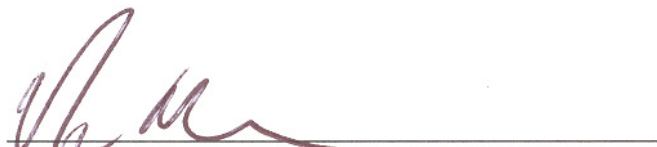
Respectfully,

Submitted:



Peter G. Lewit
Senior Survey Technician

Approved and Forwarded:



LT Marc S. Moser, NOAA
Field Operations Officer



CAPT Emily B. Christman, NOAA
Commanding Officer

H11513 Features Report

Registry Number: H11513
State: Mississippi
Locality: Gulf of Mexico
Sub-locality: Approaches to Gulfport
Project Number: OPR-J323-TJ-05
Survey Dates: 10/13/2005 - 10/16/2005

Charts Affected

Number	Version	Date	Scale
11372	32nd Ed.	02/01/2006	1:40000
11373	45th Ed.	02/01/2006	1:80000
11366	10th Ed.	05/01/2006	1:250000
1115A	41st Ed.	03/01/2005	1:456394
11360	41st Ed.	03/01/2005	1:456394
11006	32nd Ed.	08/01/2006	1:875000
411	51st Ed.	12/01/2006	1:2160000

Features

No.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	1 DToN 2	Shoal	5.82 m	030° 12' 35.076" N	88° 59' 34.283" W	---
1.2	2 DToN 1	Obstruction	7.64 m	030° 09' 41.756" N	88° 57' 56.681" W	---

1.1) Profile/Beam - 2054/93 from h11513 / tj_3102_reson8101 / 2005-286 / 659_1702

DANGER TO NAVIGATION

Survey Summary

Survey Position: 030° 12' 35.076" N, 88° 59' 34.283" W
Least Depth: 5.82 m
Timestamp: 2005-286.17:05:56.869 (10/13/2005)
Survey Line: h11513 / tj_3102_reson8101 / 2005-286 / 659_1702
Profile/Beam: 2054/93
Charts Affected: 11372_1, 11373_1, 11366_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Edge of shoaling off of West Point. second look at bathy data shows no contact in vicinity. Item covered by 200% Klein 5000 SSS and 100% Reson 8101 MBES. Danger to Navigation sent Nov 11,2005

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11513/tj_3102_reson8101/2005-286/659_1702	2054/93	0.00	000.0	Primary

Hydrographer Recommendations

Chart depths per digital data between channel and West Point. DtoN was submitted Nov 11, 2005.

Cartographically-Rounded Depth (Affected Charts):

19ft (11372_1, 11373_1)
 3fm (1115A_1, 11360_1, 11006_1, 411_1)
 3fm 1ft (11366_1)

S-57 Data

Geo object 1: Sounding (SOUNDG)
Attributes: EXPSOU - 2:shoaler than range of depth of the surrounding depth area
 OBJNAM - Shoal
 QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 3:found by multi-beam

VERDAT - 12:Mean lower low water

Office Notes

Concur w/clarification. The shoal sounding least depth of 19 ft. is already shown on chart 11372, 32nd Ed. Feb 01/06. Retain as charted.

1.2) Profile/Beam - 1507/191 from h11513 / tj_3101_reson8125 / 2005-289 / 425_1726

DANGER TO NAVIGATION

Survey Summary

Survey Position: 030° 09' 41.756" N, 88° 57' 56.681" W
Least Depth: 7.64 m
Timestamp: 2005-289.17:30:57.308 (10/16/2005)
Survey Line: h11513 / tj_3101_reson8125 / 2005-289 / 425_1726
Profile/Beam: 1507/191
Charts Affected: 11373_1, 11366_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

11/02/2005 - contact noted in bathy data approx 2.5 meters of height. Item covered by 100% Klein 5000 SSS and 100% Reson 8125 and 8101 MBES. Danger to Navigation sent Nov 11,2005. This item is on the edge of the Physical dredged part of channel.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11513/tj_3101_reson8125/2005-289/425_1726	1507/191	0.00	000.0	Primary
h11513/tj_3102_klein5000_sss100/2005-286/762_1527	0002	4.91	119.1	Secondary

Hydrographer Recommendations

Dton's were submitted Nov 11, 2005. Chart as per digital data unless subsequent dredge survey supercedes. Enhance Charted Danger Circle around DTON #1 to encompass both Obstns. Change Text To Obstns. (See page 18, 2.7) 15 Obstn Possible dton).

Cartographically-Rounded Depth (Affected Charts):

25ft (11373_1)
 4fm (1115A_1, 11360_1, 11006_1, 411_1)
 4fm 1ft (11366_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: CATOBS - 7:foul ground
INFORM - Obstruction at edge of channel
NATCON - 7:metal
QUASOU - 6:least depth known
STATUS - 1:permanent
TECSOU - 3:found by multi-beam
VALSOU - 7.639 m
VERDAT - 12:Mean lower low water

Office Notes

Concur with clarification. Current edition of the chart has the dangerous 25 Obstn properly charted at Latitude 30°09'41.756"N, Longitude 088°57'56.681"W.. This obstruction has been added to the continual maintenance raster dated August 20, 2006.

Survey H11513 Ship Bar Island Channel data has been superseded by subsequent ACOE dredging activity. Obstn was not removed from the chart after the last dredging operations. Submit to US Army Corps of Engineers (USACOE) and Nav Manager for further investigation and update of status from the USACOE. Defer to MCD Update Services Branch for charting recommendations in controlled channels. See also the E&A Report.

