

H11218

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 No.*          **H11218**

**LOCALITY**

*State/Territory*      Florida

*General Locality*    St. Johns River

*Sub-locality*        Old Bull Bay to Hallowes Cove

**2004**

CHIEF OF PARTY  
**David B. Elliott -Team Leader**

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

## HYDROGRAPHIC TITLE SHEET

REGISTRY NUMBER:

**H11218**

INSTRUCTIONS: The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

FIELD NUMBER: N/A

State/Territory: **Florida**

General Locality: **St. Johns River**

Sub-Locality: **Old Bull Bay to Hallowes Cove**

Scale: **1:10,000** Date of Survey: Mar. 8, 2004 to Mar.25, 2004

Instructions Dated: **05 May 2003** Project Number: **OPR-G443-NRB**

Vessel: **NOAA Launch 1210**

Chief of Party: **David B. Elliott - Team Leader**

Surveyed by: **David Elliott, Robert Ramsey & Laurie Brennan (NRT2)**

Soundings by: **Innerspace 448**

Graphic record scaled by: **DE, RR, LB**

Graphic record checked by: **DE, RR, LB**

*Hewlett Packard Design Jet 2500CP (office)*

Protracted by: **N/A** Automated Plot: **HP-750C (field)**

Verification by: **Atlantic Hydrographic Branch Personnel**

Soundings in: **Meters Feet at MLLW**

Remarks: ***Bold, Red, Italic notes in Descriptive Report were made during office processing.***

***1) All Times are UTC.***

***2) This is a basic Hydrographic Survey under the Navigable Area Concept.***

***3) Projection is UTM Zone 17.***

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**DESCRIPTIVE REPORT**

**to accompany**

**HYDROGRAPHIC SURVEY H11218**

**Scale of Survey: 1:10,000**

**Year of Survey: 2003**

**Navigation Response Team 2 - Launch 1210**

**David B. Elliott- Team Leader**

**A. AREA SURVEYED**

This hydrographic survey was conducted in accordance with Port Letter Instructions for project OPR-G443-NRB, Brunswick Georgia to Jacksonville, Florida. The instructions are dated May 5, 2003.

The purpose of this project is to collect new hydrography in support of the NOAA led Coastal Storms Initiative and to update National Ocean Service (NOS) charts on the St. Johns River in the vicinity of Jacksonville, FL. Results from the investigations will also serve as a chart evaluation for NOS Electronic Nautical Charts (ENC). The hydrographic data from this project will help ensure navigational safety through updated critical nautical charts and provide new information for emergency response organizations to use in the event of a marine casualty or coastal storm.

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Survey Limits for Sheet "E" - H11218 are as follows:

