

H12017

NOAA FORM 76-35A

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No.

Registry No. H12017

LOCALITY

State Florida

General Locality Tampa Bay

Sublocality Central Tampa Bay

.....
2009-2011

CHIEF OF PARTY
..... Mark J. McMann, NOAA NRT 1

LIBRARY & ARCHIVES

DATE

U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION HYDROGRAPHIC TITLE SHEET		REGISTRY No H12017
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 No: N/A
State <u>Florida</u>		
General Locality <u>Tampa Bay</u>		
Sub-Locality <u>Central Tampa Bay</u>		
Scale <u>1:10000</u> Date of Survey <u>August 19, 2009 to January 04, 2011</u>		
Instructions dated <u>3/5/2009</u> Project No. <u>OPR-J417-NRT1-09</u>		
Vessel <u>S3004 (NRT 1)</u>		
Chief of party <u>Mark J. McMann, NOAA NRT 1</u>		
Surveyed by <u>NOAA NRT 1</u>		
Soundings by <u>ODOM Echotrac CVX2 single-beam and pole-mounted Reson 8125 MultiBeam and Klein 5000</u>		
SAR by <u>Toshi Wozumi</u> Compilation by <u>Fernando Ortiz</u>		
Soundings compiled in <u>Feet</u>		
REMARKS: <u>All times are UTC. UTM Zone 17</u>		
<u>The purpose of this survey is to provide contemporary surveys to update National Ocean Service (NOS)</u>		
<u>nautical charts. All separates are filed with the hydrographic data. Revisions and end notes in red were</u>		
<u>generated during office processing. The processing branch concurs with all information and recommendations in</u>		
<u>the DR unless otherwise noted. Page numbering may be interrupted or non sequential.</u>		
<u>All pertinent records for this survey, including the Descriptive Report, are archived at the</u>		
<u>National Geophysical Data Center (NGDC) and can be retrieved via http://www.ngdc.noaa.gov/.</u>		

DESCRIPTIVE REPORT

to accompany
Basic Hydrographic Survey H12017
Central Tampa Bay
OPR-J417-NRT1-09

Year of Survey: 2009-2011
Navigation Response Team 1
NOAA Launch S3004
Mark McMann - Team Leader

A. AREA SURVEYED

This Basic Hydrographic Survey was conducted in accordance with the Project Instructions for OPR-J417-NRT1-09, dated March 5, 2009, modified by OPR-J417-NRT1-10, dated February 21, 2010, Tampa Bay, FL. The modification to the instructions was due to a change in the water level requirements for the project.

The regional Navigation Manager has received many requests for hydrographic surveys in the Tampa Bay area. The intent of this survey is to supersede all bathymetry, seafloor features, and bottom characteristics within the assigned survey area.

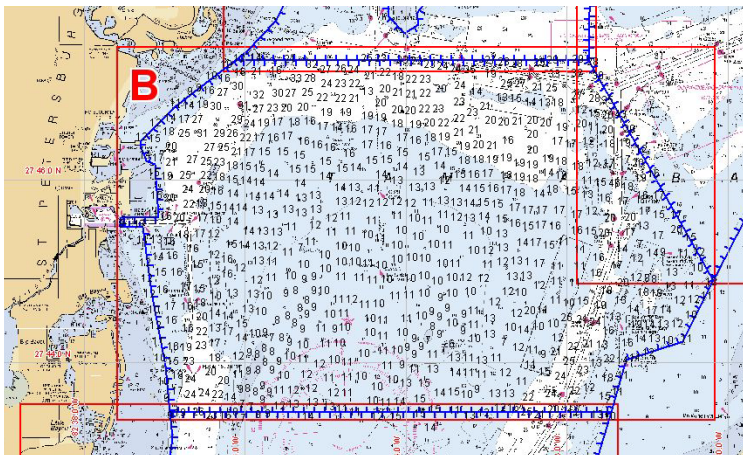
The area surveyed by NRT1, consisted of approximately 21.0 square nautical miles (SNM) of the Central portion of Tampa Bay. Both singlebeam echosounder and side scan sonar were acquired within the survey limits, wherever possible. Multibeam was used to investigate Side Scan contacts.

Survey Limits for Sheet B, H12017 are as follows:

27°47'19" N 82°37'32" W
27°43'26" N 82°30'10" W

Survey Dates: August 19, 2009 (DN: 231) to January 04, 2011 (DN: 004).

Survey limits are displayed graphically:



B. DATA ACQUISITION AND PROCESSING

B.1. EQUIPMENT

Data were acquired by Navigation Response Team 1 using survey Launch 3004. The vessel was configured as described in the Data Acquisition and Processing Report (DAPR). Major data acquisition systems are summarized below.

NOAA Survey Launch 3004 was used to acquire position, sounding, imagery, and sound velocity. Positions were acquired with a Trimble DSM132 Differential GPS (DGPS) beacon receiver in conjunction with an Applanix POS/MV-V4 Inertial Motion Unit (IMU). Soundings were acquired with an ODOM Echotrac CVX2 single-beam echosounder (SBES) system and a pole-mounted Reson 8125 Multibeam (SWMB) system. Imagery was acquired with a pole-mounted Klein 5000 side scan sonar system (SSS). Water column and sensor head sound velocity data were obtained using 2 ODOM Digibar systems.

B.2. QUALITY CONTROL

The integrity of the survey data for H12017 was insured by following the Field Procedures Manual, dated April, 2010, and the NOS Hydrographic Surveys Specifications and Deliverables Manual, dated September 15, 2010.

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

Side Scan Sonar

The side scan sonar system frequency used was 455kHz for the Klein 5000 on Launch 3004. The recorder was set to 50 meter range. There were no water depths greater than 35 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. 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. An area in the southern central portion of the survey was deemed too shallow for Side Scan data acquisition (less than 12') and single beam echosounder data only was acquired.

All side scan contacts were selected during processing in CARIS. Any contacts which were determined to be significant were developed using SWMB.

Crosslines

Crosslines were collected perpendicular to the main scheme over the length of the project area. A total of 43.2 linear nautical miles (LNM) of crosslines were acquired. This is approximately 10 percent of 100% mainscheme acquisition (418.5 LNM). A visual inspection of crossline data and main scheme data showed good comparison. No crosslines were run within the boundaries of one tide zone (TB60 from 2010 ZDF). This does not affect the quality of the crossline comparison.

Junctions

No junctioning surveys were provided for comparison with this project. This survey will junction with Sheet "E", Sheet "F", and Sheet "G", which will be completed later in the project.¹

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.

C. VERTICAL AND HORIZONTAL CONTROL

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 stations at St Petersburg, FL (872-6520), Port Manatee, FL (872-6384), Old Port Tampa, FL (872-6607), and McKay Bay Entrance, FL (872-6667) provided water level reducers for this project.

Verified water levels were downloaded using the Fetchtides program and were applied to all soundings for this sheet. Water level corrections were applied to the soundings using CARIS HIPS and SIPS v7.0.

A Request for Approved Water Levels letter was sent to Final.Tides@noaa.gov on Jan. 7, 2011 and is included in Appendix IV. Approved Water Levels were received by the NRT on Feb. 3, 2011, approving the preliminary TCARI and preliminary zoning grid. No reapplication of water level data was necessary.²

TCARI zoning was provided on the project CD. The TCARI zoning was applied to sounding data from Aug.19, 2009- Oct.19, 2009. A revised TCARI grid was applied to sounding data from Dec. 15, 2009-Feb.24, 2010. From Mar. 11, 2010- Dec. 31, 2010 preliminary zoning was applied to all sounding data at the instruction of COOPS.

C.2. HORIZONTAL CONTROL

The horizontal datum used for this survey is the North American Datum 1983 (NAD83), projected using UTM zone 17. 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

D.1. CHART COMPARISON

There are three charts and two ENC's affected by this survey:³

Chart	Edition	Print Date	Scale
11415	8th	08/2006	1:10,000
11416	10th	10/2008	1:30,000
11412	44th	06/2006	1:80,000

ENC Cell	Last Updated	Corresponding Chart
US5FL11M	2010-09-09	11415
US5FL12M	2010-09-09	11416

General Agreement with Charted soundings

Comparison with the latest chart revealed excellent agreement with charted soundings, with current survey soundings being within 1-2 feet of the chart.

A group of three submerged piles charted at Lat. 27° 46' 50"N, Lon. 82° 36' 46" W, was not found. The area was covered by mainscheme 200% side scan sonar. The hydrographer recommends removal of the three submerged piles and charting current survey soundings in the area.⁴

Two submerged piles charted at 27° 45' 03"N, 82° 34' 21"W and 27° 45' 03"N, 82° 34' 17"W were covered by 200% side scan sonar mainscheme and nothing was found. The hydrographer recommends removal of the charted submerged piles and charting current survey soundings in the area.⁵

Multibeam echosounder was used to develop the many features identified during side scan sonar main scheme coverage of this area.

Five areas with multiple contacts were investigated by using Multibeam over an entire polygon that encompassed all targets.

Numerous soundings in the Cut-E Channel were found to be shoaler than the depths on the Tampa Bay Channel Depths Table. Contact was made with the US Army Corps of Engineers through Mr. Michael Henderson, the Regional Navigation Manager, and the Corps stated dredging of the Cut E Channel is scheduled for this year.⁶ Copies of the emails are included in Supplemental Correspondence, Section V of the Appendices.⁷

There are 32 new features recommended for charting.⁸ Two are DTONs. The details are contained in the Survey Features Report located in Section II of the Appendices to the Descriptive Report.⁹

AWOIS Item Investigations

There were 14 AWOIS items assigned to NRT-1 in Sheet B.¹⁰ The radius of these items were covered using 200% SSS to the extent possible.

Results of the AWOIS investigations are contained in Appendix II.¹¹

Dangers to Navigation

Two DTONs were identified in this survey.¹²

A shoal located by Side Scan Sonar and developed with Multibeam at

27° 44' 13.1"N Lat., 82° 32' 46.7"W Lat. A SWMB least depth of 5' in a charted area of 14.

An obstruction outside of a charted Fish Haven located by Side Scan Sonar at 27° 47' 12.3"N Lat., 82° 35' 36.8"W Lon. A SWMB depth of 16' in an area of 20' charted soundings.

The DTON Reports are located in Section I of the Appendices.¹³

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.¹⁴

An ATON file for the project, provided by Marine Chart Division, will be submitted with a later survey.

Ferry Routes

There are no ferry routes in the survey area.

Submarine Cables and Pipelines

No charted submarine pipelines were located in the survey area.

Bridges and Overhead Cables

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

APPROVAL SHEET
OPR-J417-NRT1-09
Florida
Tampa Bay
Central Tampa Bay
Survey Registry No. H-12017

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: 2011.03.09 09:19:59 -06'00'

Mark J. McMann
Team Leader NRT-1

Revisions and Corrections Compiled During Office Processing and Certification

¹ H12017 junctions with H12020 to the South, H12021 to the West and H12022 to the North. No common junctions were made with these surveys.

² Tide note is appended to this document.

³ Concur with clarification. During SAR review and compilation processing the following charts were used as follow:

Chart	KAPP	Scale	Edition	Date	NTM Date
11416	2983	1:20000	10	10/01/2008	10/08/2011
11416	2985	1:40000	10	10/01/2008	10/08/2011

⁴ Do not concur. A blue note was added to the HCell to remove two charted piles at 27-46-50.48N, 82-36-44.44W. and 27-46-50.19N, 82-36-45.74W. An Obstruction point at 27-46-49.90N, 82-36-47.31W was imported from the ENC to the HCell to be retained.

⁵ Do not concur. Submerged piles located at 27° 45' 03"N, 82° 34' 21"W and 27° 45' 03"N, 82° 34' 17"W cannot be disproved due to insufficient SSS and bathymetric sonar coverage. Two obstruction features are included in the HCell to be retained.

⁶ The tabulated channel depths for Cut "E" channel are as follow;

Name of Channel	LOQ	LIQ	RIQ	ROQ	Date of Survey
Cut E Channel	42.2	41.4	42.6	42.4	5/2010

⁷ The Email correspondence is included in this report.

⁸ Concur with clarification. During SAR review and compilation processing, some modifications were made to accommodate features to chart scale. Chart features as depicted in the HCell.