H11513 Features Report

Registry Number: H11513
State: Mississippi
Locality: Gulf of Mexico
Sub-locality: Approaches to Gulfport
Project Number: OPR-J323-TJ-05
Survey Dates: 10/26/2005 - 03/15/2006

Charts Affected

Number	Version	Date	Scale
11372	32nd Ed.	02/01/2006	1:40000
11373	45th Ed.	02/01/2006	1:80000
11366	10th Ed.	05/01/2006	1:250000
1115A	41st Ed.	03/01/2005	1:456394
11360	41st Ed.	03/01/2005	1:456394
11006	32nd Ed.	08/01/2006	1:875000
411	51st Ed.	12/01/2006	1:2160000

Features

No.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	3 AWOIS 13334	Wreck	4.47 m	030° 13' 10.849" N	88° 59' 01.448" W	13334
1.2	4 AWOIS 8619	Shoal	[None]	030° 09' 37.378" N	88° 57' 27.648" W	8619

1.1) Profile/Beam - 347/8 from h11513 / tj_3102_reson8101 / 2005-299 / 355_2055

Primary Feature for AWOIS Item #13334

Search Position: 030° 13' 11.000" N, 88° 59' 01.700" W
Historical Depth: [None]
Search Radius: 200
Search Technique: S2, MB, ES, SD, DI
Technique Notes: [None]

History Notes:

NM77/1992--A 50 FOOT FISHING VESSEL WAS REPORTED SUNK NEAR GULFPORT CHANNEL IN POSITION LAT. 30/13/11N LONG. 088/59/01.7W (NAD 83). ENTERED 9/7/05 BY JCA

Survey Summary

Survey Position: 030° 13' 10.849" N, 88° 59' 01.448" W
Least Depth: 4.47 m
Timestamp: 2005-299.20:55:37.977 (10/26/2005)
Survey Line: h11513 / tj_3102_reson8101 / 2005-299 / 355_2055
Profile/Beam: 347/8
Charts Affected: 11372_1, 11373_1, 11366_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

11/02/2005 - least depth on contact (probably charted wreck). Item covered by 100% and 200% Klein 5000 SSS and 100% Reson 8101 and 8125 MBES developments.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11513/tj_3102_reson8101/2005-299/355_2055	347/8	0.00	000.0	Primary
h11513/tj_3102_klein5000_sss100/2005-287/750_1416	0002	1.87	187.5	Secondary
h11513/tj_3102_klein5000_sss200/2005-300/227_1930	0001	6.21	345.8	Secondary (grouped)
OPR-J323	AWOIS # 13334	8.20	124.6	Secondary (grouped)
h11513/tj_3102_klein5000_sss100/2005-287/750_1416	0003	8.36	324.6	Secondary (grouped)
h11513/tj_3102_klein5000_sss100/2005-287/750_1416	0001	22.70	275.1	Secondary (grouped)

Hydrographer Recommendations

Chart as per digital data.

Cartographically-Rounded Depth (Affected Charts):

14ft (11372_1, 11373_1)

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

2fm 2ft (11366_1)

S-57 Data

Geo object 1: Wreck (WRECKS)

Attributes: CATWRK - 2:dangerous wreck

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

VALSOU - 4.469 m

WATLEV - 3:always under water/submerged

Office Notes

Concur with clarification. Delete the dangerous sunken Wreck, least depth unknown, and text PA in Latitude 30°13'11.00"N, Longitude 88°59'01.70"W Chart a dangerous sunken wreck, least depth of 14 feet, in Latitude 30°13'10.849"N, Longitude 88°59'01.448"W.

1.2) Contact/Point - 0001/1 from h11513 / tj_3102_klein5000_sss100 / 2005-286 / 767_2009

Primary Feature for AWOIS Item #8619

Search Position: 030° 09' 37.380" N, 88° 57' 27.630" W
Historical Depth: 7.89 m
Search Radius: 200
Search Technique: S2, MB, ES, SD, DI
Technique Notes: [None]

History Notes:

HISTORY FE335/89-- OPR-J433-RU; WHILE SEARCHING FOR AWOIS NO. 4754 AN OBSTRUCTION WAS LOCATED BY SIDE SCAN SONAR (CONTACT # 5436.29S). DIVERS DESCRIBE A 4 X 4 X 4 FOOT STEEL BOX PARTIALLY BURIED, PROTRUDING 3 FEET OFF THE BOTTOM. LD OF 25.9 FEET (PNEUMATIC DEPTH GAUGE) IN LAT. 30-09-37.38N, LONG. 88-57-27.63W. LORAN-C RATES (7980 CHAIN): W = 12192.3; X = 29389.0; Y = 47058.9; Z = 64058.5. NOTE: THE INFORMATION GIVEN IN AWOIS ITEMS 8616 - 8619 WAS NOT REPORTED TO THE COAST GUARD FOR LNM. THIS WAS BECAUSE THE LD'S WERE INSIGNIFICANT IN RELATION TO THE CURRENTLY CHARTED HYDROGRAPHY. FUTURE UPDATING OF CHARTED DEPTHS WOULD REQUIRE A REASSESSMENT OF THE SIGNIFICANCE OF THESE ITEMS. (ENT 7/1/93, SJV)

Survey Summary

Survey Position: 030° 09' 37.378" N, 88° 57' 27.648" W
Least Depth: [None]
Timestamp: 2006-074.03:26:36 (03/15/2006)
Survey Line: h11513 / tj_3102_klein5000_sss100 / 2005-286 / 767_2009
Contact/Point: 0001/1
Charts Affected: 11373_1, 11366_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Disproval of AW8619. Item covered with 100% SSS Klein 5000 and 100% Reson 8101 MBES. The item was originally found by the Rude as a 4x4 x4 steel box . The depth reported at that time was 26 feet. Current survey indicates depths 29 to 30 feet. Item covered by 100% Klein 5000 SSS and 100% Reson 8125 MBES.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11513/tj_3102_klein5000_sss100/2005-286/767_2009	0001	0.00	000.0	Primary
ChartGPs - ENC US4MS12M	Danger 1	0.49	267.4	Secondary (grouped)

OPR-J323	AWOIS # 8619	0.50	263.1	Secondary (grouped)
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Hydrographer Recommendations

Remove Charted 26 foot Obstn. Chart as per digital data.

