H11308

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: **H11308**

LOCALITY

State: Alabama

General Locality: Mobile Bay

Sub-locality: Vicinity of Gaillard

2004-7

CHIEF OF PARTY

Mark McMann, NRT1

LIBRARY & ARCHIVES

DATE

NOAA FORM 77-28 (11-72) U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

REGISTRY NUMBER:

HYDROGRAPHIC TITLE SHEET

H11308

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:	**Alabama**		
General Locality:	**Mobile Bay**		
Sub-Locality:	**Vicinity of Gaillard**		
Scale:	**1:10,000**	Date of Survey:	**07/19/07 to 10/25/07**
Instructions Dated:	**06/09/2004**	Project Number:	**OPR-J373-NRT1-04**
Vessel:	**NOAA Launch S-1211, NRT-1**		
Chief of Party:	**Mark McMann**		
Surveyed by:	**MJM, EAL, IW, LTP, SP**		
Soundings by:	**ODOM CVX2 single-beam echosounder**		
Graphic record checked by:	**N/A**		
Protracted by:	**N/A**	Automated Plot:	**N/A**
Verification by:	***Atlantic Hydrographic Branch***		
Soundings in:	**Meters at MLLW**		

Remarks: ***Bold, Italic, Red notes in the Descriptive Report were made during office processing.***
1) All Times are UTC.
2) This is a Standard Navigable Area Hydrographic Survey.
3) Projection is UTM Zone 18.

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DESCRIPTIVE REPORT

to accompany
Basic Hydrographic Survey H11308
OPR-J373-NRT1-04

Year of Survey: 2007
Navigation Response Team 1
NOAA Launch S1211
Mark McMann - Team Leader

A. AREA SURVEYED

This Basic Hydrographic Survey was conducted in accordance with the Project Letter Instructions for project OPR-J373-NRT1-04, Mobile Bay, Alabama. The instructions are dated June 9, 2004.

Mobile Bay is a major port in the Gulf of Mexico and listed as the 17th largest port in the United States, by cargo value, as identified in the 1999 NSD plan. It is also listed as a priority port for chart evaluation by the NOS' Marine Chart Division. Constituents have recently requested, through the NSD's Navigation Manager, surveys of the approaches to Mobile Bay and the GIWW in the area. In addition MCD has identified Mobile Bay as a priority in 2004 for the Coastal Shoreline Change Analysis Program.