30° 07' 40" N

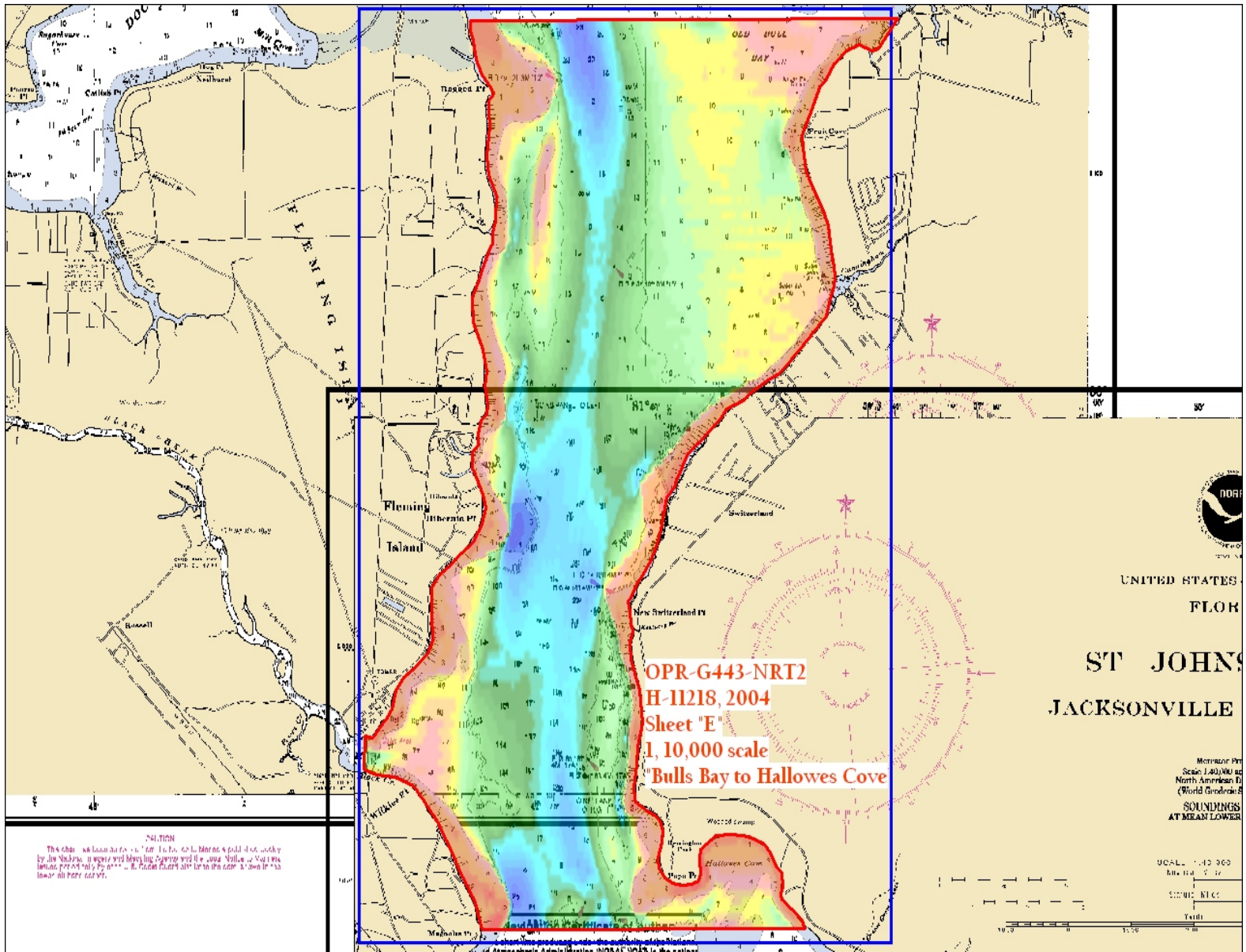
081° 37' 47" W

30° 01' 10" N

081° 42' 36" W

Survey Dates: Mar. 08, 2004 (DN: 068) to Mar. 25, 2004 (DN: 085)

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



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

### **B.1. EQUIPMENT**

Data were acquired by Navigation Response Team 2 and survey Launch 1210. The vessel was configured as described in the Data Acquisition and Processing Report (DAPR)\* for this project. Major data acquisition systems are summarized below. *\* Data filed at the Atlantic Hydrographic Branch (AHB).with original field records.*

An Innerspace model 455 depth sounder, S/Ns 189 was used to collect all echo soundings on this survey. A standard lead line calibrated in meters, S/N 1210, was used during this survey for comparison with the echo sounder. No problems were encountered with any of the sounding equipment.

A Klein 3110 side scan sonar recorder (S/N 315) with a model 3210 towfish (S/N 414), was used throughout this survey. The side scan sonar equipment was used to investigate AWOIS items.

A Trimble DGPS Beacon Receiver (S/N 0220261525) was used as the primary navigation station on launch 1210.

A Trimble Pathfinder ProXRS (S/N 0224010201) and antenna (S/N 0220170250) were used for all ENC high accuracy positioning and establishment of calibration points.

The instrument used for determining corrections for the speed of sound through the water column was a Seabird-Seacat Velocity Profiler, model 19-03, S/N 198671-1477.

NOAA launch 1210, a 27-foot SeaArk with a draft of 0.5 meters, was used to collect all survey data. There were no unusual vessel configurations or problems encountered with the vessel.

### **B.2. QUALITY CONTROL**

The integrity of the survey data for H11218 has been insured by following the Field Procedures Manual and the NOS Hydrographic Surveys Specifications and Deliverables Manual, June 2003.

The lead line for launch 1210 was calibrated using a steel tape on March 25, 2003(DN:084). No corrections were necessary. A static draft of 0.5 meters was applied to the sounding plots by the Carris program. The draft was measured by subtracting the difference from a punch mark on the side of launch 1210, 0.6 meter above the transducer, to the water surface.

Settlement and squat measurements for launch 1210 were taken on March 25, 2003(DN:084) These measurements were conducted in Jacksonville, FL on the St. Johns River using the level method. Settlement and squat correctors were applied to the sounding plots using the Carris program.

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

### **Side Scan Sonar Quality Control**

Daily confidence checks were conducted by observing side scan imagery in the vicinity of known contacts, such as buoys or sand waves. Side scan data were considered satisfactory if these contacts could be distinguished throughout the entire range of the side scan trace. The confidence checks were performed daily at 100kHz.

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

The system frequencies used were 100kHz and 500kHz. The recorder was set on one of either 50/75/100-meter range scales. There were no water depths greater than 35 meters.

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

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

**Junctions** *See also the Evaluation Report.*

Sounding Junctions were compared to H11216, 2003 north of H11218. The soundings compared favorably within 1 to 2 feet.