S-57 Data

[None]

Office Notes

Concur with clarification. Update the AWOIS database listing for AWOIS #8619 as disproven. Delete the charted dangerous Obstn, least depth 26 feet, in Latitude 30°09'37.38"N, Longitude 88°57'27.65"W. Chart present survey soundings in the common area.

H11513 Features Report

Registry Number: H11513
State: Mississippi
Locality: Gulf of Mexico
Sub-locality: Approaches to Gulfport
Project Number: OPR-J323-TJ-05
Survey Dates: 10/15/2005 - 10/26/2005

Charts Affected

Number	Version	Date	Scale
11372	32nd Ed.	02/01/2006	1:40000
11373	45th Ed.	02/01/2006	1:80000
11366	10th Ed.	05/01/2006	1:250000
1115A	41st Ed.	03/01/2005	1:456394
11360	41st Ed.	03/01/2005	1:456394
11006	32nd Ed.	08/01/2006	1:875000
411	51st Ed.	12/01/2006	1:2160000

Features

No.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	5 R "20" Buoy	Red buoy, lighted	[None]	030° 11' 08.312" N	88° 59' 06.042" W	---
1.2	0001 Ship Island Pass Range Front Light	SSS	[None]	030° 12' 09.242" N	89° 00' 00.242" W	---
1.3	6 SND	Shoal	3.45 m	030° 12' 38.666" N	88° 59' 19.111" W	---

1.1) Contact/Point - 0002/1 from h11513 / tj_3102_klein5000_sss100 / 2005-286 / 710_2140

Survey Summary

Survey Position: 030° 11' 08.312" N, 88° 59' 06.042" W
Least Depth: [None]
Timestamp: 2005-298.04:45:38 (10/25/2005)
Survey Line: h11513 / tj_3102_klein5000_sss100 / 2005-286 / 710_2140
Contact/Point: 0002/1
Charts Affected: 11373_1, 11366_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Charted symbol for Buoy R "20" is 75 meters away from edge of channel. The channel limits are depicted incorrectly on chart 11373_1. The Coast Guard should be contacted to assess the buoy position in relation to actual depth of channel. The current soundings range from 27 to 31 feet between buoy and channel. The current chart position would have a vessel transit in water 3-5 feet shoaler than tabulated. Item covered by 100% Klein 5000 SSS and 100% Reson 8125 MBES.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11513/tj_3102_klein5000_sss100/2005-286/710_2140	0002	0.00	000.0	Primary
ChartGPs - ENC US4MS12M	AToN 4	2.25	238.6	Secondary
h11513/tj_3102_klein5000_sss100/2005-286/710_2140	0001	8.37	071.5	Secondary (grouped)

Hydrographer Recommendations

Confirm proper buoy position with U.S. Coast Guard.

S-57 Data

Geo object 1: Buoy, lateral (BOYLAT)
Attributes: BOYSHP - 4:pillar
 CATLAM - 2:starboard-hand lateral mark
 COLOUR - 3:red
Geo object 2: Light (LIGHTS)
Attributes: COLOUR - 3:red
 LITCHR - 4:quick-flashing

STATUS - 1:permanent

Office Notes

Buoy surveyed location falls on charted position on chart 11373. Defer to Marine Chart Division (MCD) Nautical Data Branch, Source Data Unit for final charting disposition of Aids to Navigation.

1.2) Contact/Point - 0001/1 from h11513 / tj_3102_klein5000_sss100 / 2005-287 / 722_1807

Survey Summary

Survey Position: 030° 12' 09.242" N, 89° 00' 00.242" W
Least Depth: [None]
Timestamp: 2005-288.05:17:36 (10/15/2005)
Survey Line: h11513 / tj_3102_klein5000_sss100 / 2005-287 / 722_1807
Contact/Point: 0001/1
Charts Affected: 11372_1, 11373_1, 11366_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Contact at SE Spit Light as charted Chart 11373 incorrectly positions FWD Range Beacon and the range line. Chart 11372 and ENC US5MS11M have a more accurate position in comparison to the surveyed soundings of the dredged channel. The current position of the Range line on chart 11373 would actually be covering the eastern edge of the dredged channel according to surveyed soundings. Nav services contacted Nov 7 2005. Chart is still not up to date.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11513/tj_3102_klein5000_sss100/2005-287/722_1807	0001	0.00	000.0	Primary
ChartGPs - ENC US5MS11M	AToN 1	1.80	319.6	Secondary (grouped)
h11513/tj_3102_klein5000_sss200/2005-300/211_1740	0001	3.07	232.4	Secondary

Hydrographer Recommendations

Coordinate with ACOE and USCG to define the location of the range line within the actual dredged limits. On chart 11373

S-57 Data

[None]

Office Notes

Do not concur. Required data was not obtained nor did the hydrographer properly discuss this AtoN in the DR. No lower range DP was obtained, no DP was taken on this AtoN, and the SSS contact location is within 10m (chart 11372) and 25m (chart 11373) of the charted location. Defer to Marine Chart Division (MCD), Nautical Data

Branch, Source Data Unit for final charting disposition concerning Aids to Navigation.

1.3) Profile/Beam - 224/16 from h11513 / tj_3102_reson8101 / 2005-299 / 352_2027

Survey Summary

Survey Position: 030° 12' 38.666" N, 88° 59' 19.111" W
Least Depth: 3.45 m
Timestamp: 2005-299.20:27:41.300 (10/26/2005)
Survey Line: h11513 / tj_3102_reson8101 / 2005-299 / 352_2027
Profile/Beam: 224/16
Charts Affected: 11372_1, 11373_1, 11366_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Disproval of charted 22' Shoal(rep 1987). This is not charted on the ENC. Item covered by 100% Klein 5000 SSS and 100% Reson 8101 MBES.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11513/tj_3102_reson8101/2005-299/352_2027	224/16	0.00	000.0	Primary
ChartGPs - Digitized	1	4.58	151.4	Secondary (grouped)

Hydrographer Recommendations

Remove Charted Text "Shl to 22 ft 1987" from Chart 11372. Remove "Shl Rep 1987" from 11373. Chart as per digital data.