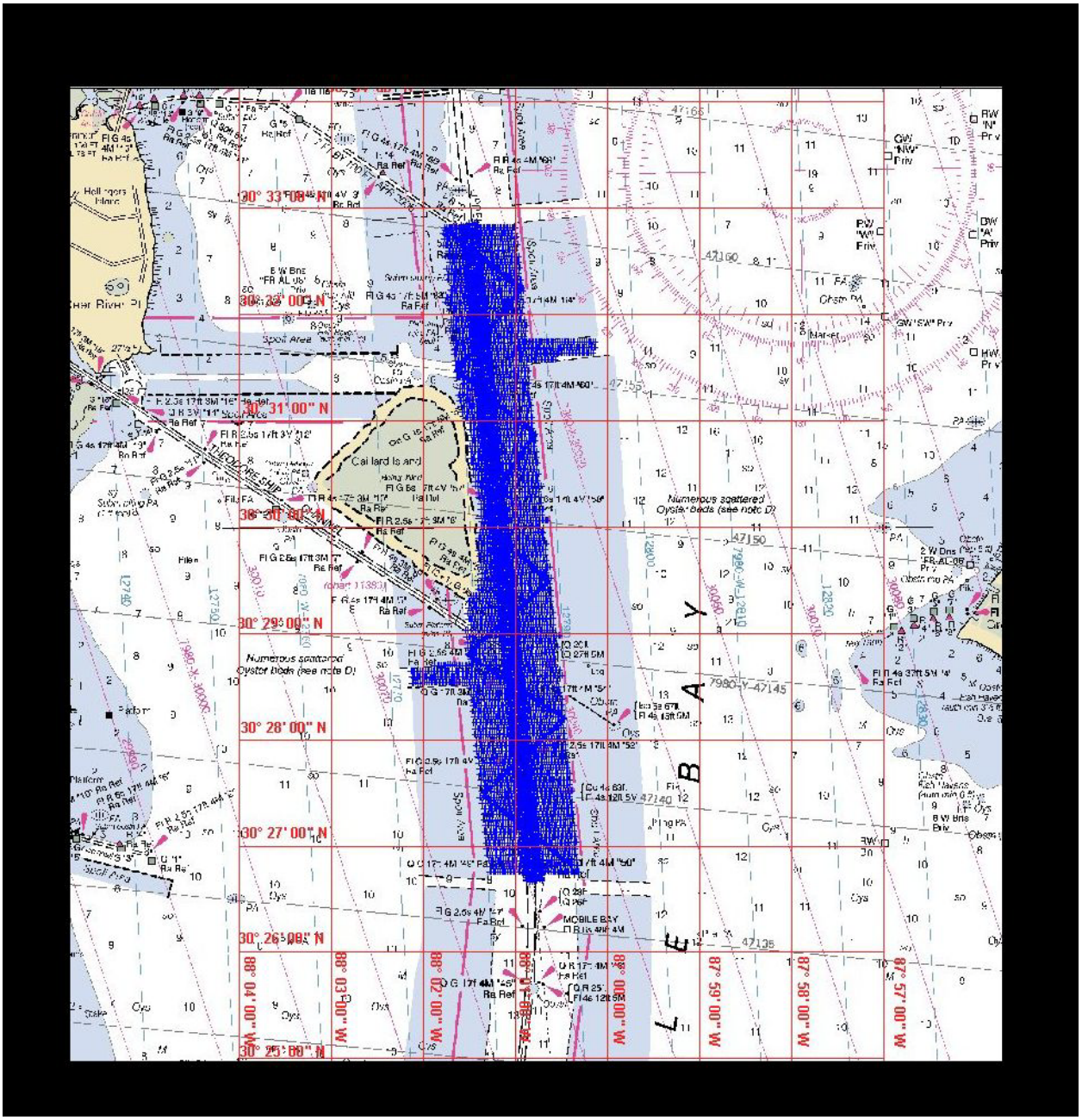
The area surveyed by NRT1, consisted of approximately 5.0 square nautical miles (SNM) of Mobile Bay in the Vicinity of Gaillard. Both singlebeam echosounder and side scan sonar were acquired within the survey limits, wherever possible. Due to shallow depths, areas outside of the dredged channel were surveyed with single beam echo sounder to the edge of the survey limits. These single beam lines were run perpendicular to the channel and the side scan lines. These lines also served as cross lines as they crossed the side scan lines at a 90°.

Survey Limits for Sheet E, H11308 are as follows:

30° 26'38" N 88°00'06" W
30°32'53" N 88°02'09" W

Survey Dates: July 19, 2007 (DN: 200) to November 9, 2007 (DN: 313).

Survey limits are displayed graphically:


30° 33' 00" N
30° 32' 00" N
30° 31' 00" N
30° 30' 00" N
30° 29' 00" N
30° 28' 00" N
30° 27' 00" N
30° 26' 00" N
30° 25' 00" N
88° 04' 00" W
88° 03' 00" W
88° 02' 00" W
88° 01' 00" W
88° 00' 00" W
87° 59' 00" W
87° 58' 00" W
87° 57' 00" W
Caillard Is and
Numerous scattered Oyster beds (see note D)
MOBILE BAY
MOBILE BAY

B. DATA ACQUISITION AND PROCESSING *See also Evaluation Report.*

B.1. EQUIPMENT

Data were acquired by Navigation Response Team 1 using survey Launch 1211. The vessel was configured as described in the Data Acquisition and Processing Report (DAPR*). Major data acquisition systems are summarized below. ***Filed with original field records.***

NOAA Survey Launch 1211 was used to acquire position, sounding, imagery, and sound velocity data. Positions were acquired with a Trimble DSM212L Differential GPS (DGPS) beacon receiver. Soundings were acquired with an ODOM CVX2 single-beam echosounder (SBES) system. Imagery was acquired with a stern-towed KLEIN 3000 side scan sonar (SSS) system. Water column sound velocity data was acquired with a SeaBird Seacat 19 and an ODOM Digibar Pro DB1200 sound velocity profiler.

B.2. QUALITY CONTROL

The integrity of the survey data for H11308 was insured by following the Field Procedures Manual v2.1, dated May, 2006, and the NOS Hydrographic Surveys Specifications and Deliverables Manual, dated June, 2006.

Differential GPS (DGPS) was used for all hydrographic data acquired on this survey.

Side Scan Sonar

The side scan sonar system frequencies used were 100kHz and 500kHz. The recorder was set to 50 meter range. There were no water depths greater than 20 meters in areas where side scan data was collected.

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 frequencies. Coverage of 200% was obtained wherever possible in the required survey areas and where water depth and/or hazards permitted. Side scan sonar coverage was conducted to the 12-foot depth curve where possible.