⁹ Nineteen bottom samples from the field are included in the HCell to be charted and 12 bottom samples from the ENC were imported to the HCell to be retained.

¹⁰ Concur with clarification. During office SAR review, one AWOIS Item #10295 was missing from the original report and was added to the office generated report.

¹¹ AWOIS report is attached to this report.

¹² DTONs have been applied to the latest charts.

¹³ The DTON report is attached to this report

¹⁴ Chart ATONS according to the latest ATONIS information.

DTON 1 H12017

Registry Number: H12017
State: Florida
Locality: Tampa Bay
Sub-locality: Central Tampa Bay
Project Number: OPR-J417-NRT1-09
Survey Date: 01/04/2011

Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
11416	10th	10/01/2008	1:40,000 (11416_1)	USCG LNM: 04/07/2009 (05/05/2009) NGA NTM: 04/10/2004 (05/09/2009)
11412	44th	06/01/2006	1:80,000 (11412_1)	[L]NTM: ?
11400	36th	01/01/2006	1:456,394 (11400_1)	[L]NTM: ?
1114A	36th	01/01/2006	1:456,394 (1114A_1)	[L]NTM: ?
11451	33rd	09/01/2007	1:495,362 (11451_17)	[L]NTM: ?
11006	32nd	08/01/2005	1:875,000 (11006_1)	[L]NTM: ?
11013	47th	02/01/2008	1:1,200,000 (11013_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	DTON 1 Shoal	Shoal	1.65 m	27° 44' 13.1" N	082° 32' 46.7" W	---

1 - Danger To Navigation

1.1) DTON 1 Shoal**DANGER TO NAVIGATION****Survey Summary**

Survey Position: 27° 44' 13.1" N, 082° 32' 46.7" W

Least Depth: 1.65 m (= 5.42 ft = 0.903 fm = 0 fm 5.42 ft)

TPU ($\pm 1.96\sigma$): **THU (TPEh)** ± 1.962 m ; **TVU (TPEv)** ± 0.260 m

Timestamp: 2011-004.17:01:14.364 (01/04/2011)

Survey Line: h12017 / s3004_reson8125 / 2011-004 / raw013_1700

Profile/Beam: 570/207

Charts Affected: 11416_1, 11412_1, 1114A_1, 11400_1, 11451_17, 11006_1, 11013_1, 411_1

Remarks:

[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
h12017/s3004_reson8125/2011-004/raw013_1700	570/207	0.00	000.0	Primary
h12017/s3004_klein5000_200/2010-077/tb100318135300	0001	10.95	227.4	Secondary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

5ft (11416_1, 11412_1, 11451_17)

0 ¾fm (1114A_1, 11400_1, 11006_1, 11013_1, 411_1)

S-57 Data**Geo object 1:** Sounding (SOUNDG)**Attributes:** EXPSOU - 2:shoaler than range of depth of the surrounding depth area

INFORM - Uncharted shoal detected in 200% SSS coverage and developed to completely identify extents and depths with MBES.

QUASOU - 1:depth known

SORDAT - 01042011

SORIND - US,US,Survey,H12017

TECSOU - 3:found by multi-beam

VERDAT - 12:Mean lower low water

Feature Images

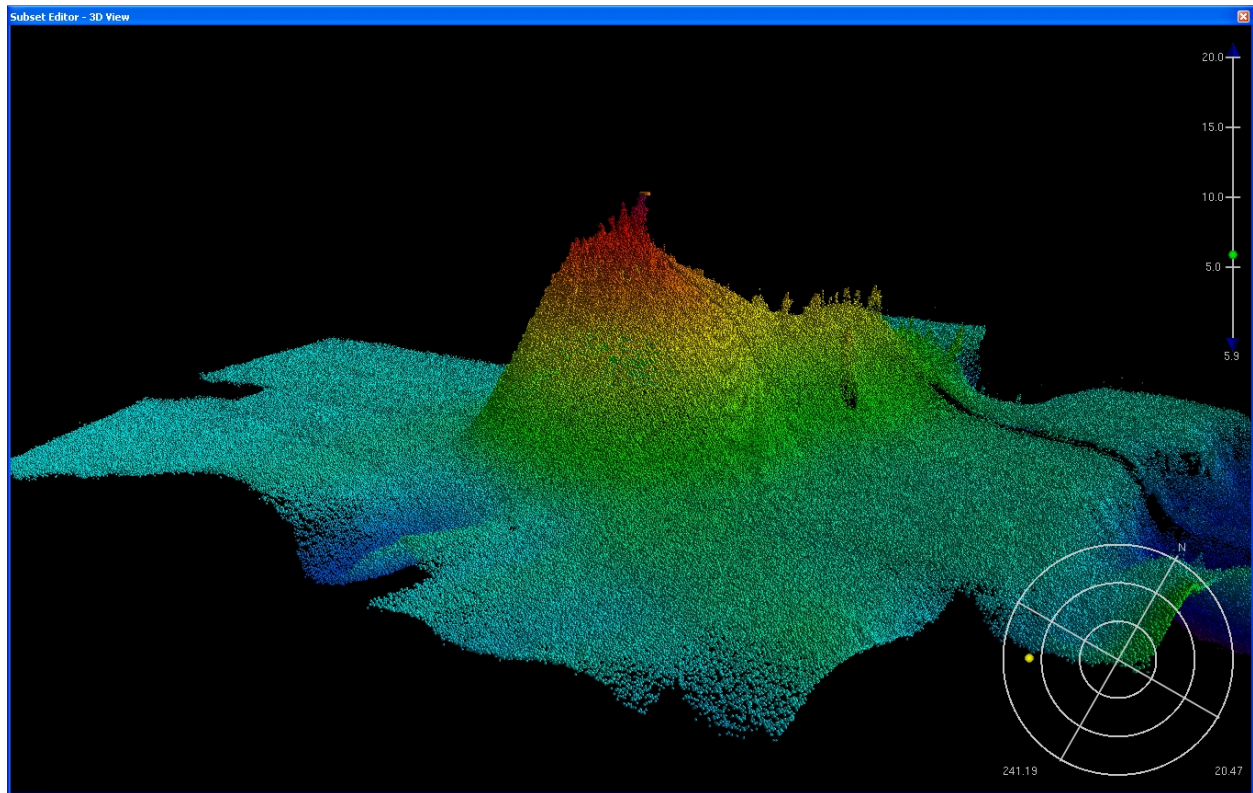


Figure 1.1.1

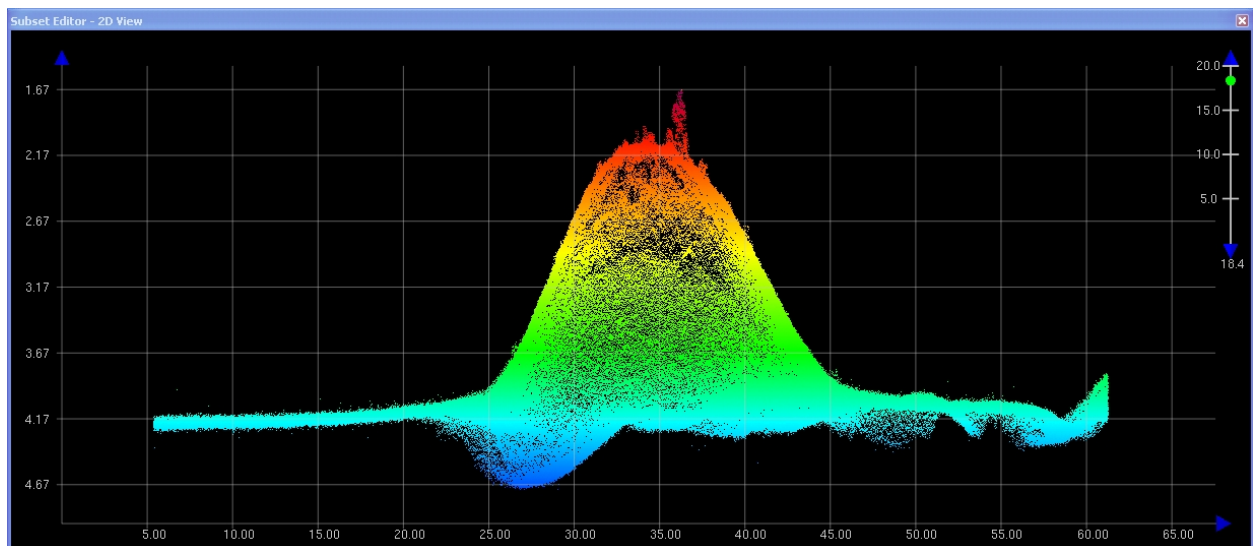


Figure 1.1.2

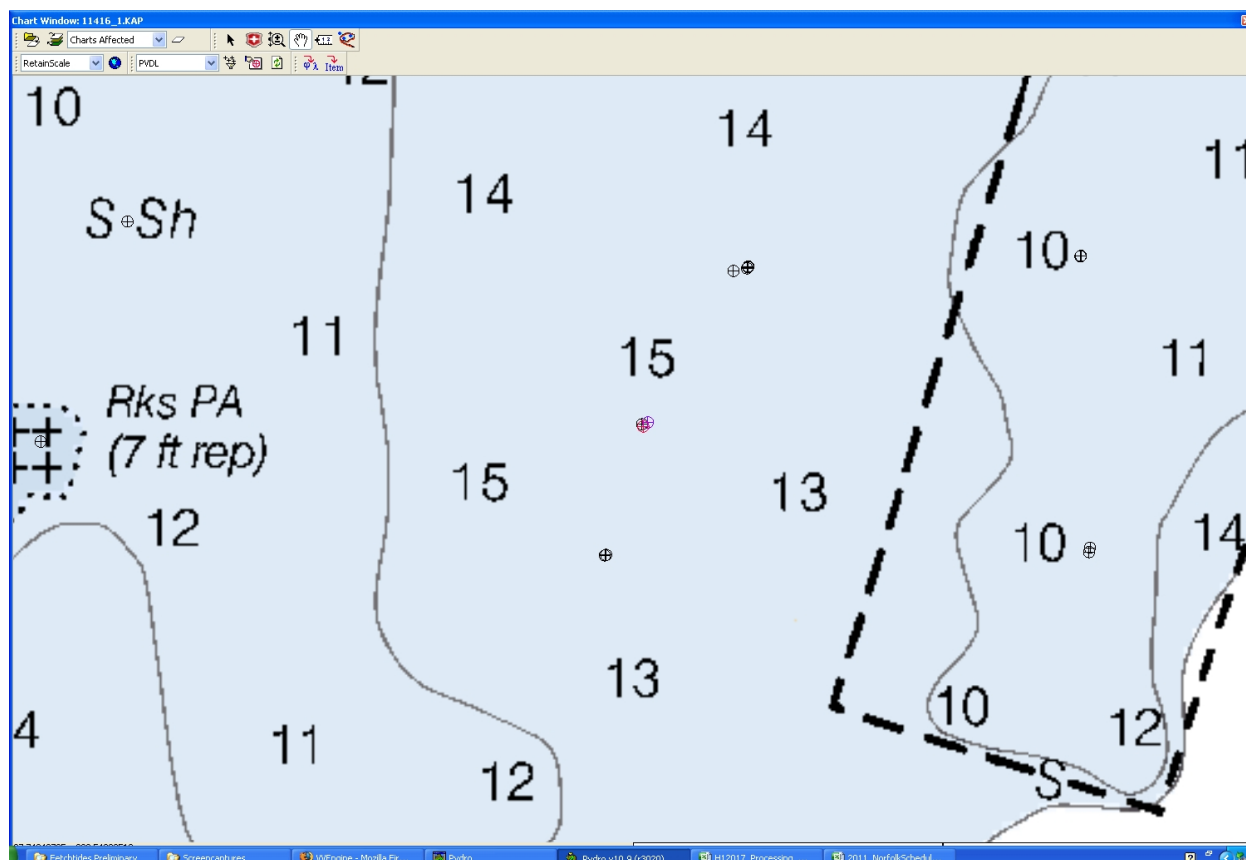


Figure 1.1.3

DTON 2 H12017

Registry Number: H12017
State: Florida
Locality: Tampa Bay
Sub-locality: Central Tampa Bay
Project Number: OPR-J417-NRT1-09
Survey Date: 07/26/2010

Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
11416	10th	10/01/2008	1:40,000 (11416_1)	USCG LNM: 04/07/2009 (05/05/2009) NGA NTM: 04/10/2004 (05/09/2009)
11412	44th	06/01/2006	1:80,000 (11412_1)	[L]NTM: ?
11400	36th	01/01/2006	1:456,394 (11400_1)	[L]NTM: ?
1114A	36th	01/01/2006	1:456,394 (1114A_1)	[L]NTM: ?
11451	33rd	09/01/2007	1:495,362 (11451_17)	[L]NTM: ?
11006	32nd	08/01/2005	1:875,000 (11006_1)	[L]NTM: ?
11013	47th	02/01/2008	1:1,200,000 (11013_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	DTON_2	Obstruction	4.89 m	27° 47' 12.3" N	082° 35' 36.8" W	---

1.1) DTON_2**DANGER TO NAVIGATION****Survey Summary**

Survey Position: 27° 47' 12.3" N, 082° 35' 36.8" W

Least Depth: 4.89 m (= 16.04 ft = 2.673 fm = 2 fm 4.04 ft)

TPU ($\pm 1.96\sigma$): **THU (TPEh)** ± 1.977 m ; **TVU (TPEv)** ± 0.277 m

Timestamp: 2010-207.14:05:28.030 (07/26/2010)

Survey Line: h12017 / s3004_reson8125 / 2010-207 / 2010_207_mb009_1404

Profile/Beam: 1046/73

Charts Affected: 11416_1, 11412_1, 1114A_1, 11400_1, 11451_17, 11006_1, 11013_1, 411_1

Remarks:

Contact found in 200% SSS coverage and investigated by MBES. After development, object was determined to be a DTON and submitted to MCD.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h12017/s3004_reson8125/2010-207/2010_207_mb009_1404	1046/73	0.00	000.0	Primary
h12017/s3004_klein5000_100/2009-279/tb091006125400	0002	1.06	071.0	Secondary

Hydrographer Recommendations

Hydrographer recommends charting Obstruction at current survey location.

Cartographically-Rounded Depth (Affected Charts):

16ft (11416_1, 11412_1, 11451_17)

2 ½fm (1114A_1, 11400_1, 11006_1, 11013_1, 411_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: CATOBS - 5:fish haven
HORACC - 1.98 m
QUASOU - 1:depth known

SORDAT - 20110104

SORIND - US,US,Survey,H12017

TECSOU - 3:found by multi-beam

VALSOU - 4.888 m

VERACC - .28 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Feature Images

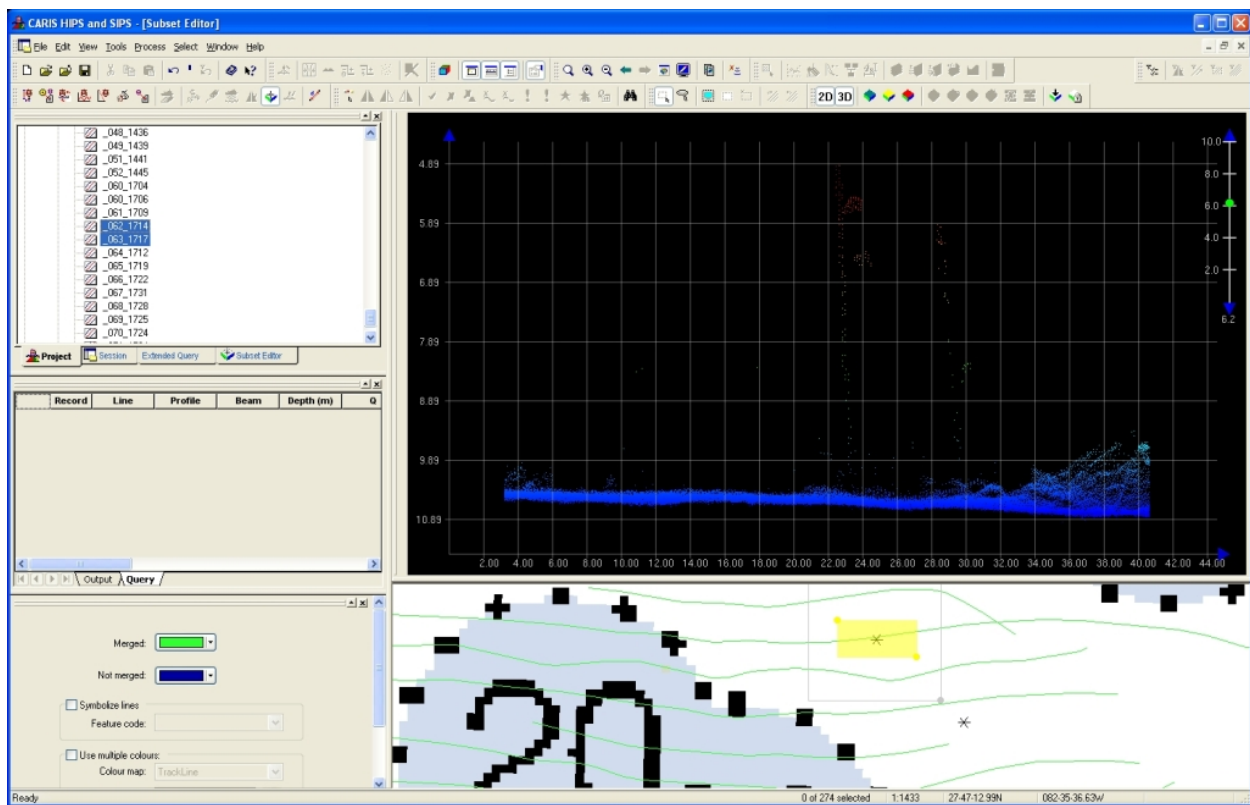


Figure 1.1.1

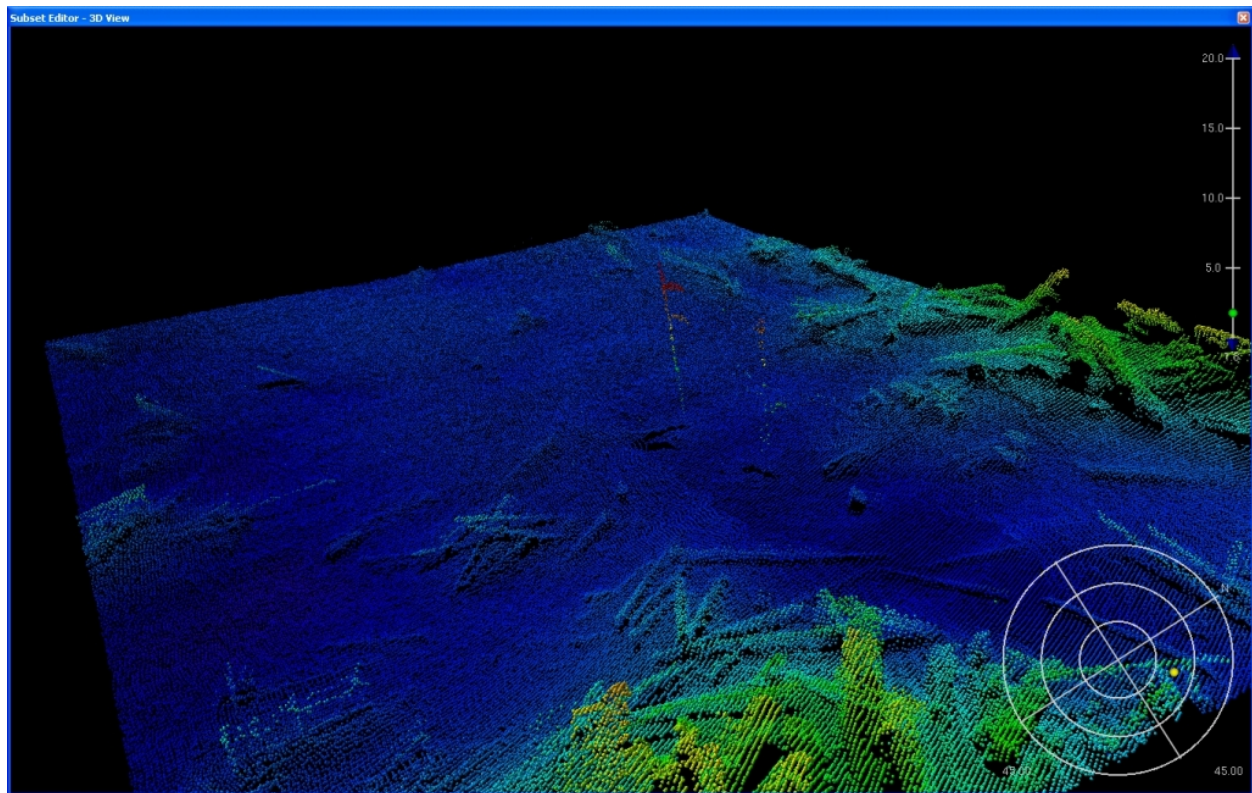


Figure 1.1.2

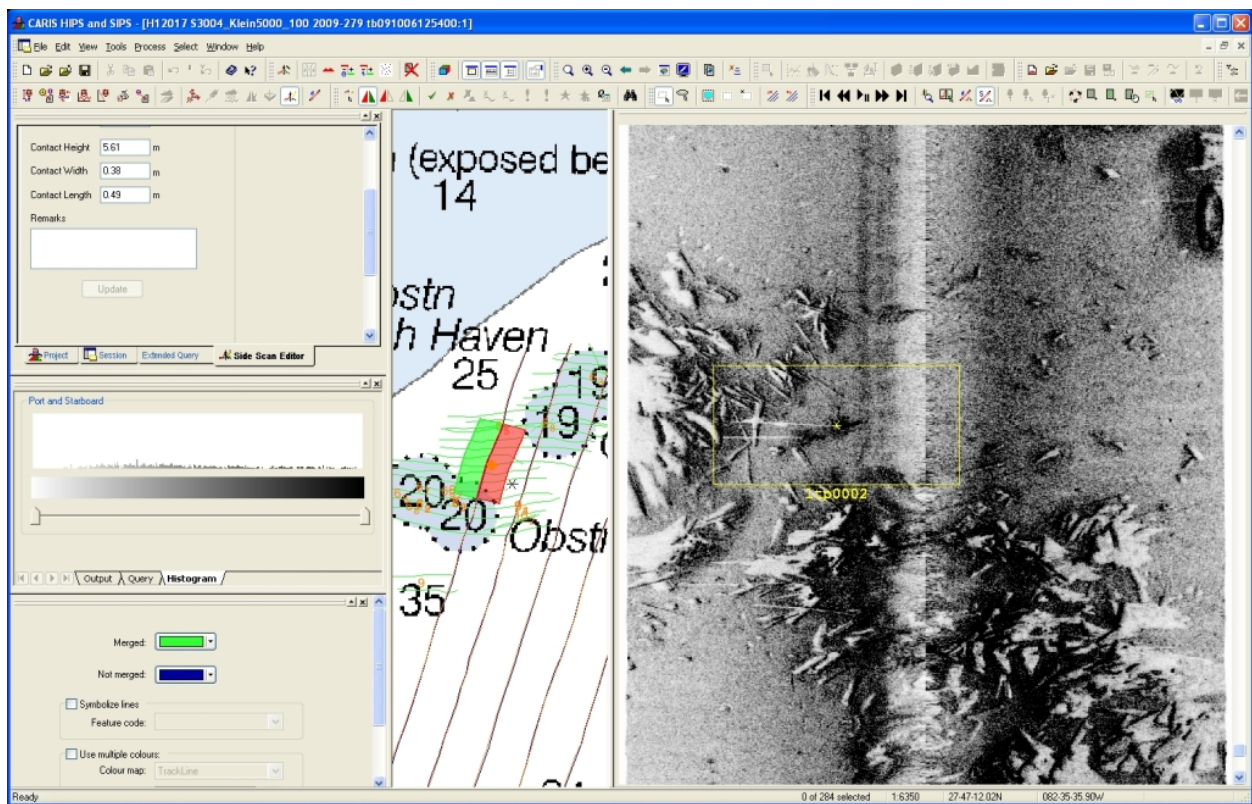


Figure 1.1.3

H12017 DR_AWOIS_Report

Registry Number: H12017
State: Florida
Locality: Tampa Bay
Sub-locality: Central Tampa Bay
Project Number: OPR-J417-NRT1-09
Survey Dates: 07/26/2010 - 12/22/2010

Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
11416	10th	10/01/2008	1:40,000 (11416_1)	USCG LNM: 04/07/2009 (05/05/2009) NGA NTM: 04/10/2004 (05/09/2009)
11415	8th	08/01/2006	1:40,000 (11415_1)	USCG LNM: 6/7/2011 (6/7/2011) NGA NTM: 4/10/2004 (6/25/2011)
11412	44th	06/01/2006	1:80,000 (11412_1)	[L]NTM: ?
11400	36th	01/01/2006	1:456,394 (11400_1)	[L]NTM: ?
1114A	36th	01/01/2006	1:456,394 (1114A_1)	[L]NTM: ?
11451	33rd	09/01/2007	1:495,362 (11451_17)	[L]NTM: ?
11006	32nd	08/01/2005	1:875,000 (11006_1)	[L]NTM: ?
11013	47th	02/01/2008	1:1,200,000 (11013_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.	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	AWOIS	2.59 m	27° 45' 17.6" N	082° 31' 05.9" W	---
1.2	AWOIS	4.36 m	27° 46' 34.2" N	082° 34' 45.5" W	---
1.3	AWOIS	6.07 m	27° 47' 00.2" N	082° 33' 34.1" W	---
1.4	AWOIS	7.40 m	27° 47' 14.6" N	082° 33' 17.6" W	---
1.5	AWOIS	[no data]	[no data]	[no data]	---
1.6	AWOIS	4.55 m	27° 45' 54.1" N	082° 31' 52.8" W	---
1.7	AWOIS	4.92 m	27° 44' 22.3" N	082° 36' 42.1" W	---

1.8	AWOIS	6.34 m	27° 47' 09.6" N	082° 35' 39.4" W	---
1.9	AWOIS	6.30 m	27° 47' 18.3" N	082° 35' 29.0" W	---
1.10	AWOIS	6.22 m	27° 47' 09.5" N	082° 35' 42.2" W	---
1.11	AWOIS	5.82 m	27° 47' 15.1" N	082° 35' 32.6" W	---
1.12	AWOIS	3.66 m	27° 46' 20.5" N	082° 31' 04.5" W	---

1 - Tree

1.1) AWOIS #8802 - DANIA

Primary Survey Feature is Profile/Beam 393/1 / 2010_207_mb007_1522

Search Position: 27° 45' 17.4" N, 082° 31' 05.7" W
Historical Depth: [None]
Search Radius: 50
Search Technique: S2,ES,MB,DI,SD
Technique Notes: [None]

History Notes:

AWOIS ITEM 8802

HISTORY

NM20/58--THE 110 FT DREDGE "DANIA" HAS BEEN REPORTED SUNK IN 23 ì
FT OF WATER, ABOUT 500 YARDS 90 DEG. FROM TAMPA BAY F CUT CHANNEL ì
BUOY 2F (LAT.27-45-23N, LONG.82-31-21W, NAD 27); APPROX. 20 FT OF ì
SUPERSTRUCTURE ABOVE THE WATER. THE WRECK IS MARKED WITH FIXED ì
WHITE LIGHTS AT EACH END AND TWO FIXED RED LIGHTS, VERTICALLY ì
DISPOSED, AT THE MIDDLE. APPROX. POS. OF WRECK: LAT.27-45-23N, ì
LONG.82-31-05W (NAD 27)

H8429/58--WRECK SHOWN IN POS. LAT.27-45-17N, LONG.82-31-06W ì
(NAD 27); BARES 22FT AT MHW.

BP89306--OPR-505-HFP-745, NOS CHART EVAL.; WRECK NOT FOUND NOTED ì
ON CHART SECTION, NO TEXT. (ENTERED 2/94 MCR)

H10623/95-96--OPR-J343-MI; DANIA LOCATED IN 27-45-17.45N, ì
LONG.82-31-05.745W WITH A LEAST DEPTH OF 8FT. UPDATED 8/98 MCR

Survey Summary

Survey Position: 27° 45' 17.6" N, 082° 31' 05.9" W
Least Depth: 2.59 m (= 8.48 ft = 1.413 fm = 1 fm 2.48 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.971 m ; TVU (TPEv) ± 0.308 m
Timestamp: 2010-208.15:22:33.266 (07/27/2010)
Survey Line: h12017 / s3004_reson8125 / 2010-208 / 2010_207_mb007_1522
Profile/Beam: 393/1

Charts Affected: 11416_1, 11412_1, 1114A_1, 11400_1, 11451_17, 11006_1, 11013_1, 411_1

Remarks:

AWOIS 8802 was detected in 200% SSS coverage and investigated using MBES. Least depth on Wreck concurs with charted depth.

Feature Correlation

Source	Feature	Range	Azimuth	Status
2010_207_mb007_1522	393/1	0.00	000.0	Primary
tb090820133800	0001	5.62	310.1	Secondary
AWOIS H12017	AWOIS # 8802	6.26	329.2	Secondary
tb100325172500	0001	10.37	283.6	Secondary
tb090820131800	0001	17.33	285.1	Secondary

Hydrographer Recommendations

Hydrographer recommends retaining as charted.

S-57 Data

Geo object 1: Wreck (WRECKS)
Attributes: CATWRK - 2:dangerous wreck
QUASOU - 6:least depth known
SORDAT - 20110104
SORIND - US,US,graph,H12017
TECSOU - 3:found by multi-beam
VALSOU - 2.585 m
WATLEV - 3:always under water/submerged

Office Notes

SAR: Concur, wreck found. Update survey position and least depth on the chart and AWOIS database.

The figure displays a 3D visualization of a geological model, likely representing a subsurface structure. The model is color-coded, with a central red/orange feature indicating higher values or intensity, transitioning through yellow and green to blue at the periphery. A coordinate system is overlaid, with axes labeled N (North), E (East), and W (West). A vertical scale bar on the right indicates a range from 0 to 20.0. A circular inset in the bottom right corner provides a top-down view of the model, showing concentric circles and radial lines, with numerical labels 46.80 and 88.12.

Page 6

1.2) AWOIS #8803 - OBSTRUCTION

Primary Survey Feature is Profile/Beam 1019/13 / 2010_207_mb040_1436

Search Position: 27° 46' 34.1" N, 082° 34' 47.3" W
Historical Depth: [None]
Search Radius: 100
Search Technique: S2,ES,DI,MB
Technique Notes: 100 meter search radius around each Obstruction

History Notes:

SURVEY REQUIREMENT COMMENTS

CONDUCT THE INVESTIGATION 75M OUT FROM AN AXIS RUNNING ALONG ì
LAT.27-36-34N, FROM LONG.82-34-55W TO LONG.82-34-42W (NAD 83).

HISTORY

CL422/66--CITY OF ST.PETERSBURG; PERMITT ISSUED TO THE CITY TO ì
CONSTRUCT AN ARTIFICIAL REEF; REPORTED COMPLETE 12/19/66. CENTRAL ì
POS. APPROX. LAT.27-46-33N, LONG.82-34-48W. SHOWN ON ENCLOSED ì
DRAWING TO RUN 1000 FT E/W AND 150 FT N/S. (ENTERED 2/94 MCR)
H-10685/96--OPR-J343-AHP; TWO OBSTRUCTIONS WERE FOUND WITHIN ì
THE ITEM WITH DEPTHS OF 14FT, WHICH IS LESS THAN THE AUTHORIZED ì
MINIMUM DEPTH. POSITIONS OF OBSTUCTIONS AS FOLLOWS;
27-46-34.67, 82-34-51.18
27-46-34.68, 82-34-42.87
ENTERED 9/98 MCR

Survey Summary

Survey Position: 27° 46' 34.2" N, 082° 34' 45.5" W
Least Depth: 4.36 m (= 14.29 ft = 2.382 fm = 2 fm 2.29 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.985 m ; TVU (TPEv) ± 0.340 m
Timestamp: 2010-207.14:37:30.358 (07/26/2010)
Survey Line: h12017 / s3004_reson8125 / 2010-207 / 2010_207_mb040_1436
Profile/Beam: 1019/13
Charts Affected: 11416_1, 11412_1, 1114A_1, 11400_1, 11451_17, 11006_1, 11013_1, 411_1

Remarks:

AWOIS 8803 was covered with 200% SSS coverage as well as MBES coverage for further development of shoal objects. This sounding was the shoalest found in the charted Obstructions. Previously charted extents are accurate as well as depths.

Feature Correlation

Source	Feature	Range	Azimuth	Status
2010_207_mb040_1436	1019/13	0.00	000.0	Primary
tb091007170200	0001	25.17	074.9	Secondary
AWOIS H12017	AWOIS # 8803	50.66	086.8	Secondary
tb091007164100	0002	68.61	078.5	Secondary (grouped)
2010_207_mb043_1445	1463/20	72.54	083.4	Secondary (grouped)
2010_207_mb044_1449	1462/237	158.85	095.8	Secondary (grouped)
tb100222151000	0001	181.19	093.1	Secondary (grouped)

Hydrographer Recommendations

Hydrographer recommends retaining extents as charted, but removing PA designation.

Cartographically-Rounded Depth (Affected Charts):

14ft (11416_1, 11412_1, 11451_17)

2 ¼fm (1114A_1, 11400_1, 11006_1, 11013_1, 411_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: QUASOU - 6:least depth known
 SORDAT - 20110104
 SORIND - US,US,graph,H12017
 TECSOU - 3:found by multi-beam
 VALSOU - 4.356 m
 WATLEV - 3:always under water/submerged

Office Notes

SAR: Concur, obstruction found. Update AWOIS database with the position found by this survey.

Feature Images

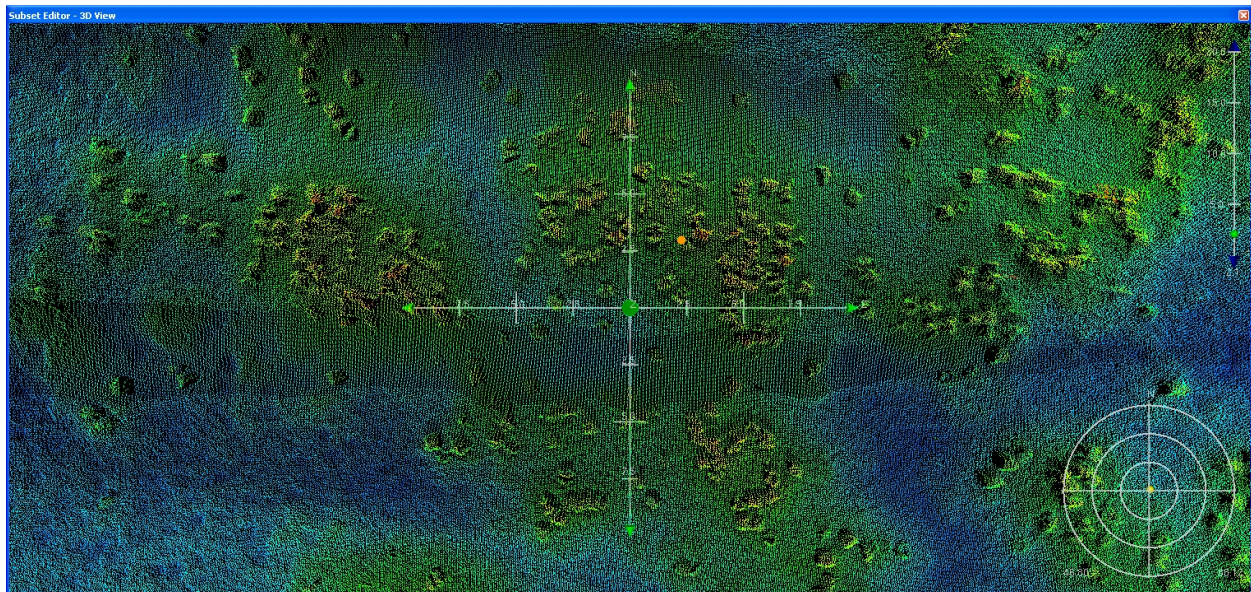


Figure 1.2.1

1.3) AWOIS #8810 - F/V CAPT J

Primary Survey Feature is Profile/Beam 447/95 / 2010_207_mb138_1414

Search Position: 27° 47' 00.4" N, 082° 33' 33.8" W
Historical Depth: [None]
Search Radius: 50
Search Technique: S2,ES,MB
Technique Notes: [None]