Cartographically-Rounded Depth (Affected Charts):

11ft (11372_1, 11373_1)

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

1fm 5ft (11366_1)

S-57 Data

Geo object 1: Sounding (SOUNDG)
Attributes: QUASOU - 1:depth known
 STATUS - 1:permanent
 TECSOU - 3:found by multi-beam

Office Notes

Concur with clarification. Remove the charted text "Shl to 22 ft (1987)" from chart 11372 in Latitude 30° 12' 38.66N, Longitude 88° 59' 19.11W. Remove the charted text "Shl Rep 1987" from chart 11373 in Latitude 30° 12' 42.11N, Longitude 88° 59' 15.97W. Chart present survey soundings in the common area.

H11513 Features Report

Registry Number: H11513
State: Mississippi
Locality: Gulf of Mexico
Sub-locality: Approaches to Gulfport
Project Number: OPR-J323-TJ-05
Survey Dates: 10/16/2005 - 10/29/2005

Charts Affected

Number	Version	Date	Scale
11372	32nd Ed.	02/01/2006	1:40000
11373	45th Ed.	02/01/2006	1:80000
11366	10th Ed.	05/01/2006	1:250000
1115A	41st Ed.	03/01/2005	1:456394
11360	41st Ed.	03/01/2005	1:456394
11006	32nd Ed.	08/01/2006	1:875000
411	51st Ed.	12/01/2006	1:2160000

Features

No.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	11 SND	Shoal	9.00 m	030° 10' 22.317" N	88° 58' 30.254" W	---
1.2	1120/11	Obstruction	7.21 m	030° 11' 09.183" N	88° 59' 20.884" W	---
1.3	12 Obstn	Obstruction	7.91 m	030° 12' 46.562" N	88° 59' 28.442" W	---
1.4	13 Obstn	Obstruction	6.16 m	030° 10' 51.120" N	88° 59' 20.460" W	---
1.5	17 SND	Shoal	10.28 m	030° 08' 51.149" N	88° 57' 17.632" W	---
1.6	18 SND	Shoal	3.86 m	030° 12' 37.849" N	88° 59' 26.921" W	---
1.7	20 SND	Shoal	4.32 m	030° 12' 33.076" N	88° 59' 57.119" W	---
1.8	21 SND	Shoal	4.47 m	030° 12' 49.082" N	88° 59' 49.964" W	---

1.1) Profile/Beam - 1856/141 from h11513 / tj_3101_reson8125 / 2005-292 / 431_1524

Survey Summary

Survey Position: 030° 10' 22.317" N, 88° 58' 30.254" W
Least Depth: 9.00 m
Timestamp: 2005-292.15:26:29.073 (10/19/2005)
Survey Line: h11513 / tj_3101_reson8125 / 2005-292 / 431_1524
Profile/Beam: 1856/141
Charts Affected: 11373_1, 11366_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Soundings are 4 feet shoaler than 33 foot controlling depth, Right outside quarter. Item covered by 100% Klein 5000 SSS and 100% Reson 8125 MBES.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11513/tj_3101_reson8125/2005-292/431_1524	1856/141	0.00	000.0	Primary

Hydrographer Recommendations

Chart as per digital data unless subsequent dredge survey supercedes.

Cartographically-Rounded Depth (Affected Charts):

29ft (11373_1)

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

4fm 5ft (11366_1)

S-57 Data

Geo object 1: Sounding (SOUNDG)
Attributes: QUASOU - 1:depth known
 STATUS - 1:permanent
 TECSOU - 3:found by multi-beam

Office Notes

Concur with clarification. The sounding feature described by the field is located on the edge of the Ship Island Bar Channel and not in the controlled channel itself. Chart present survey soundings in common areas.

1.2) Profile/Beam - 1120/11 from h11513 / tj_3101_reson8125 / 2005-294 / 281_1330

Survey Summary

Survey Position: 030° 11' 09.183" N, 88° 59' 20.884" W
Least Depth: 7.21 m
Timestamp: 2005-294.13:31:37.349 (10/21/2005)
Survey Line: h11513 / tj_3101_reson8125 / 2005-294 / 281_1330
Profile/Beam: 1120/11
Charts Affected: 11373_1, 11366_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Sounding shoaler than charted depth. Chart has sparse depths.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11513/tj_3101_reson8125/2005-294/281_1330	1120/11	0.00	000.0	Primary
h11513/tj_3101_reson8125/2005-294/280_1321	6983/1	1.84	083.8	Secondary

Hydrographer Recommendations

Chart as per digital depth.

Cartographically-Rounded Depth (Affected Charts):

23ft (11373_1)

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

3fm 5ft (11366_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)
Attributes: QUASOU - 6:least depth known
 STATUS - 1:permanent
 TECSOU - 2,3:found by side scan sonar,found by multi-beam
 VALSOU - 7.213 m
 VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

Do not concur. Chart a dangerous Obstrn with a depth of 23 ft. in Latitude 30°11'09.183"N, Longitude 88°59'20.884"W.