All side scan contacts were selected during processing in CARIS. Only contacts that could be positively identified while underway (ATONS, piles, platforms, other visible features) were selected in Sonarpro to facilitate their identification while processing. Any contacts, which were determined to be significant, were developed using SBES.

Crosslines

Crosslines were collected in a zig-zag pattern over the length of the project area. A total of 8.9 linear nautical miles (LNM) of crosslines were acquired by the field party. This is approximately 6.6 percent of mainscheme acquisition (133.89 LNM). A visual inspection of crossline data and main scheme data showed good comparison.

Junctions

No junctioning surveys were provided for comparison with this project. ***Concur with clarification, H1130 junctions with H11307 of the same project to the South, H11309 to the North, and H11624 to east. Junction analysis will be performed during office processing of H11308.***

B.3. CORRECTIONS TO ECHO SOUNDING

Echosounder data were corrected for sound velocity using the methods defined in the DAPR. A list of sound velocity profiles (SVP) can be found in the Daily Acquisition Log, located in the Separates* directory. SVPs have also been added to the Pydro PSS for this project.

Filed with original field records.

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

C.1. VERTICAL CONTROL

All soundings were reduced to Mean Lower Low Water (MLLW) with preliminary observed water levels and preliminary zoning.

The operating water level station at Dauphin Island (873-5180) provided water level reducers for this project. Verified water levels from the Tides & Currents website (http://tidesandcurrents.noaa.gov/olddata/) were downloaded and applied to all soundings for this sheet. Water level corrections were applied to the soundings using CARIS HIPS and SIPS v6.1. ***Concur.***

Zoning was provided on the project CD.

A Request for Approved Water Levels letter was sent to N/OPS1 on December 19, 2007 and is included in Appendix IV*. Approved Water Levels were received by the NRT and the approved water levels were reapplied in CARIS. ****Filed with original field records.***

C.2. HORIZONTAL CONTROL

The horizontal datum used for this survey is the World Geodetic System (WGS84), projected using UTM zone 16. The control reference station used for this survey was the USCG DGPS Beacon in the auto-select mode.

Horizontal dilution of precision (HDOP) was monitored daily on Hypack. At no point did HDOP exceed 4.00, and adequate satellite coverage was maintained throughout the survey period.

All positioning equipment was operated in a manner consistent with the manufacturer 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 Evaluation Report*

D.1. CHART COMPARISON

There are two charts and one ENC affected by this survey:

Chart	Edition	Print Date	Scale
11380	1st	10/2005	1:20,000
11376	52nd	06/2007	1:80,000

ENC Cell	Last Updated	Corresponding Chart	Version
US4AL11M	08/06/2007	11376	1

General Agreement with Charted soundings

General agreement with charted soundings is good with current survey soundings being 1-2 feet deeper. ***(See also Evaluation Report D.1.1).***

A baring shoal charted at 30º 29'18"N Lat., 88º 01' 24" W Lon. was covered by single beam hydro and least depths were found to be 9-10 feet. The hydrographer recommends removal of the baring shoal from the chart. ***Concur.***

A charted "Obstn PA" at 30º 31'23"N Lat., 88º 01'18" W Lon. was not assigned as an AWOIS item, but was covered by 200% side scan sonar during main scheme hydrography. Nothing was found. The hydrographer recommends removal of the obstruction from the chart. ***Concur.***

A platform charted at 30º 31'46" N Lat., 88º 01' 39" W Lon. does not exist. The hydrographer recommends removal of the platform from the chart. ***Concur.***

A visible pile charted at 30º 32' 19" N Lat., 88º 01' 34"W Lon., was not located during single beam operations and water depths were too shallow for side scan sonar. The hydrographer recommends removal of the pile from the chart. ***Concur w/clarification. Revise charted Pile to a submerged pile.***

AWOIS Item Investigations

There were a total of 7 AWOIS items assigned to the Field Party in Sheet E. The radius of these items were covered using 200% SSS, where possible.

Results of all AWOIS investigations are contained in Appendix II.

Dangers to Navigation

No DTONS were identified in this survey. ***Concur.***

Shoreline

No shoreline features were investigated by the field party.

D. 2. ADDITIONAL RESULTS

Aids to Navigation and Other Detached Positions

All Aids to Navigation in the survey area were found to be on station and serving their intended purpose. The field party has no recommendations on these Aids to Navigation.

Ferry Routes

There are no ferry routes in the survey area.

Submarine Cables and Pipelines

There were no charted submarine pipelines within the survey area.