History Notes:

HISTORY

LN03/86--7TH CGD, 1/21/86; THE FISHING VESSEL CAPT "J" IS PREVIOUSLY REPORTED BURNED AND SUNK IN TAMPA BAY, IS IN APPROX. POS. LAT.27-46-54N, LONG.82-33-36W AND HAS BEEN TEMPORARILY MARKED BY A GREEN BUOY LETTERED WR SHOWING A QG LIGHT. THIS POSITION IS APPROX. 500 TO 800 YDS SW OF TAMPA BAY CUT G CHANNEL LIGHTED BUOY. 5G (LLNR 1585). (ENTERED 2/94 MCR)
H-10685/96--OPR-J343-AHP; WRECK WAS LOCATED BY DIVER LOCATOR SONAR, WITHIN GIVEN SEARCH RADIUS. LEAST DEPTH WAS 20 FT IN POS. LAT.27-47-00.37N, LONG.082-33-33.83. UPDATED 9/98 MCR

Survey Summary

Survey Position: 27° 47' 00.2" N, 082° 33' 34.1" W
Least Depth: 6.07 m (= 19.90 ft = 3.317 fm = 3 fm 1.90 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.983 m ; TVU (TPEv) ± 0.271 m
Timestamp: 2010-208.14:14:35.899 (07/27/2010)
Survey Line: h12017 / s3004_reson8125 / 2010-208 / 2010_207_mb138_1414
Profile/Beam: 447/95
Charts Affected: 11416_1, 11412_1, 1114A_1, 11400_1, 11451_17, 11006_1, 11013_1, 411_1

Remarks:

Contact detected in 200% SSS coverage and investigated using MBES. Contact least depth matches previously charted sounding.

Feature Correlation

Source	Feature	Range	Azimuth	Status
2010_207_mb138_1414	447/95	0.00	000.0	Primary
tb100223173200	0001	1.46	178.5	Secondary
tb090923165100	0001	2.23	218.5	Secondary
tb100223171800	0001	4.24	165.7	Secondary
AWOIS H12017	AWOIS # 8810	8.43	226.4	Secondary

Hydrographer Recommendations

Hydrographer recommends retaining as charted.

S-57 Data

Geo object 1: Wreck (WRECKS)
Attributes: QUASOU - 6:least depth known
SORDAT - 20110104
SORIND - US,US,graph,H12017
TECSOU - 3:found by multi-beam
VALSOU - 6.067 m
WATLEV - 3:always under water/submerged

Office Notes

SAR: Concur, wreck found. Update survey position and least depth on the chart and AWOIS database.

Feature Images

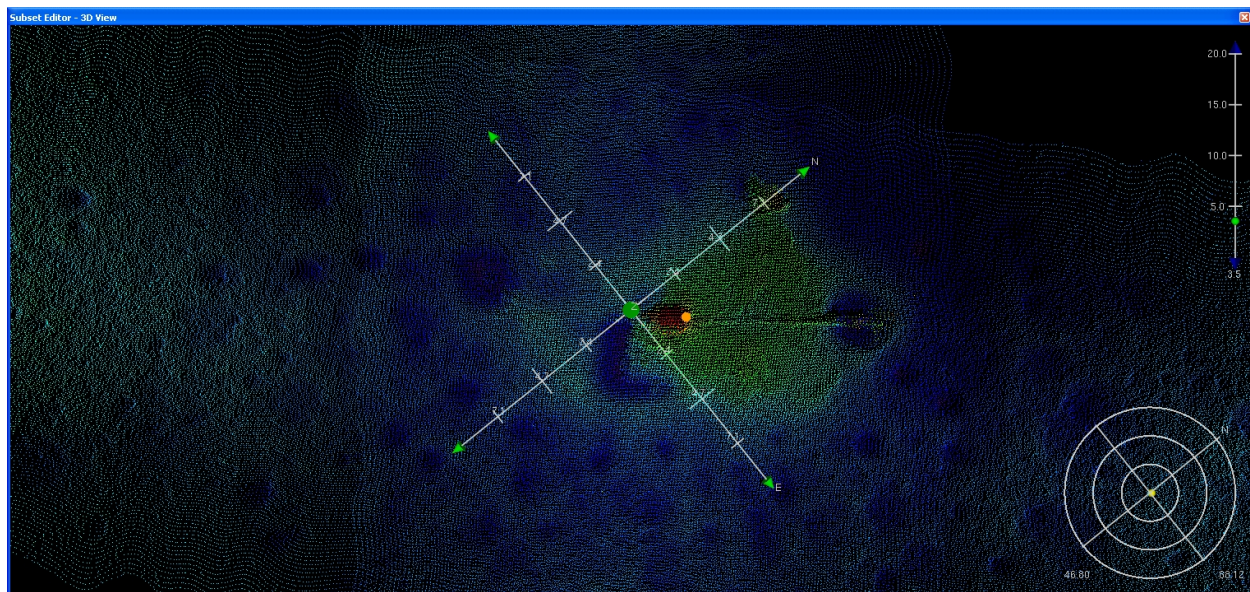


Figure 1.3.1

1.4) AWOIS #10287 - OBSTRUCTION

Primary Survey Feature is Profile/Beam 408/5 / _070_1625

Search Position: 27° 47' 13.5" N, 082° 33' 18.8" W
Historical Depth: 6.71 m
Search Radius: 50
Search Technique: MB, S2, ES
Technique Notes: [None]

History Notes:

HISTORY

H10685/96--OPR-J343-MI/AHP; AN UNIDENTIFIED OBSTRUCTION WAS LOCATED WITH A LEAST DEPTH OF 22FT IN LAT. 27-47-13.47N, LONG. 82-33-18.82W. EVALUATOR RECOMMENDS CHARTING A 22 OBSTN AS SURVEYED. (UP 9/12/02, SJV)

Survey Summary

Survey Position: 27° 47' 14.6" N, 082° 33' 17.6" W
Least Depth: 7.40 m (= 24.28 ft = 4.047 fm = 4 fm 0.28 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 2.032 m ; TVU (TPEv) ± 0.478 m
Timestamp: 2010-355.16:25:29.021 (12/21/2010)
Survey Line: h12017 / s3004_reson8125 / 2010-355 / _070_1625
Profile/Beam: 408/5
Charts Affected: 11416_1, 11412_1, 1114A_1, 11400_1, 11451_17, 11006_1, 11013_1, 411_1

Remarks:

AWOIS item 10287 was covered with 200% SSS coverage and a contact was detected and investigated using MBES. Contact was determined to be deeper than the charted depth.

Feature Correlation

Source	Feature	Range	Azimuth	Status
_070_1625	408/5	0.00	000.0	Primary
tb090923145701	0001	1.29	096.7	Secondary
tb100223181400	0001	11.20	135.2	Secondary
_069_1622	536/104	12.48	120.2	Secondary (grouped)
tb091008153600	0002	16.02	125.0	Secondary
AWOIS H12017	AWOIS # 10287	47.89	043.1	Secondary

Hydrographer Recommendations

Hydrographer recommends updating charted Obstruction.

Cartographically-Rounded Depth (Affected Charts):

24ft (11416_1, 11412_1, 11451_17)

4fm (1114A_1, 11400_1, 11006_1, 11013_1, 411_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)
Attributes: QUASOU - 6:least depth known
SORDAT - 20110104
SORIND - US,US,graph,H12017
TECSOU - 3:found by multi-beam
VALSOU - 7.402 m
WATLEV - 3:always under water/submerged

Office Notes

SAR: Concur. Update charted obstruction and AWOIS database with present survey position.

1.5) AWOIS #10288 - OBSTRUCTION

No Primary Survey Feature for this AWOIS Item

Search Position: 27° 46' 36.0" N, 082° 35' 60.0" W
Historical Depth: 6.40 m
Search Radius: 50
Search Technique: MB, S2, ES
Technique Notes: [None]

History Notes:

HISTORY

H10685/96--OPR-J343-MI/AHP; AN UNIDENTIFIED OBSTRUCTION WAS LOCATED WITH A LEAST DEPTH OF 21FT.

Survey Summary

Charts Affected: 11415_1, 11416_1, 11412_1, 1114A_1, 11400_1, 11451_17, 11006_1, 11013_1, 411_1

Remarks:

AWOIS item 10028 was not detected in 200% SSS coverage.

Feature Correlation

Source	Feature	Range	Azimuth	Status
AWOIS H12017	AWOIS # 10288	0.00	000.0	Primary

Hydrographer Recommendations

Hydrographer recommends removing Obstruction from chart.

S-57 Data

[None]

Office Notes

SAR: Concur, obstruction not found. remove from chart

1.6) AWOIS #10292 - OBSTRUCTION

Primary Survey Feature is Profile/Beam 1918/169 / 2010_207_mb006_1512

Search Position: 27° 45' 53.6" N, 082° 31' 54.0" W
Historical Depth: 4.88 m
Search Radius: 50
Search Technique: MB, S2, ES
Technique Notes: [None]

History Notes:

HISTORY

H-10623/95-96--OPR-J343-MI/AHP; DREDGE PIPE 30 INCH DIAM., .5M OFF THE BOTTOM, LOCATED AND DIVER INVESTIGATED. LEAST DEPTH WAS 16 FT.

Survey Summary

Survey Position: 27° 45' 54.1" N, 082° 31' 52.8" W
Least Depth: 4.55 m (= 14.94 ft = 2.491 fm = 2 fm 2.94 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.974 m ; TVU (TPEv) ± 0.275 m
Timestamp: 2010-208.15:13:35.253 (07/27/2010)
Survey Line: h12017 / s3004_reson8125 / 2010-208 / 2010_207_mb006_1512
Profile/Beam: 1918/169
Charts Affected: 11416_1, 11412_1, 1114A_1, 11400_1, 11451_17, 11006_1, 11013_1, 411_1

Remarks:

AWOIS 10292 detected in 200% SSS coverage and investigated using MBES. Dredge pipe ~120m long.

Feature Correlation

Source	Feature	Range	Azimuth	Status
2010_207_mb006_1512	1918/169	0.00	000.0	Primary
tb100324151800	0001	2.97	209.8	Secondary
tb100324145000	0003	14.42	058.4	Secondary
AWOIS H12017	AWOIS # 10292	37.22	065.6	Secondary
tb090831171300	0001	66.64	067.6	Secondary (grouped)

Hydrographer Recommendations

Hydrographer recommends retaining as charted.

S-57 Data

Geo object 1: Obstruction (OBSTRN)
Attributes: QUASOU - 6:least depth known
SORDAT - 20110104
SORIND - US,US,graph,H12017
TECSOU - 3:found by multi-beam
VALSOU - 4.555 m
WATLEV - 3:always under water/submerged

Office Notes

SAR: Do not concur. It is recommended that the least depth of 4.55 m (15 ft) be updated on the chart and AWOIS database.

1.7) AWOIS #10056 - OBSTRUCTION

Primary Survey Feature is Profile/Beam 340/172 / 2010_207_mb124_1302

Search Position: 27° 44' 21.8" N, 082° 36' 42.3" W

Historical Depth: [None]

Search Radius: 50

Search Technique: MB, S2, ES

Technique Notes: [None]

History Notes:

HISTORY

H-10606/95--OPR-J343-MI; REMNANTS OF A FIXED AID TO NAVIGATION, 1
30 FEET LONG, WITH A LEAST DEPTH OF 14 FEET WAS LOCATED IN POS. 1
LAT.27-44-21.84N, LONG.82-36-42.34. ENTERED 9/98 MCR

Survey Summary

Survey Position: 27° 44' 22.3" N, 082° 36' 42.1" W

Least Depth: 4.92 m (= 16.15 ft = 2.692 fm = 2 fm 4.15 ft)

TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.976 m ; TVU (TPEv) ± 0.277 m

Timestamp: 2010-208.13:03:15.166 (07/27/2010)

Survey Line: h12017 / s3004_reson8125 / 2010-208 / 2010_207_mb124_1302

Profile/Beam: 340/172

Charts Affected: 11415_1, 11416_1, 11412_1, 1114A_1, 11400_1, 11451_17, 11006_1,
11013_1, 411_1

Remarks:

Contact detected in 200% SSS coverage and investigated using MBES. Least depth on AWOIS item obtained and reflects a difference in charted depth.