1.3) Profile/Beam - 128/98 from h11513 / tj_3102_reson8101 / 2005-299 / 328_2038

Survey Summary

Survey Position: 030° 12' 46.562" N, 88° 59' 28.442" W
Least Depth: 7.91 m
Timestamp: 2005-299.20:38:24.940 (10/26/2005)
Survey Line: h11513 / tj_3102_reson8101 / 2005-299 / 328_2038
Profile/Beam: 128/98
Charts Affected: 11372_1, 11373_1, 11366_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Man made object sitting in scour. 11/02/2005 - bathy data indicates contact approx 8m in length, 1m in height and rectangular. Item covered by 200% Klein 5000 SSS and 100% Reson 8101 MBES.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11513/tj_3102_reson8101/2005-299/328_2038	128/98	0.00	000.0	Primary
h11513/tj_3102_klein5000_sss100/2005-287/742_1454	0003	1.20	118.2	Secondary (grouped)
h11513/tj_3102_klein5000_sss200/2005-300/213_1843	0001	4.32	190.1	Secondary (grouped)
h11513/tj_3102_reson8101/2005-302/674_1710	136/9	5.28	190.5	Secondary (grouped)
h11513/tj_3102_klein5000_sss100/2005-287/742_1454	0002	16.50	059.3	Secondary (grouped)
h11513/tj_3102_klein5000_sss100/2005-287/742_1454	0001	24.00	083.5	Secondary (grouped)

Hydrographer Recommendations

Chart as per digital data

Cartographically-Rounded Depth (Affected Charts):

26ft (11372_1, 11373_1)

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

4fm 2ft (11366_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: QUASOU - 1:depth known
TECSOU - 2,3:found by side scan sonar,found by multi-beam
VALSOU - 7.914 m
VERDAT - 12:Mean lower low water
WATLEV - 3:always under water/submerged

Office Notes

Concur w/clarification. Chart a dangerous Obstrn with a depth of 26 ft. in Latitude 30°12'46.562"N, Longitude 88°59'28.442"W.

1.4) Profile/Beam - 4588/222 from h11513 / tj_3101_reson8125 / 2005-294 / 296_1549

Survey Summary

Survey Position: 030° 10' 51.120" N, 88° 59' 20.460" W
Least Depth: 6.16 m
Timestamp: 2005-294.15:53:52.969 (10/21/2005)
Survey Line: h11513 / tj_3101_reson8125 / 2005-294 / 296_1549
Profile/Beam: 4588/222
Charts Affected: 11373_1, 11366_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Item found, looks man made. Item covered by 100% Klein 5000 SSS and 200% Reson 8101and 8125 MBES.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11513/tj_3101_reson8125/2005-294/296_1549	4588/222	0.00	000.0	Primary
h11513/tj_3102_klein5000_sss100/2005-287/704_1914	0001	2.28	016.1	Secondary (grouped)
h11513/tj_3102_klein5000_sss100/2005-287/704_1914	0002	2.98	017.1	Secondary (grouped)

Hydrographer Recommendations

Chart as per digital data.

Cartographically-Rounded Depth (Affected Charts):

20ft (11373_1)

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

3fm 2ft (11366_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)
Attributes: QUASOU - 6:least depth known
 TECSOU - 3:found by multi-beam
 VALSOU - 6.158 m
 VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged
Geo object 2: Sounding (SOUNDG)
Attributes: QUASOU - 1:depth known
TECSOU - 2,3:found by side scan sonar,found by multi-beam

Office Notes

Concur w/clarification. Chart a dangerous Obstrn with a depth of 20 ft. in Latitude 30°10'51.12"N, Longitude 88°59'20.46"W.

1.5) Profile/Beam - 41/6 from h11513 / tj_3101_reson8125 / 2005-289 / 421_1529

Survey Summary

Survey Position: 030° 08' 51.149" N, 88° 57' 17.632" W
Least Depth: 10.28 m
Timestamp: 2005-289.15:29:33.997 (10/16/2005)
Survey Line: h11513 / tj_3101_reson8125 / 2005-289 / 421_1529
Profile/Beam: 41/6
Charts Affected: 11373_1, 11366_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Soundings shoaler than 37.1 controlling depth, Middle Half. Item covered by 100% Klein 5000 SSS and Reson 8125 MBES.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11513/tj_3101_reson8125/2005-289/421_1529	41/6	0.00	000.0	Primary

Hydrographer Recommendations

Chart as per digital data unless subsequent dredge survey supercedes.

Cartographically-Rounded Depth (Affected Charts):

33ft (11373_1)
 5 ½fm (1115A_1, 11360_1, 11006_1, 411_1)
 5fm 3ft (11366_1)

S-57 Data

Geo object 1: Sounding (SOUNDG)
Attributes: QUASOU - 1:depth known
 TECSOU - 3:found by multi-beam

Office Notes

Concur with clarification. This sounding, least depth 33 ft. in Latitude 30°08'51.15"N, Longitude 88°57'17.63"W, is in the federally maintained Ship Island Bar Channel. The Ship Island Bar Channel controlling depths are presently tabulated from ACOE Surveys of July 2006 to May of 2006 which supersede Survey H11513 sounding data. Defer final charting disposition to Marine Chart Division, Nautical Data Branch, Source Data Unit.

1.6) Profile/Beam - 209/18 from h11513 / tj_3102_reson8101 / 2005-299 / 112_1834

Survey Summary

Survey Position: 030° 12' 37.849" N, 88° 59' 26.921" W
Least Depth: 3.86 m
Timestamp: 2005-299.18:34:51.351 (10/26/2005)
Survey Line: h11513 / tj_3102_reson8101 / 2005-299 / 112_1834
Profile/Beam: 209/18
Charts Affected: 11372_1, 11373_1, 11366_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Evidence of shoaling found between charted depths. Item covered by 100% Klein 5000 SSS and 100% Reson 8101 MBES.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11513/tj_3102_reson8101/2005-299/112_1834	209/18	0.00	000.0	Primary

Hydrographer Recommendations

Chart as per digital data.

Cartographically-Rounded Depth (Affected Charts):

12ft (11372_1, 11373_1)

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

2fm 0ft (11366_1)

S-57 Data

Geo object 1: Sounding (SOUNDG)
Attributes: QUASOU - 1:depth known
 TECSOU - 3:found by multi-beam

Concur with clarification. Chart a shoal sounding with a least depth of 12 ft. in Latitude 30° 12' 39.914" N, 88° 59' 26.730" W Longitude and add the text "Shl" to the raster in the vicinity of Latitude 30°12'39.79"N, Longitude 88°59'29.37"W.