Bridges and Overhead Cables

There were no bridges or overhead cables in the survey area.

APPROVAL SHEET

OPR-J373-NRT1-04
Alabama
Mobile Bay
Vicinity of Gaillard
Survey Registry No. H-11308

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: _____

Digitally signed by Mark J. McMann
DN: cn=Mark J. McMann, o=NRT-1, ou=NSD, email=Mark.McMann@noaa.gov, c=US
Date: 2008.04.24 12:47:25 -05'00'

Mark J. McMann - Team Leader
Navigation Response Team 1

APPENDIX I: DTON REPORTS

There are no Dangers to Navigation (DToNs) to report for this survey.

APPENDIX II: SURVEY FEATURES REPORTS

Following are item investigation reports detailing one groups of features:

a) AWOIS Items

H11308 Features Report

Registry Number: H11308

State: Alabama

Locality: Mobile Bay

Sub-locality: Vivinity of Gaillard

Project Number: OPR-J373_NRT1-04

Survey Dates: 10/25/2007 - 11/05/2007

Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
11380	1st	10/01/2005	1:20,000 (11380_2)	USCG LNM: 05/05/2009 (05/12/2009) NGA NTM: 09/20/2003 (05/16/2009)
11377	8th	04/01/2009	1:40,000 (11377_1)	USCG LNM: 05/05/2009 (05/12/2009) NGA NTM: 11/19/2005 (05/16/2009)
11376	53rd	08/01/2008	1:80,000 (11376_1)	USCG LNM: 05/05/2009 (05/12/2009) NGA NTM: 11/19/2005 (05/16/2009)
11360	43rd	11/01/2008	1:456,394 (11360_1)	[L]NTM: ?
1115A	43rd	11/01/2008	1:456,394 (1115A_1)	[L]NTM: ?
11006	32nd	08/01/2005	1:875,000 (11006_1)	[L]NTM: ?
411	52nd	09/01/2007	1:2,160,000 (411_1)	[L]NTM: ?

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

Features

No.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	064 - AWOIS Item #12346	Wreck	[None]	30° 29' 33.5" N	088° 01' 21.4" W	---
1.2	434/1 - AWOIS Item #11629	Shoal	3.65 m	30° 29' 05.6" N	088° 01' 24.6" W	---
2.1	OBSTRUCTION - Retain Subm Piling	AWOIS	[no data]	[no data]	[no data]	---
2.2	OBSTRUCTION - 5 Obstn disproved	AWOIS	[no data]	[no data]	[no data]	---
2.3	UNKNOWN - Retain Wk symbol PA	AWOIS	[no data]	[no data]	[no data]	---
2.4	UNKNOWN - update location of visible Wk	AWOIS	[no data]	[no data]	[no data]	---

1 - Charted Features

1.1) 064 - AWOIS Item #12346

Survey Summary

Survey Position: 30° 29' 33.5" N, 088° 01' 21.4" W

Least Depth: [None]

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2007-298.18:17:39.000 (10/25/2007)

DP Dataset: h11308 / nrt1_1211_dp_nonechosounder / 2007-298 / 10252007

Profile/Beam: 1/1

Charts Affected: 11380_2, 11376_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Wreck was detected visually. Existence of wreck PA is proved and current position is indicated by DP. Wreck is awash but structure above water is barely visible, indicated by documentation pic.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11308/nrt1_1211_dp_nonechosounder/2007-298/10252007	1/1	0.00	000.0	Primary

Hydrographer Recommendations

Hydrographer recommends modifying position of wreck symbol to current survey DP. Hydrographer recommends revising symbol as visible wreck.

S-57 Data

Geo object 1: Wreck (WRECKS)

Attributes: CATWRK - 5:wreck showing any portion of hull or superstructure

SORDAT - 20071025

SORIND - US,US,survey,H11308

VERDAT - 12:Mean lower low water

WATLEV - 4:covers and uncovers

Office Notes

AHB concurs w/ the field. Refer to AWOIS Item #12346 for charting recommendation.