Feature Correlation

Source	Feature	Range	Azimuth	Status
2010_207_mb124_1302	340/172	0.00	000.0	Primary
tb091001172000	0002	7.56	039.2	Secondary
tb091119175300	0001	9.42	344.4	Secondary

AWOIS H12017	AWOIS # 10056	15.26	028.3	Secondary
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Hydrographer Recommendations

Hydrographer recommends retaining position as charted, but updating least depth to reflect current data.

Cartographically-Rounded Depth (Affected Charts):

16ft (11415_1, 11416_1, 11412_1, 11451_17)

2 ¾fm (1114A_1, 11400_1, 11006_1, 11013_1, 411_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: QUASOU - 6:least depth known
SORDAT - 20110104
SORIND - US,US,graph,H12017
TECSOU - 3:found by multi-beam
VALSOU - 4.924 m
WATLEV - 3:always under water/submerged

Office Notes

SAR: Concur, update least depth and position on the chart and AWOIS database.

Feature Images

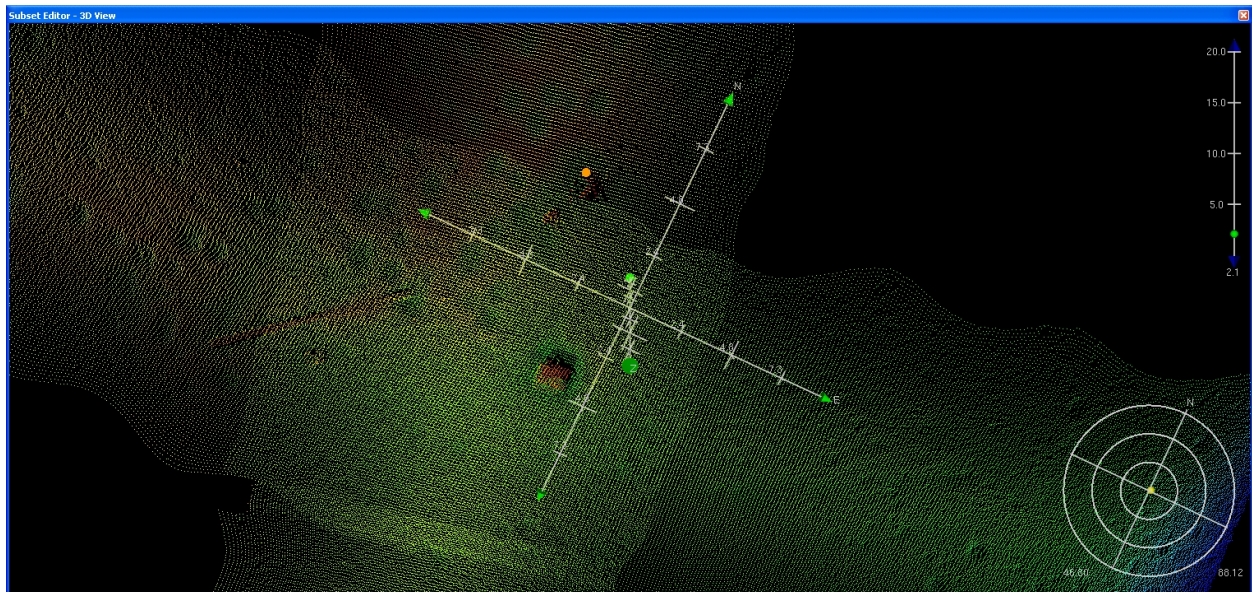


Figure 1.7.1

1.8) AWOIS #10064 - OBSTRUCTION

Primary Survey Feature is Profile/Beam 1076/196 / _061_1709

Search Position: 27° 47' 08.6" N, 082° 35' 38.4" W
Historical Depth: 8.84 m
Search Radius: 50
Search Technique: MB, S2, ES
Technique Notes: [None]

History Notes:

HISTORY

H-10685/96--OPR-J343-AHP; WRECK LOCATED WITH A LEAST DEPTH ì
 29FT IN 27-47-08.63N, LONG.82-35-38.38W. AN OBSTRUCTION WITH A ì
 LEAST DEPTH OF 20 FT WAS LOCATED IN THE SAME POSITION. THESE ì
 OBJECTS APPEAR TO BE PART OF MISS-CHARTED FISH HAVEN. ENTERED ì
 9/98 MCR

Survey Summary

Survey Position: 27° 47' 09.6" N, 082° 35' 39.4" W
Least Depth: 6.34 m (= 20.80 ft = 3.466 fm = 3 fm 2.80 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.987 m ; TVU (TPEv) ± 0.306 m
Timestamp: 2010-356.17:10:32.291 (12/22/2010)
Survey Line: h12017 / s3004_reson8125 / 2010-356 / _061_1709
Profile/Beam: 1076/196
Charts Affected: 11416_1, 11412_1, 1114A_1, 11400_1, 11451_17, 11006_1, 11013_1, 411_1

Remarks:

Contacts detected in 200% SSS coverage and investigated with MBES. Multiple contacts found withing AWOIS 10064 radius. Least depth concurs with previously charted depth.

Feature Correlation

Source	Feature	Range	Azimuth	Status
_061_1709	1076/196	0.00	000.0	Primary
2010_207_mb011_1410	1151/3	1.92	192.4	Secondary
AWOIS H12017	AWOIS # 10064	41.01	317.2	Secondary

Hydrographer Recommendations

Hydrographer recommends retaining as charted.

Cartographically-Rounded Depth (Affected Charts):

21ft (11416_1, 11412_1, 11451_17)

3 ½fm (1114A_1, 11400_1, 11006_1, 11013_1, 411_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)
Attributes: QUASOU - 6:least depth known
SORDAT - 20110114
SORIND - US,US,graph,H12017
TECSOU - 3:found by multi-beam
VALSOU - 6.339 m
WATLEV - 3:always under water/submerged

Office Notes

SAR: Concur. Chart obstruction with position found on this survey. Update AWOIS database with the position and least depth found in this survey.

1.9) AWOIS #10065 - OBSTRUCTION

Primary Survey Feature is Profile/Beam 1173/198 / _068_1728

Search Position: 27° 47' 18.2" N, 082° 35' 29.5" W
Historical Depth: 5.79 m
Search Radius: 50
Search Technique: MB, S2, ES
Technique Notes: [None]

History Notes:

HISTORY

H-10685/96--OPR-J343-AHP; A BARGE WAS LOCATED WITH A LEAST ì
 DEPTH OF 19FT IN 27-47-18.18N, 82-35-29.49. BARGE APPEARS TO BE ì
 PART OF A MISS-CHARTED FISH HAVEN. ENTERED 9/98 MCR

Survey Summary

Survey Position: 27° 47' 18.3" N, 082° 35' 29.0" W
Least Depth: 6.30 m (= 20.68 ft = 3.447 fm = 3 fm 2.68 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.987 m ; TVU (TPEv) ± 0.308 m
Timestamp: 2010-356.17:30:00.378 (12/22/2010)
Survey Line: h12017 / s3004_reson8125 / 2010-356 / _068_1728
Profile/Beam: 1173/198
Charts Affected: 11416_1, 11412_1, 1114A_1, 11400_1, 11451_17, 11006_1, 11013_1, 411_1

Remarks:

Contact was detected in 200% SSS coverage and investigated with MBES. AWOIS item 10065 was confirmed as existing and least depth was found to be deeper than charted depth. Also, there is an obstruction which is shoaler than the barge 16m South of barge, on which this sounding was designated.

Feature Correlation

Source	Feature	Range	Azimuth	Status
_068_1728	1173/198	0.00	000.0	Primary
AWOIS H12017	AWOIS # 10065	15.20	072.0	Secondary

Hydrographer Recommendations

Hydrographer recommends updating AWOIS 10065 to reflect current survey depth as well as changing designation from Wk to Obstrn.

Cartographically-Rounded Depth (Affected Charts):

20ft (11416_1, 11412_1, 11451_17)

3 ½fm (1114A_1, 11400_1, 11006_1, 11013_1, 411_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: QUASOU - 6:least depth known
SORDAT - 20110104
SORIND - US,US,graph,H12107
TECSOU - 3:found by multi-beam
VALSOU - 6.303 m
WATLEV - 3:always under water/submerged

Office Notes

SAR: Concur. Obstruction found. chart obstruction with new survey information. Update AWOIS database with new survey position and least depth.

Feature Images

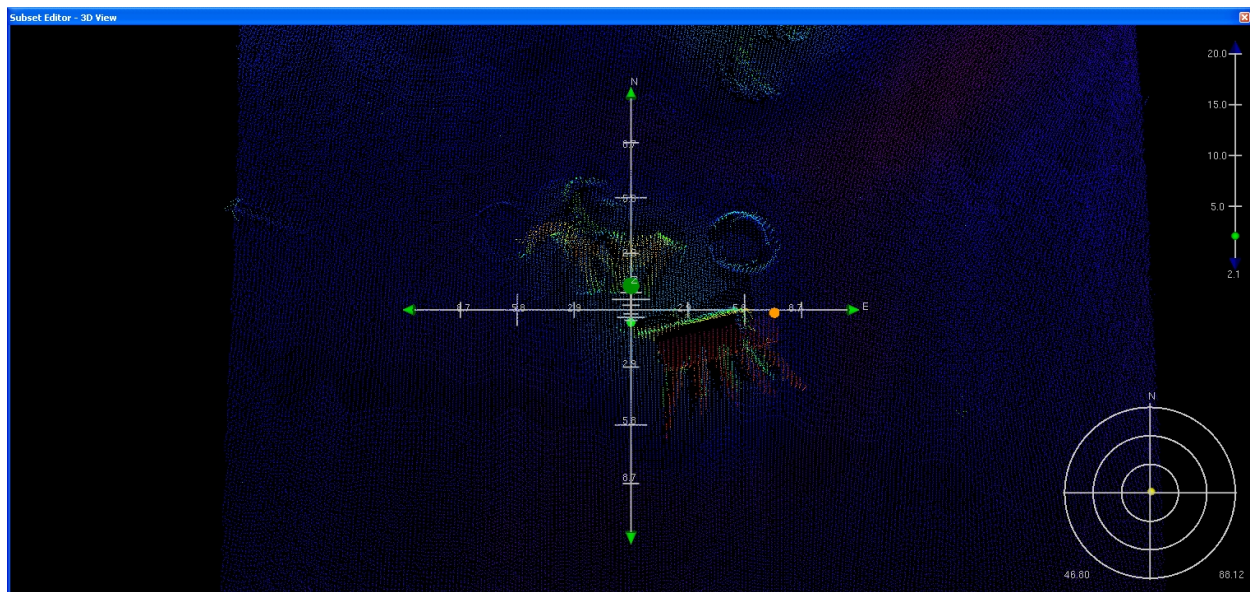


Figure 1.9.1

1.10) AWOIS #14436 - OBSTRUCTION

Primary Survey Feature is Profile/Beam 505/1 / 2010_207_mb012_1413

Search Position: 27° 47' 10.5" N, 082° 35' 42.2" W
Historical Depth: 6.10 m
Search Radius: 150
Search Technique: S2, ES, MB
Technique Notes: [None]

History Notes:

LNM46/96-- USCG; LNM added an 21 foot obstruction at 27°47'10.5" - 82°35'42.2".