1.7) Profile/Beam - 7907/5 from h11513 / tj_3102_reson8101 / 2005-300 / 207_1637

Survey Summary

Survey Position: 030° 12' 33.076" N, 88° 59' 57.119" W
Least Depth: 4.32 m
Timestamp: 2005-300.16:49:00.502 (10/27/2005)
Survey Line: h11513 / tj_3102_reson8101 / 2005-300 / 207_1637
Profile/Beam: 7907/5
Charts Affected: 11372_1, 11373_1, 11366_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Shoaling found between charted depths. Item covered by 100% Klein 5000 SSS and 100% Reson 8101 MBES.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11513/tj_3102_reson8101/2005-300/207_1637	7907/5	0.00	000.0	Primary

Hydrographer Recommendations

Chart as per digital data.

Cartographically-Rounded Depth (Affected Charts):

14ft (11372_1, 11373_1)

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

2fm 2ft (11366_1)

S-57 Data

Geo object 1: Sounding (SOUNDG)
Attributes: QUASOU - 1:depth known
 TECSOU - 3:found by multi-beam

Office Notes

Concur with clarification. Chart representative shoal soundings and add the text "Shl" to the raster in the vicinity of Latitude 30°12'33.08"N, Longitude 88°59'57.12"W.

1.8) Profile/Beam - 1039/100 from h11513 / tj_3102_reson8101 / 2005-302 / 749_1408

Survey Summary

Survey Position: 030° 12' 49.082" N, 88° 59' 49.964" W
Least Depth: 4.47 m
Timestamp: 2005-302.14:10:08.935 (10/29/2005)
Survey Line: h11513 / tj_3102_reson8101 / 2005-302 / 749_1408
Profile/Beam: 1039/100
Charts Affected: 11372_1, 11373_1, 11366_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Shoaling found between charted depths. Item covered by 100% Klein 5000 SSS and 100% Reson 8101 MBES.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11513/tj_3102_reson8101/2005-302/749_1408	1039/100	0.00	000.0	Primary

Hydrographer Recommendations

Chart as per digital data.

Cartographically-Rounded Depth (Affected Charts):

14ft (11372_1, 11373_1)

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

2fm 2ft (11366_1)

S-57 Data

Geo object 1: Sounding (SOUNDG)
Attributes: QUASOU - 1:depth known
 TECSOU - 3:found by multi-beam

Office Notes

Concur with clarification. Chart representative shoal soundings and add the text "Shl" to the raster in the vicinity of Latitude 30°12'49.08"N, Longitude 88°59'49.96"W.



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



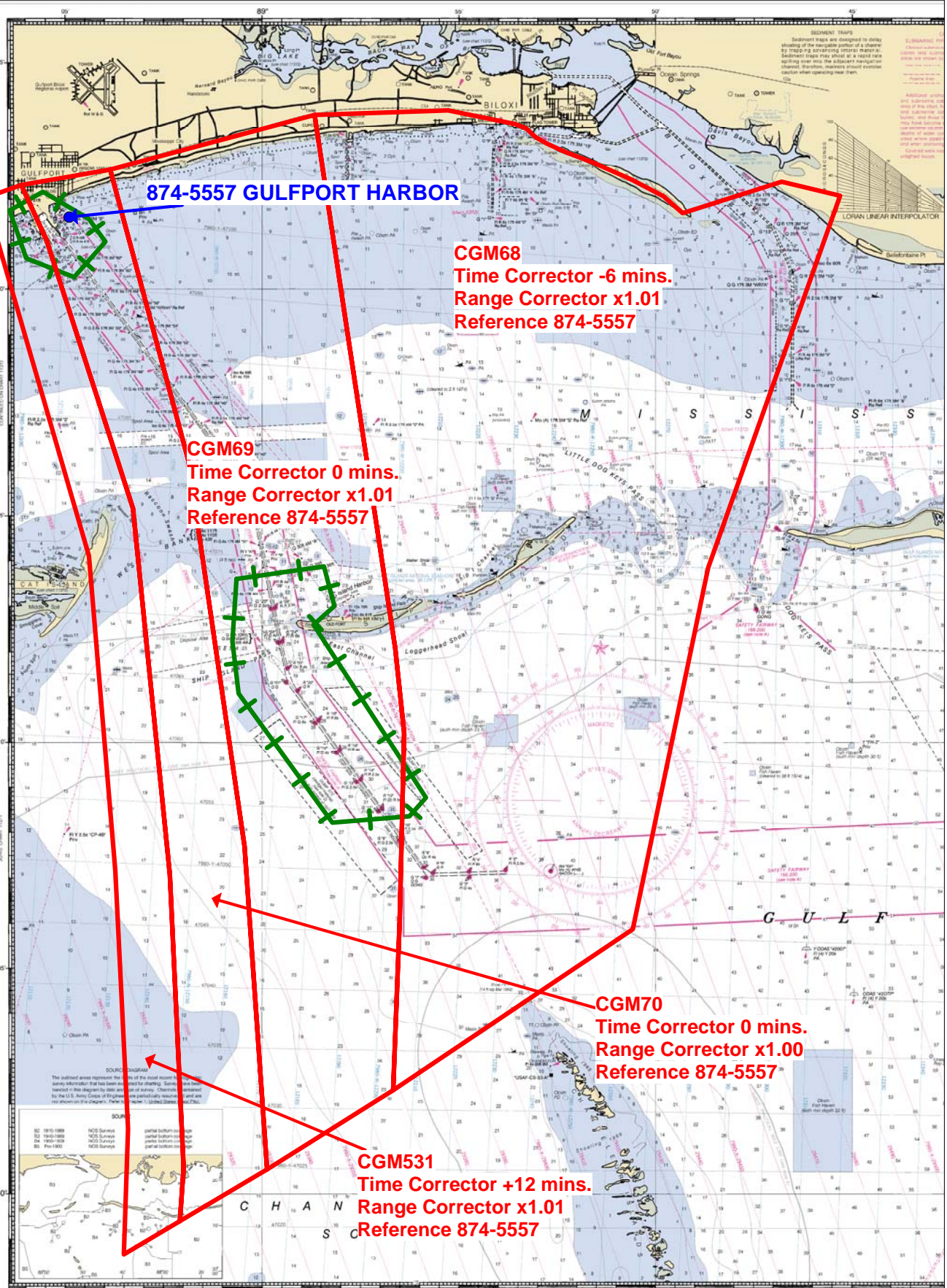
Final Tidal Zoning for OPR=J323-TJ-2005 Approaches to Gulfport, MS - Sheet H11513

SOUNDINGS IN FEET

RATES ON THIS CHART
7980-W 7980-X 7980-Y

HORIZONTAL DATUM
The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic coordinates referred to the North American Datum of 1983 must be corrected an average of 0.10' westward and 0.10' westward to agree with this chart.