1.2) 434/1 - AWOIS Item #11629

Survey Summary

Survey Position: 30° 29' 05.6" N, 088° 01' 24.6" W

Least Depth: 3.65 m (= 11.96 ft = 1.994 fm = 1 fm 5.96 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2007-309.19:31:25.252 (11/05/2007)

Survey Line: h11308 / 1211_sb / 2007-309 / 044_1930

Profile/Beam: 434/1

Charts Affected: 11380_2, 11377_1, 11376_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

AWOIS 11629 was determined to be present as a shoal but the shoalest point inside AWOIS radious was deeper (@ 3.65m) than the 5 foot indicated chart depth.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11308/1211_sb/2007-309/044_1930	434/1	0.00	000.0	Primary
h11308/1211_sb/2007-309/044_1930	434/1	0.00	000.0	Secondary

Hydrographer Recommendations

Retain AWOIS 11629 with revised least depth value

Cartographically-Rounded Depth (Affected Charts):

12ft (11380_2, 11377_1, 11376_1)

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

S-57 Data

Geo object 1: Sounding (SOUNDG)

Attributes: EXPSOU - 1:within the range of depth of the surrounding depth area

QUASOU - 1:depth known

TECSOU - 1:found by echo-sounder

VERDAT - 12:Mean lower low water

Office Notes

AHB concurs w/ the field. Refer to AWOIS Item #11629 for charting recommendation.

2 - AWOIS Features

2.1) AWOIS #3553 - OBSTRUCTION - Retain Subm Piling

No Primary Survey Feature for this AWOIS Item

Search Position: 30° 30' 24.8" N, 088° 01' 07.6" W

Historical Depth: [None]

Search Radius: 0

Search Technique: S2,MB,ES

Technique Notes: SEARCH 50 METERS OUT FROM A LINE BETWEEN 30-30-31.40N, 88-01-08.18W AND 30-30-18.50N, 88-01-06.87W AS SHOWN IN GRAPHIC.

History Notes:

HISTORY■LNM31/82 (7/28/82)--8TH CGD; REPORTED PILINGS 50YDS NORTHWEST OF MOBILE ■ SHIP CHAN LT 58, JUST EAST OF THE CHAN. IN APPROX POS. LAT.30-30.4N, LONG. ■88-01.1W. PILINGS ARE CONSIDERED HAZARD TO NAVIG. TO SHRIMPERS TRAWLING ■ BOTTOM NETS. SCALED IN LAT30-30-24.75N, LONG.88-01-07.61W AT 1:80,000 (CHT 11376) ■D65/D78/84-87--OPR-J482-84; NEITHER VERIFIED NOR DISPROVED. (UPDATE 3/89 LQ)■S-J610-WH-02--HLS: S-J610-WH-02--HLS: 200% SSS coverage as required was not accomplished, further investigation is recommended. Retain submerged piling as charted. Updated 3/04 MCR

Survey Summary

Charts Affected: 11380_2, 11376_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

AWOIS 3553 was covered with 100% SSS coverage. The item was not detected in the coverage, but disproval is not warranted because survey data is limited to 100% coverage.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11308_AWOIS	AWOIS # 3553	0.00	000.0	Primary

Hydrographer Recommendations

Retain AWOIS 3553 "Subm piling" as charted.

S-57 Data

[None]

Office Notes

AHB concurs w/ the feild. Retain as charted.

2.2) AWOIS #11629 - OBSTRUCTION - 5 Obstn disproved

No Primary Survey Feature for this AWOIS Item

Search Position: 30° 29' 04.5" N, 088° 01' 25.0" W

Historical Depth: 1.52 m

Search Radius: 50

Search Technique: ES.MB

Technique Notes: UPDATE LEAST DEPTH

History Notes:

H8573/61--6 FT SOUNDING SHOWN IN POS. 30-29-03.78N, 88-01-25.02W (NAD 27). (ENT 8/02, PSH)■ S-J610-WH-02--HLS: Hydrographer recommends retaining charted soundings, 200% sss coverage revealed no significant contacts. UPDATED 3/04 MCR

Survey Summary

Charts Affected: 11380_2, 11377_1, 11376_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

AWOIS 11629 was determined to be present as a shoal but the shoalest point was deeper (@ 3.5m) than the 5 foot indicated chart depth.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11308_AWOIS	AWOIS # 11629	0.00	000.0	Primary

Hydrographer Recommendations

Retain AWOIS 11629 with revised least depth value.

S-57 Data

[None]

Office Notes

Concur w/clarification. No Obstruction is present in the area, AWOIS Item #11629, a 5 ft. Obstn, is disproven. Chart present survey soundings and update AWOIS database.

2.3) AWOIS #11633 - UNKNOWN - Retain Wk symbol PA

No Primary Survey Feature for this AWOIS Item

Search Position: 30° 32' 42.0" N, 088° 01' 24.0" W

Historical Depth: [None]

Search Radius: 0

Search Technique: S2,MB,ES,SD

Technique Notes: SEARCH 50 METERS OUT FROM A LINE BETWEEN 30-32-47.82N, 88-01-24.29W AND 30-32.93N, 88-01-22.86W AS SHOWN IN GRAPHIC.