Bp164418-- Revised least depth from 21 to 20 feet. (CEH 2/2009)

Survey Summary

Survey Position: 27° 47' 09.5" N, 082° 35' 42.2" W
Least Depth: 6.22 m (= 20.41 ft = 3.402 fm = 3 fm 2.41 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 2.021 m ; TVU (TPEv) ± 0.460 m
Timestamp: 2010-207.14:14:06.389 (07/26/2010)
Survey Line: h12017 / s3004_reson8125 / 2010-207 / 2010_207_mb012_1413
Profile/Beam: 505/1
Charts Affected: 11416_1, 11412_1, 1114A_1, 11400_1, 11451_17, 11006_1, 11013_1, 411_1

Remarks:

AWOIS 14436 detected in 200% SSS coverage and investigated using MBES. Least depth concurs with previously charted depth.

Feature Correlation

Source	Feature	Range	Azimuth	Status
2010_207_mb012_1413	505/1	0.00	000.0	Primary
_061_1709	1447/8	1.01	224.8	Secondary
2010_207_mb012_1413	391/62	22.85	080.3	Secondary (grouped)
AWOIS H12017	AWOIS # 14436	31.16	177.8	Secondary
2010_207_mb011_1410	1637/229	35.93	178.9	Secondary (grouped)
tb091001175600	0003	40.45	183.1	Secondary

2010_207_mb011_1410	1903/5	51.78	115.6	Secondary (grouped)
tb091001172000	0001	51.84	114.3	Secondary (grouped)
tb091001175600	0002	58.39	239.3	Secondary (grouped)
2010_207_mb011_1410	1277/235	59.43	241.8	Secondary (grouped)
_064_1712	400/104	74.70	245.5	Secondary (grouped)
2010_207_mb010_1407	596/2	75.14	171.6	Secondary (grouped)
tb091001172000	0003	77.48	171.2	Secondary (grouped)

Hydrographer Recommendations

Hydrographer recommends to retain as charted.

Cartographically-Rounded Depth (Affected Charts):

20ft (11416_1, 11412_1, 11451_17)

3 ¼fm (1114A_1, 11400_1, 11006_1, 11013_1, 411_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: QUASOU - 1:depth known
 SORDAT - 20110104
 SORIND - US,US,graph,H12017
 TECSOU - 3:found by multi-beam
 VALSOU - 6.222 m
 WATLEV - 3:always under water/submerged

Office Notes

SAR: Concur, obstruction found. Chart obstruction area as depicted in the HCell. Update AWOIS database with the survey position and least depth.

1.11) AWOIS #14437 - OBSTRUCTION

Primary Survey Feature is Profile/Beam 107/54 / _070_1724

Search Position: 27° 47' 15.5" N, 082° 35' 31.9" W
Historical Depth: 5.79 m
Search Radius: 150
Search Technique: S2, ES, MB
Technique Notes: [None]

History Notes:

LNM46/96-- USCG; LNM added a 19 ft Obstrn. (CEH 2/2009)

Survey Summary

Survey Position: 27° 47' 15.1" N, 082° 35' 32.6" W
Least Depth: 5.82 m (= 19.10 ft = 3.184 fm = 3 fm 1.10 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.983 m ; TVU (TPEv) ± 0.294 m
Timestamp: 2010-356.17:24:45.052 (12/22/2010)
Survey Line: h12017 / s3004_reson8125 / 2010-356 / _070_1724
Profile/Beam: 107/54
Charts Affected: 11416_1, 11412_1, 1114A_1, 11400_1, 11451_17, 11006_1, 11013_1, 411_1

Remarks:

Charted feature, AWOIS 14437 detected in 200% SSS coverage and investigated using MBES. Least depth is concurrent with charted depth.

Feature Correlation

Source	Feature	Range	Azimuth	Status
_070_1724	107/54	0.00	000.0	Primary
AWOIS H12017	AWOIS # 14437	22.53	238.5	Secondary

Hydrographer Recommendations

Hydrographer recommends retaining as charted.

S-57 Data

Geo object 1: Obstruction (OBSTRN)
Attributes: QUASOU - 6:least depth known
SORDAT - 20110104
SORIND - US,US,graph,H12017
TECSOU - 3:found by multi-beam
VALSOU - 5.823 m
WATLEV - 3:always under water/submerged

Office Notes

SAR: Concur. Obstruction found. Chart area obstruction as depicted in the HCell. Update AWOIS database with new survey position and least depth.

Feature Images

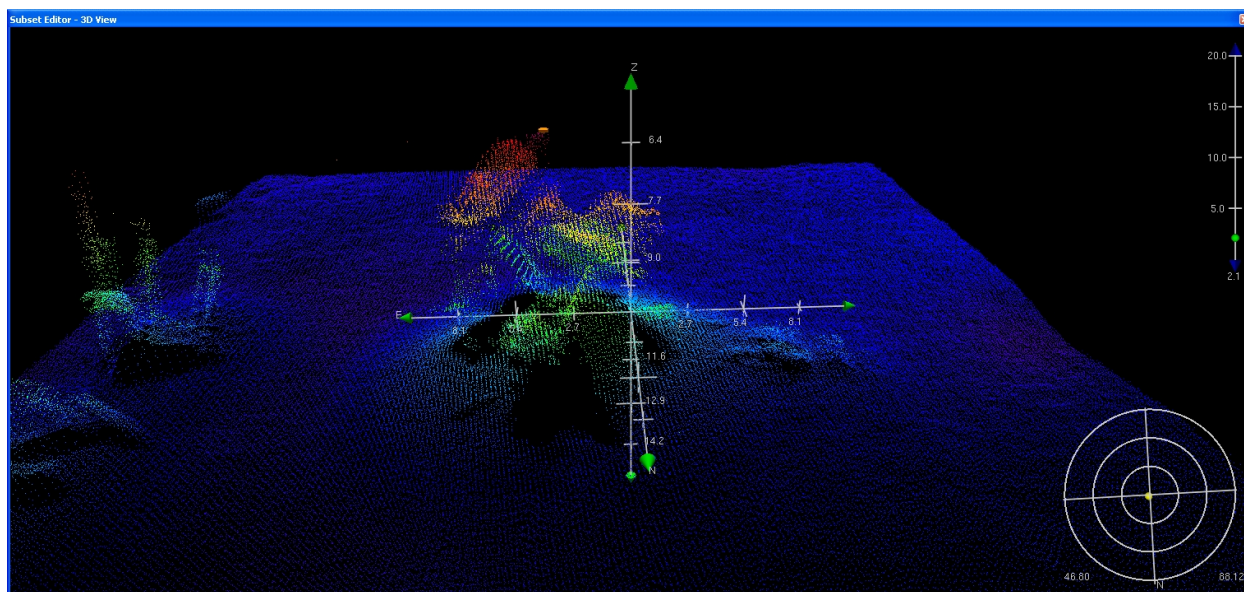


Figure 1.11.1

1.12) AWOIS #10295 - OBSTRUCTION

Primary Survey Feature is Profile/Beam 713/60 / 2010_207_mb003_1458

Search Position: 27° 46' 20.6" N, 082° 31' 04.4" W
Historical Depth: 3.35 m
Search Radius: 50
Search Technique: S2, MB, ES
Technique Notes: [None]

History Notes:

HISTORY

H-10623/95-96--OPR-J343-MI/AHP; DIVERS INVESTIGATED A 10 INCH IN DIAMETER WOODEN PILE, 1M OFF THE BOTTOM, LEAST DEPTH 11FT. EVALUATOR CONSIDERS THIS PART OF AWOIS 8807

Survey Summary

Survey Position: 27° 46' 20.5" N, 082° 31' 04.5" W
Least Depth: 3.66 m (= 12.02 ft = 2.003 fm = 2 fm 0.02 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.970 m ; TVU (TPEv) ± 0.276 m
Timestamp: 2010-208.14:59:25.479 (07/27/2010)
Survey Line: h12017 / s3004_reson8125 / 2010-208 / 2010_207_mb003_1458
Profile/Beam: 713/60
Charts Affected: 11416_1, 11412_1, 1114A_1, 11400_1, 11451_17, 11006_1, 11013_1, 411_1

Remarks:

Contact on currently charted Obstruction detected in 200% SSS coverage and investigated using MBES. Least depth agrees with chart.

Feature Correlation

Source	Feature	Range	Azimuth	Status
2010_207_mb003_1458	713/60	0.00	000.0	Primary
tb091014162700	0001	0.65	069.6	Secondary
AWOIS_#10295	AWOIS # 10295	4.98	206.0	Secondary

Hydrographer Recommendations

Hydrographer recommends retaining as charted.

Cartographically-Rounded Depth (Affected Charts):

12ft (11416_1, 11412_1, 11451_17)

2fm (1114A_1, 11400_1, 11006_1, 11013_1, 411_1)

S-57 Data

[None]

Office Notes

SAR: Concur, obstruction found. Chart obstruction with the new surveyed depth of 12 ft. as depicted in the HCell. Update AWOIS database with the new survey position and least depth.

Feature Images

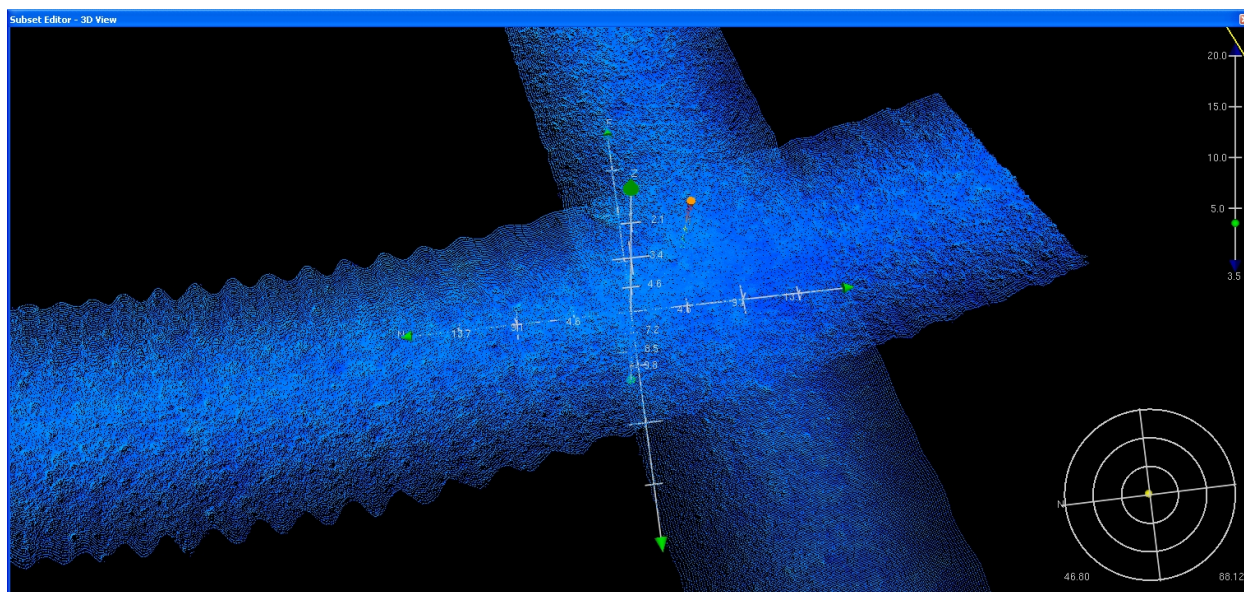


Figure 1.12.1

From: "Mora, Millan A SAJ" <Millan.A.Mora@usace.army.mil>
To: <Mark.Mcmann@noaa.gov>
Sent: Tuesday, September 14, 2010 10:16 AM
Subject: Re: Tampa Bay Cut "E"

Mark,

We are currently in the stages to award a dredging contract for cut a, cut e, cut f and cut g. We are planning to commence dredging by the end of november

Message sent via my BlackBerry Wireless Device

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

From: Mark Mcmann <Mark.Mcmann@noaa.gov>
To: Mora, Millan A SAJ
Sent: Tue Sep 14 13:21:12 2010
Subject: Tampa Bay Cut "E"

Milan,

I'm with NOAA Navigation Response Team 1 and we are currently surveying Tampa Bay. I corresponded with you last year about some shoal depths in Cut "C" channel and now we have found some shoal depths in the Cut "E" channel. I looked at the Corps website and found your latest survey from 8/09 and the same shoal depths were highlighted on that survey. Is dredging scheduled in that area or what is the next step? We would be obliged to report these depths as a Danger to Navigation unless the Corps has plans to rectify the situation. Please let me know of any recent or planned dredging.