11373 LORAN-C OVERPRINTED



874-5557 GULFPORT HARBOR

CGM68
Time Corrector -6 mins.
Range Corrector x1.01
Reference 874-5557

CGM69
Time Corrector 0 mins.
Range Corrector x1.01
Reference 874-5557

CGM70
Time Corrector 0 mins.
Range Corrector x1.00
Reference 874-5557

CGM531
Time Corrector +12 mins.
Range Corrector x1.01
Reference 874-5557

The outlined areas represent the areas of the most recent hydrographic survey information that has been used for charting. Some information in this diagram may have been derived from other sources. Charting information is the property of the U.S. Army Corps of Engineers and is not to be used in any other manner without the written permission of the U.S. Army Corps of Engineers.

1815-1988	NCS Survey	partial bottom contour
1815-1988	NCS Survey	partial bottom contour
1815-1988	NCS Survey	partial bottom contour
1815-1988	NCS Survey	partial bottom contour
1815-1988	NCS Survey	partial bottom contour

C H A N
S C

**ATLANTIC HYDROGRAPHIC BRANCH
EVALUATION REPORT FOR H11513 (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 EQUIPMENT

The following software was used to process and review data at the Atlantic Hydrographic Branch (AHB):

CARIS HIPS/SIPS version 6.0 service pack 2
CARIS BASE Editor 1.0
CARIS HOM 3.3 service pack 3
PYDRO, version 6.4.9 HF 5
dKart Inspector 5.0 build 732
MapInfo version 8.0

B.2 PROCESSING

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

Side Scan Sonar

The Descriptive Report notes the vessel configuration files for side scan sonar differed slightly from normal but contained no details. Communication with the Survey Manager obtained this detailed response: "It appears (the) verification... never made it into the DAPR as it should have. This was a lengthy report ... For that period of time, check the HVF, no TOW PT was used in the processing of the data from my survey and other surveys that year, we are currently back to using the tow point as of 2006. The offsets for the towfish reside in the navigation file of the HVF. The reason for this is explained in detail in the certification report. It was done in order to resolve CARIS processing problems when switching from Caris version 5.4 to version 6.0. Lucky for us this occurred on only new Launches with new HVF." These Reports are archived at the Branch along with the DAPR.

H-Cells

One H-cell was created covering the entire survey area at a 1:40,000 chart scale (chart 11372).

H-cell layers in CARIS HOM are organized as follows:

Layer 100	Sounding Objects, survey scale
Layer 200	Skin of the Earth
Layer 300	Rocks
Layer 310	Wreck
Layer 320	Obstruction
Layer 500	Seabed area (Bottom Descriptions or Characteristics)
Layer 600	Metadata Objects

M_QUAL Attributes:

Inform: H11513, S-J323-TJ-05, NOAA Ship Thomas Jefferson, CDR Emily B. Christman

SorDat: 20051104

SorInd: US,US,surve,H11513 (or US,US,graph, chart # for seabed area)

Office processing began using CARIS BASE Editor, but after experiencing difficulties CARIS Field Sheet Editor was used to create the preliminary contours for this survey, which were then modified by hand. In CARIS HIPS a 2m combined finalized BASE surface was created from the 0.5m field-generated BASE surfaces at 1:10,000 scale. Survey scale sounding data set was extracted from the product surface generated in BASE Editor at 5mm @ 1:10000 scale and final chart soundings selected as appropriate.

Seabed classified areas (seafloor descriptors or characteristics) were transferred to the H-cell from the raster chart. Bottom samples that were classified as seabed area with the acronym NATSUR (nature of surface, IE - mud, sand, rock) are visible in the H-cell as an S-57 object. However, those seafloor descriptions that were classified seabed area with the acronym NATQUA (nature of surface – qualifying terms, IE – hard, soft, sticky) are not contained within the H-cell as separate S-57 objects.

Contour and Depth Area Feature Objects

Charted curve values, listed below, were specified in a metric depth contour list of standard feet curve-equivalents found in OCS H-Cell Specifications 1.1. Upon completion of H-Cell compilation, and prior to conversion to chart units, false values replace the generalized metric values, such that, upon conversion, standard NOAA chart equivalents will result, as indicated below.

H-Cell Depth Contours		(standard metric curve values)	(NOAA chart contour values)
Depth Curve	Created at:	(m =*.75 ft)	(m =*.0 ft)
12	12.75	3.886	3.658
18	18.75	5.715	5.486
30	30.75	9.373	9.144
60	60.75	18.517	18.288

These values are the metric equivalent of the standard NOAA chart contour values. The 60 ft depth curve was only used as a deep closing curve value to define depth areas. There is no 60 ft. contour on the chart or in the ENC.

Before the HOM file was exported to S-57 format, the file was converted from metric to NOAA chart values. This conversion renames the DRVAL1 and DRVAL2 attributes (for depth areas) and VALDCO attributes (for the contours) from the metric equivalent values to the standard NOAA chart contour values to accommodate NOAA traditional rounding standards on charts. This renaming convention assures all soundings fall on the shoal side of the properly charted contour.

Soundings during HOM processing were selected with the CARIS GIS Environmental Variable set to a metric scale (-1,-1,T) to accommodate millimeter precision of the sounding value. This environmental variable was reset to NOAA standard charting values (0,0,N) to convert the metric sounding values to feet units.