History Notes:

HISTORY■ LNM43/92--10/20/92, 8TH CGD; A 30 FOOT FISHING VESSEL HAS BEEN REPORTED SUNK ADJACENT TO THE MOBILE CHANNEL IN APPROXIMATE POSITION 30-32-42N, 88-01-24W (NAD 83). A SEARCH FAILED TO LOCATE THE WRECK.■CL609/99--04/21/99, MCD REVISION; REALIGN WRECK SYMBOL N-S WITH CHANNEL. REVISE PA TO ED. (ENT 8/02, PSH)■ S-J610-WH-02--HLS: retain Dangerous wreck depth unknown ED as charted. Further investigation is recommended for disproval. UPDATED 3/04 MCR

Survey Summary

Charts Affected: 11380_2, 11376_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

Contact not detected in 200% SSS coverage. Full coverage limited due to water depths. Item not detected.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11308_AWOIS	AWOIS # 11633	0.00	000.0	Primary

Hydrographer Recommendations

Retain Wreck "ED" as charted.

S-57 Data

[None]

Office Notes

AHB concurs w/ clarification, object is outside of set limits of H11308, recommendation is based on visual contact. Feature not disproved. Retain as charted.

2.4) AWOIS #12346 - UNKNOWN - update location of visible Wk

No Primary Survey Feature for this AWOIS Item

Search Position: 30° 29' 30.7" N, 088° 01' 24.0" W

Historical Depth: [None]

Search Radius: 200

Search Technique: SD, S2, SWMB, DI, VS

Technique Notes: [None]

History Notes:

HISTORY■ LNM37/88--ADD SYMBOL: "VISIBLE WRECK (PA)" (70 X 20 FT. BARGE) (CGD8 133-88) 30/29/30N - 88/01/24W (NAD27) When converted to NAD83, you get 30/29/30.70 - 088/01/23.98. No indication that wreck was relocated, yet position in subsequent LNM's does not match this..■■543(96) USPS REPORT INDICATES THAT "WRECK SHOWN AT LAT 30/ 29 /29N - 88/01/23W IS NO LONGER VISIBLE"■■LNM40/96--CHANGE VISIBLE WRECK TO SUBM WRECK 30 /29/29.0N 88/01/23.0W

Survey Summary

Charts Affected: 11380_2, 11376_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11308_AWOIS	AWOIS # 12346	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Wreck (WRECKS)

Attributes: CATWRK - 5:wreck showing any portion of hull or superstructure

CONVIS - 1:visual conspicuous

STATUS - 1:permanent

VERDAT - 12:Mean lower low water

WATLEV - 2:always dry

Office Notes

Update location of visible wreck for AWOIS Item #12346 to surveyed location. Chart a visible Wk in Latitude 30°29'33.531"N, Longitude 88°01'21.383"W.

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

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE : December 26, 2007

HYDROGRAPHIC BRANCH: Atlantic
HYDROGRAPHIC PROJECT: OPR-J373-NRT1-2004
HYDROGRAPHIC SHEET: H11308

LOCALITY: Vivinity of Gaillard, Mobile Bay, AL
TIME PERIOD: May 9, 2007 - October 26, 2007

TIDE STATION USED: 873-5180 Dauphin Island, AL
Lat.30° 15.08'N Long. 088° 04.7' W
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 0.361 meters

REMARKS: RECOMMENDED ZONING
Use zone(s) identified as: CGM51, CGM52, & CGM53

Refer to attachments for zoning information.