Thank you for your help,

Mark



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

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE : January 11, 2011

HYDROGRAPHIC BRANCH: Atlantic
HYDROGRAPHIC PROJECT: OPR-J417-NRT1-2010
HYDROGRAPHIC SHEET: H12017 Rev

LOCALITY: Central Tampa Bay, FL
TIME PERIOD: December 21, 2010 - January 4, 2011

TIDE STATION USED: Port Manatee, FL 872-6384
Lat. 27° 38.2' N Long. 82° 33.9' W
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 0.586 meters
TIDE STATION USED: St. Petersburg, FL 872-6520
Lat. 27° 45.6' N Long. 82° 37.6' W
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 0.602 meters
TIDE STATION USED: Old Port Tampa, FL 872-6607
Lat. 27° 51.5' Long. 82° 33.2'
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 0.652 meters
TIDE STATION USED: McKay Bay, FL 872-6667
Lat. 27° 54.8' Long. 82° 25.5'
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 0.722 meters
REMARKS: RECOMMENDED Grid

Please use the preliminary zoning file "J417NRT12010CORP" submitted with the 2010 project instructions for OPR-J417-NRT1-2010. Zones TB60, TB74, TB81, TB84, TB86, and TB87 are the applicable zones for H12017_Rev during the time period between December 21 - December 22, 2010.

Please use the TCARI grid "J417NRT12011.tc" as the final grid for project OPR-J417-NRT1-11, H12017_Rev, during the time period of January 4, 2011.



Refer to attachments for grid information.

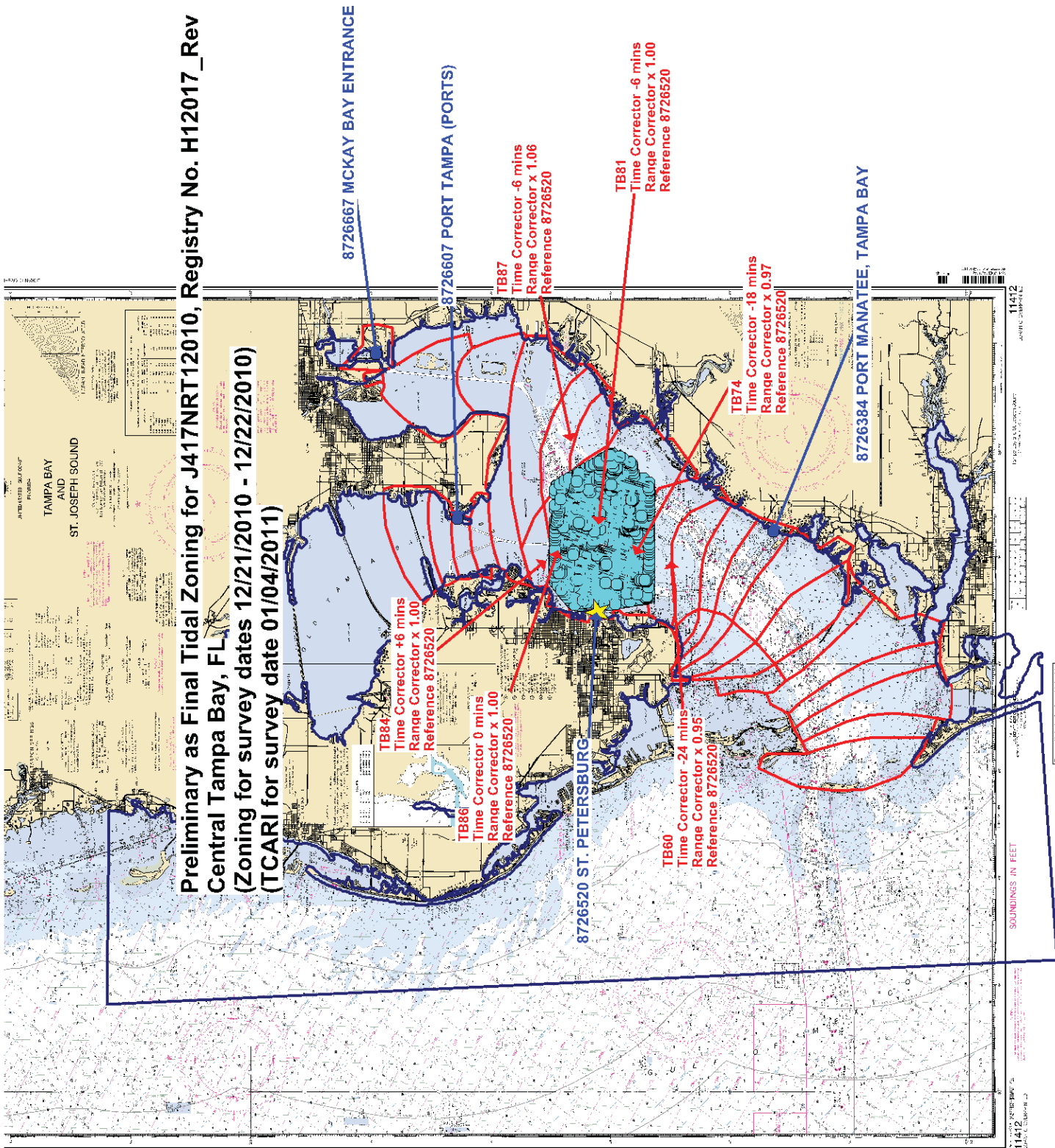
Note 1: Provided time series data are tabulated in metric units (meters), relative to MLLW and on Greenwich Mean Time on the 1983-2001 National Tidal Datum Epoch (NTDE).

Note 2: Final tidal zoning for survey dates between August 19, 2009 and November 27, 2010 was provided as sheet H12017 and emailed on September 7, 2010. Please refer to that tide note for these dates.

Peter J. Stone

Digitally signed by Peter J. Stone
DN: cn=Peter J. Stone, o=NOAA/NOS/CO-OPS,
ou=Oceanographic Division, email=peter.stone@noaa.gov, c=US
Date: 2011.01.19 07:09:40 -05'00'

CHIEF, OCEANOGRAPHIC DIVISION



Preliminary as Final Tidal Zoning for J417NRT12010, Registry No. H12017_Rev
Central Tampa Bay, FL
(Zoning for survey dates 12/21/2010 - 12/22/2010)
(TCRI for survey date 01/04/2011)

8726667 MCKAY BAY ENTRANCE

8726607 PORT TAMPA (PORTS)

TB87
Time Corrector -6 mins
Range Corrector x 1.06
Reference 8726520

TB81
Time Corrector -6 mins
Range Corrector x 1.00
Reference 8726520

TB74
Time Corrector -18 mins
Range Corrector x 0.97
Reference 8726520

8726384 PORT MANATEE, TAMPA BAY

TB84
Time Corrector +6 mins
Range Corrector x 1.00
Reference 8726520

TB86
Time Corrector 0 mins
Range Corrector x 1.00
Reference 8726520

TB80
Time Corrector -24 mins
Range Corrector x 0.95
Reference 8726520

8726520 ST. PETERSBURG

SOUNDINGS IN FEET

1412

1414

PHB Compilation Log

General Survey Info

Survey Number	H12017	Field Unit	NRT 1	State	FL	UTM Zone	17N
Project Number	OPR-J417-NRT1-09	Project Name (Locality)	Tampa Bay, FL.				
Start Date	08/19/2009	Sublocality	Central Tampa Bay				
End Date	01/04/2011	Survey Scale	1:10,000	Compilation Scale	1:40,000		

Affected Raster Charts

Chart	KAPP	Scale	Edition	Date	NTM Date
11416	2983	1:20000	10	10/01/2008	10/08/2011
11416	2985	1:40000	10	10/01/2008	10/08/2011

Add Chart

Remove Chart

Affected Electronic Charts

ENC	Scale
US5FL11M	1:40000
US5FL12M	1:40000

Add ENC

Remove ENC

Spatial Reference

Horizontal Datum	WGS84
Coordinate System	LLDG
Sounding Datum	MLLW
Vertical Datum	MHW

Junction Surveys

Survey Number	Survey Date	Location Relative to Current Survey
H12020	2009-2010	S
H12021	2009-2010	E
H12022	2009-2010	N

Add Survey

Remove Survey

HCell Compiler	Fernando Ortiz	QC Reviewer	Peter Holmberg	SAR Reviewer	Toshi Wozumi
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PHB Compilation Log

Processing Info

Source Surfaces		
Resolution	File Name	
4m	H12017_4m_combined	
Add Surface	Remove Surface	

Supporting Documents	
Name	Version
Specs and Deliverables	April 2011
HCell Specs	6.1
Add Doc	Remove Doc

Software Used		
Software	Version, HF	Used For
CARIS HIPS	7.0 SP2 HF3	SAR Review. Inspection of Combined BASE Surfaces.
Pydro	11.8	SAR Review. Generation of Features Reports.
CARIS BASE Editor	3.2 HF2	Creation of soundings and bathy-derived features, meta area object, and Blue Notes; Survey evaluation and verification; Initial HCell assembly.
CARIS S-57 Composer	2.2 HF4	Final compilation of the HCell, correct geometry and build topology, apply final attributes, export the HCell, and QA.
CARIS GIS	4.4a	Setting the sounding rounding variable for conversion of the metric HCell to NOAA charting units with NOAA rounding. (For Fathoms and Feet chart units only.)
CARIS HOM	3.3 SP3 HF8	Perform conversion of the metric HCell to NOAA charting units with NOAA rounding. (For Fathom and Feet chart units only)
CARIS Plot Composer	5.1 SP 2	Generate plots of CARIS Session files used for QC.
HydroService, dKart Inspector	5.1	Validation check of the base cell file.
Fugawi View ENC	1.0.0.3	Independent inspection of final HCells using COTS viewer.

Product Info

Deliverables		Horizontal and Vertical Units	
Chart Scale HCell	H12017_CS.000	During creation of the HCell all soundings and features are maintained in metric units with as high precision as possible. Depth units for soundings measured with sonar maintain millimeter precision. Depths on rocks above MLLW and heights on islets above MHW are typically measured with range finder, so precision is less.	
Survey Scale HCell	H12017_SS.000	Depth Units (DUNI)	Feet
HCell Report for MCD	H12017_HR.pdf	Height Units (HUNI)	Feet
Feature Listing	H12017_FL.txt	Positional Units (PUNI)	Meters
Descriptive Report	H12017_DR.pdf		
Survey Outline	H12017_Outline.gml and .xsd		

PHB Compilation Log

Radius Setting		
A survey-scale sounding (SOUNDG) feature object layer was built from the Combined Surface in CARIS BASE Editor. A shoal-biased selection was made at survey scale using a Radius Table file with values shown below.		
Radius (mm)	Min. Depth (m)	Max Depth (m)
3	-4.7	10
4	10	20
4.5	20	50
5	50	500

Contours			
Depth contours at the intervals on the largest scale chart are included in the SS HCell for MCD raster charting division to use for guidance in creating chart contours. With the exception of the zero contours included in the *_CS file, contours have not been deconflicted against shoreline features, soundings and hydrography.			
Charted Contours	Metric Equivalent	Metric- NOAA Rounded	Chart Contours - NOAA Rounded
6ft	1.8288	2.0574	6.75ft
12ft	3.6576	3.8862	12.75ft
18ft	5.4864	5.715	18.75ft
30ft	9.144	9.3726	30.75ft
Add Contour	Remove Contour		

Additional Info

Contact Information	Compilation Comments
Inquiries regarding this HCell content or construction should be directed to:	
HCell Compiler	
Phone Number	
Email	

APPROVAL SHEET
H12017

The survey evaluation and verification has been conducted according to branch processing procedures and the HCell compiled per the latest OCS HCell Specifications.

The survey and associated records have been inspected with regard to survey coverage, delineation of the depth curves, development of critical depths, S-57 classification and attribution of soundings and features, cartographic characterization, and verification or disproval of charted data within the survey limits. The survey records and digital data comply with OCS requirements except where noted in the Descriptive Report and are adequate to supersede prior surveys and nautical charts in the common area.

I have reviewed the HCell, accompanying data, and reports. This survey and accompanying digital data meet or exceed OCS requirements and standards for products in support of nautical charting except where noted in the Descriptive Report.