The completed H-Cell was exported as a Base Cell File (ENC.000) in S-57 format with all values in metric units. The metric equivalent ENC.000 file was then converted to NOAA chart values (ENC_CU.000) with all values documented in standard feet units.

dKart Inspector

The final ENC_CU.000 file was examined using dKart Inspector. Warnings received were all inconsequential. The DSPM.HUNI and DSPM.DUNI were reported to have illegal values, but these errors were expected as originating during ENC conversion to NOAA chart values, so they also can be ignored. There was only one warning of a vertex lying on a straight line, which is expected and can be ignored. Both seabed notations produced the warning with inconsistent qualifiers between ‘natsur’ and ‘natqua’. Both of these seabed areas were brought

forward from the raster chart and as such have the 'natsur' of Null place holder. This is an expected error and can be ignored.

C. VERTICAL AND HORIZONTAL CONTROL

Office processing of this survey as an ENC required translating the datum to meet S-57 ENC requirements. During CARIS HOM processing the horizontal geodetic datum was translated from the survey datum (NAD83, UTM Zone 16) to Latitude and Longitude (LLDG) World Geodetic System-84 (WGS-84) as per S-57 format specifications. The S-57 ENC format serves as the exchange file submitted to the Marine Chart Division.

Final tides were applied by the field before survey submittal to the branch.

D. RESULTS AND RECOMMENDATIONS

D.1. CHART COMPARISONS

Chart compilation was done by Atlantic Hydrographic Branch personnel, in Norfolk, Virginia. Compilation data will be forwarded to Marine Chart Division, Silver Spring, Maryland. The following NOS charts were used for compilation of the present survey:

11373 45 th Ed., Feb. /06	11372 32 nd Ed., Feb. /06
Corrected through NM Feb. 04/06	Corrected through NM Feb. 25/06
Corrected through LNM Jan. 24/06	Corrected through LNM Feb. 14/06

Hydrography

The charted hydrography originates with prior surveys and requires no further consideration. The hydrographer makes adequate chart comparisons in Section D. of the Descriptive Report. The following should be noted:

General Agreement with Charted soundings

Dredging occurred post-survey by the US Army Corps of Engineers (USACE) between November 2005 and March 2006. Latest tabulated depths for chart 11373 (45th Ed. Feb/06, Corrected through NM Feb 04/06 and LNM Jan 24/06) show controlling depths for the Ship Island Bar Channel were updated from USACE survey in May/06. Latest controlling depths are 35.7 ft. for the middle channel, 33.4 ft. for the left side of the channel, and 32.4 ft. for the right side.

Dangers to Navigation (Dtons)

Two Dangers to Navigation were submitted by the field, and six Dangers to Navigation (Dton) Reports were submitted during office processing to the Navigation Branch Manager for the Gulf of Mexico. Copies are appended to this report.

Six additional possible Dangers to Navigation were identified during office processing but have since been superseded by the USACE dredging operations.

Charting Recommendations

1) The charted 9 ft. shoal in the vicinity of Latitude 30°13'15.33"N, Longitude 88°59'30.90"W is no longer present. Current depths are 20-22 ft. Chart present survey soundings.

2) The Ship Island Bar in the vicinity of Latitude 30°11'40.62"N, Longitude 88°58'53.24"W has been eroded in size. Chart present survey soundings and contours for the Ship Island Bar.

3) There is a chart remnant, cross-hair marking, on chart 11372 in the vicinity of Latitude 30°13'00.65"N, Longitude 88°59'29.76"N. There are no correlating range markings or other such corresponding notations affiliated with this chart remnant. It is recommended this chart remnant be deleted from chart 11372

4) Per a telephone conversation between Timothy Osborn, Nav Manager (telephone # (337) 291-2111), and the USACE, the area has been dredged. It is recommended the dangerous 25 Obstn in Latitude 30°09'41.76"N, Longitude 88°57'56.68"W be deleted from the chart. For further communication contact the following personnel:

Nelson Sanchez	Carl Dyes, Opearations Division
Chief, Coastal Management Branch OP-G	Mobile District, U.S. Army Corps of
Operations Division	Engineers
Mobile District, U.S. Army Corps of Engineers	251-690-2570
W 251-690-3318	
C 251-331-1331	

Comparison with Prior Surveys

A comparison with prior surveys was not done during office processing in accordance with section 4. of the memorandum titled "Changes to Hydrographic Survey Processing", dated May 24, 1995.

Junctions

Survey H11514 was acquired concurrently with H11513. Junction analysis was not performed by the field unit for survey H11513. Junction analysis was performed for the concurrent survey, H11514, submitted to the Atlantic Hydrographic Branch in August 2006. The following quote is excerpted from the descriptive report for survey H11514: "This survey junctions with survey H11513 to the north. Soundings agreed within 1 foot of survey H11513." Office review showed depths agreeing in junctioning area within 20-30 cm.

Adequacy of Survey

Except as noted above, the present survey is adequate to supersede the charted hydrography within the common area. This is an adequate hydrographic/multibeam/side scan sonar survey. No additional field work is recommended.

Bryan Chauveau

Bryan Chauveau
Physical Scientist
Verification of Data, Evaluation Report,
and Survey Compilation Product

APPROVAL SHEET
H11513

The completed survey has been inspected with regard to survey coverage, delineation of depth curves, development of critical depths, cartographic symbolization, and verification or disapproval 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 NOS requirements except where noted in the Evaluation Report.

Helen F. Stewart
Physical Scientist
Atlantic Hydrographic Branch

All final products have undergone a comprehensive review as per the Atlantic Hydrographic Branch Processing Manual and are verified to be accurate and complete except where noted in the Evaluation Report.

Edward Owens
Physical Scientist
Atlantic Hydrographic Branch

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

Approved: _____

Lt. Commander Shepard M. Smith, NOAA
Chief, Atlantic Hydrographic Branch