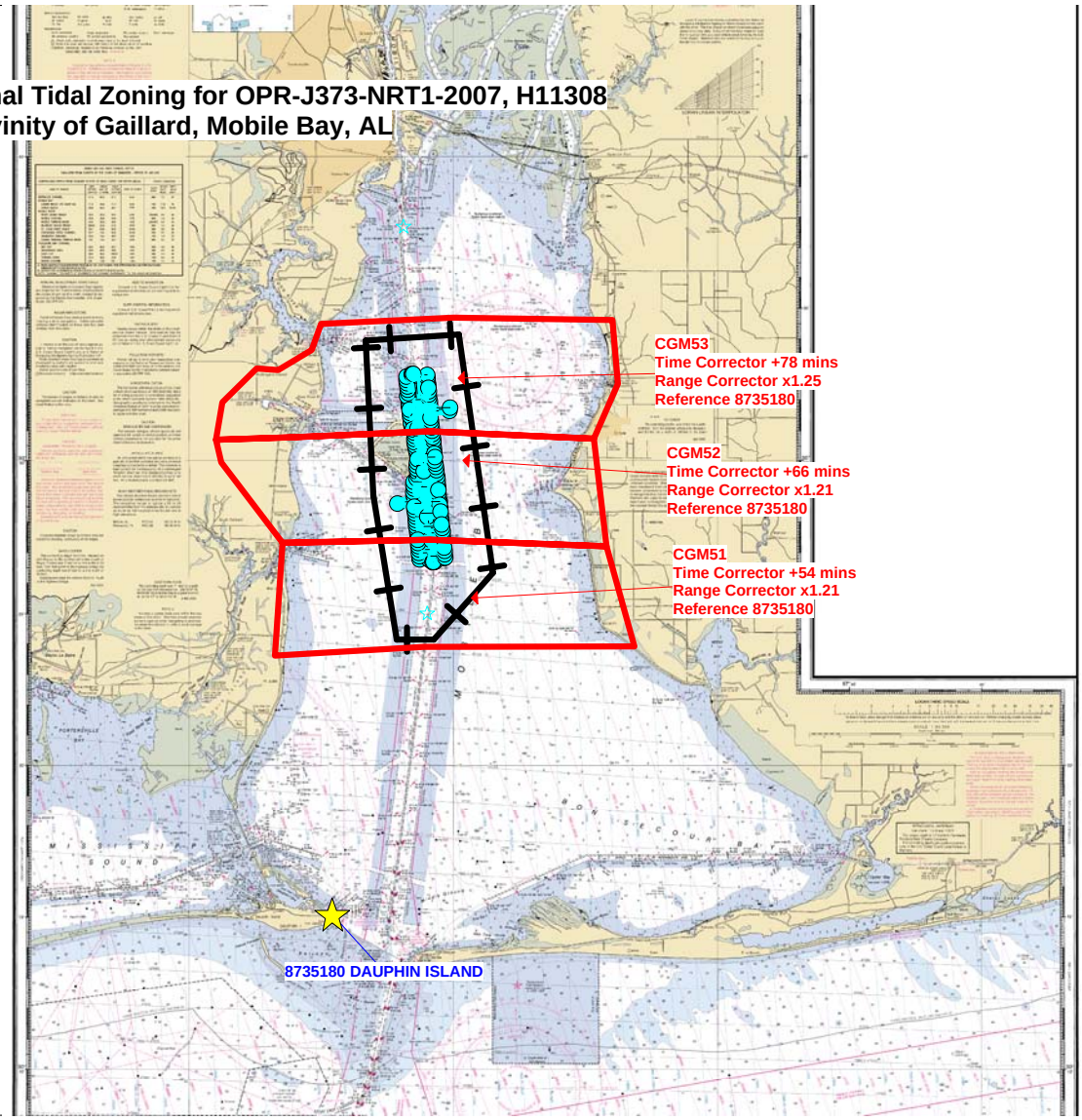
Note 1: Provided time series data are tabulated in metric units (meters), relative to MLLW and on Greenwich Mean Time on the 1983-2001 National Tidal Datum Epoch (NTDE).

Stephen K. Gill

Digitally signed by Stephen K. Gill
DN: cn=Stephen K. Gill, c=US, l=Silver Spring, st=Maryland, o=National Oceanic and Atmospheric Administration, ou=Center for Operational Oceanographic Products & Serv., email=Stephen.Gill@noaa.gov
Reason: I attest to the accuracy and integrity of this document
Date: 2008.01.04 15:02:02 -05'00'

CHIEF, PRODUCTS AND SERVICES DIVISION

Final Tidal Zoning for OPR-J373-NRT1-2007, H11308
Vivinity of Gaillard, Mobile Bay, AL



ATLANTIC HYDROGRAPHIC BRANCH
EVALUATION REPORT to Accompany
Survey H11308

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 and review data at the Atlantic Hydrographic Branch (AHB):

CARIS HIPS/SIPS version 6.1 SP2 hotfix 7
Pydro version 9.4 (r2691)
CARIS BASE Manager 2.1 SP1 hotfix 10
CARIS S-57 Composer 2.0 hotfix 2
dKart Inspector V. 5.0 Build 732 (SP1)

B.2. QUALITY CONTROL

H-Cell

The AHB source depth grid was a 5m resolution shoal biased BASE surface extracted from the field submitted surface for survey H11308. Survey scale soundings were extracted from the 5m shoal biased BASE Surface generated at a 1:10000 scale using a radius of 1m. Depth curves were created by hand at the depth intervals represented on charts 11380. Soundings were selected for charting by hand using the latest raster chart and depth contours used as background for sounding placement. Soundings were then checked for conflicts, corrected to remove conflicts, and edited to allow for proper sounding compilation placement with respect to existing charted depths outside the survey area.

The compilation products and Stand Alone HOB Files (SAHOB) are detailed in the Compilation Process Log of this document. All individual SAHOB files were assembled in BASE Editor during H-Cell compilation.

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

NOAA chart units (ENC_CU.000) with all values measured in feet following NOAA sounding rounding rules.

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

The H11308 CARIS H-Cell final deliverables include the following products:

US511308_CS.000	**1:20,000 Scale**	**H11308 H-Cell with Chart Scale Soundings**
US511308_SS.000	**1:10,000 Scale**	**H11308 Survey Scale Soundings**

B.2. Junctions

Survey H11308 junctions with survey H11307 of the same project to the South and H11309 to the North.. Junction analysis was performed during office processing of H11308.

C. VERTICAL AND HORIZONTAL CONTROL

Final vertical correction processing was completed by field personnel. 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. RESULTS AND RECOMMENDATIONS

Chart Comparison

11380 (1st Edition, Oct./05)
Corrected through NM Oct. 01/05
Corrected through LNM Sep. 20/05
Scale 1:20,000

ENC Comparison

US5AL14M
Mobile Bay East Fowl River to Deer River Pt; Mobile Middle Bay Terminal
Edition 2
Update Application Date 2009-05-18
Issue Date 2009-05-18
References: Chart 11380

Hydrography

USACE Project Depths

All current surveyed sounding in the Mobile Channel have been superseded by US Army Corp of Engineers (USACE) survey and dredge work. The USACE operations took place in July of 2008 after the final data of survey operations (Oct. 25, 2007).

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.

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.

Bryan Chauveau
Physical Scientist
Verification of Data
Evaluation and Analysis Report

H11308 COMPILATION LOG

Registry No.	H11308
Project No.	OPR-J373-NRT1-04
Field Unit	NRT-1
Pre-Compiler	M. Leonard Tyson
Compilation	Bryan Chauveau
Largest Scale Chart	**11380 (1st Edition, Oct./05)** Corrected through NM Oct. 01/05 Corrected through LNM Sep. 20/05 Scale 1:20,000 **US5AL14M** Mobile Bay East Fowl River to Deer River Pt; Mobile Middle Bay Terminal Edition 2 Update Application Date 2009-05-18 Issue Date 2009-05-18 References: Chart 11380
Chart Scale	1:20,000
Survey Scale	1:10,000
Date Of Survey	20071109

Components	File Names
Contour Layer	H11308_Contours
Survey Scale Soundings	H11308_SS_Soundings.hob
Chart Scale Soundings	H11308_CS_Soundings.hob
Feature Layer	H11308_DepAre.hob H11308_Obstrns.hob H11308_Wrecks.hob
Meta-Objects Layer	H11308_M_COVR.hob H11308_M_QUAL.hob
Blue Notes	H11308_BlueNotes.hob

META-OBJECTS:

M_COVR attributes

Acronym	Value
CATCOV	1 – coverage available
SORDAT	20071109
SORIND	US,US,survy, H11308

M_QUAL attributes

Acronym	Value
CATZOC	6
INFORM	H11308,NOAA Survey Launch 1211,NRT-1
POSACC	10
SORDAT	20071109
SORIND	US,US,survy,H11308
SUREND	20071109
SURSTA	20070719

Final Grids Listing –

H11308_5m_Shoal_Extracted.hns
H11308_5m_Shoal_Extracted.xml
H11308_5m_Shoal_Extracted_Depth.bel

APPROVAL SHEET
H11308

The completed survey has been inspected with regard to survey coverage, delineation of depth curves, development 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 NOS requirements except where noted in the Evaluation Report.

Bryan Chauveau

Digitally signed by Bryan Chauveau
DN: cn=Bryan Chauveau, o=Atlantic Hydrographic Branch, ou=NOAA, email=bryan.chauveau@noaa.gov, c=US
Date: 2009.06.05 15:42:32 -04'00'

Bryan Chauveau
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.

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:

Digitally signed by Shepard Smith
DN: cn=Shepard Smith, o=NOAA, ou=AHB, email=shep.smith@noaa.gov, c=US
Date: 2009.06.05 16:30:34 -04'00'

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

Kelly Kriner
AWOIS Check
2009.06.10 11:08:05 -04'00'