### **B.3. CORRECTIONS TO ECHO SOUNDING**

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

There are no deviations to be discussed in this section.

*\* Data filed with original records.*

### **C. VERTICAL AND HORIZONTAL CONTROL**

The instrument used for determining corrections for the speed of sound through the water column was a Seabird-Seacat Velocity Profiler. The manufacturer calibrated this unit on December 19, 2003. Data quality assurance tests were performed after each cast. Program VELOCWIN was used for computing the correctors. Corrections were applied to the sounding plot using the Carris HIPS.

Field tide reduction of soundings is based on unverified actual water levels from the NOAA Co-Ops site. The values are from Main Street Bridge station 872-0226 and are in six minute intervals. Values and correctors were applied at the perspective locations of Hydrography from the Zone files provided by CO-OPS/RDD.

All elevations and soundings on survey H11218 are based on MLLW unless otherwise specified.

A Request for Approved Tides letter was sent to N/OPS1 on April 6, 2004 (Appendix IV).

*Approved tides and zones were applied to survey in Caris during office processing.*

#### **Horizontal Control**

The horizontal datum used for this survey is the North American Datum of 1983 (NAD 83), projected using UTM zone 17. The control reference station used for this survey was the USCG DGPS Station at Savannah, GA (Station ID #818), located at 32°08.3156' N, 081°41.7798' W.

Horizontal dilution of precision (HDOP) was monitored on Hypack daily on all survey platforms. Neither value exceeded 4.00, and adequate satellite coverage was maintained throughout the survey period. All positioning equipment was operated in a manner consistent with the manufacturer's requirements and as described in the DAPR\*. There were no equipment malfunctions which affected the positional quality of the data.

*\* Data filed with original field records.*



## **D. RESULTS AND RECOMMENDATIONS**

There are two charts affected by this survey:

11492, 19 <sup>th</sup> edition, Nov. 24, 2001	1:40,000
11488, 24 <sup>th</sup> edition, May. 26, 2001	1:80,000

### **General Agreement with Charted soundings**

In general survey soundings compared with the charted soundings within two to three feet. The smooth tides may resolve some of these soundings. All charted soundings should be superseded by this survey. *Concur.*

Note: Due to the nature of this survey for the Coastal Storms Initiative (CSI) and primary need for contemporary bathymetry, extensive shoreline investigations were not conducted. However visual identifications conducted by NRT2 found regions alongshore in the form of Dols, piles and piers to be adequately charted. Unless otherwise noted in the sections below all features along shore visible or submerged should remain as charted. *Concur.*

### **The following is a list of notable sounding discrepancies on the chart:**

- 1.) The offshore 6 foot shoal at 30°06'31" N, 081°40'58" W has migrated due east approximately 60 meters. *Concur.*
- 2.) There is a scour approximately 500 meters long and 100 meters wide at 30°06'12.31"N, 081°41'11.0 "W. *Concur.*
- 3.) The isolated 5 foot sounding at 30°05'10.9"N, 081°41'10.0"W, does not exist and soundings in this region are now 16 to 18 feet. *Concur.*
- 4.) The isolated 3 foot sounding at 30°04'55.4"N, 081°41'09.9"W, does not exist and soundings in this region are now 18 feet. *Concur.*
- 5.) The offshore point at the six foot contour near Hibernia Point *in the vicinity of 30° 04'05.00"N, 81° 41'16.00"W* has receded 400 meters west. *Concur.*

- 6.) The six foot contour at Wilkies Point *in the vicinity of 30° 02'30.00"N, 81° 42'00.00"W* has migrated northeast 830 meters. **Concur.**
- 7.) The six foot contour at New Switzerland Point *in the vicinity of 30° 03'43.00"N, 81° 40'19.00"W* has migrated north 230 meters. **Concur.**
- 8.) The six foot contour at 30°04'14.7.0"N, 081°39'49.0"W, has migrated west 450 meters. **Concur.**
- 9.) The geographic region Old Bull Bay *in the vicinity of 30° 07'30.00"N, 81° 38'30.00"W* shows significantly shallower depths by two to three feet. This is most likely from tidal deposits and sedimentary discharges from Julington Creek. **Concur.**

**The following is a list of items that were investigated or disproved by 200% side scan sonar: *See also the Evaluation Report.***

- 1.) The submerged pile ( AWOIS # 11774) at 30°07'34.06"N, 081°40'50.23"W, was identified and located at a new position. The submerged pile should be charted at 30°07'33.76"N, 081°40'48.84"W. The least depth by echo sounder was 4.43 meters (14.0 feet). **Concur. Delete the Subm pile. Chart a dangerous 14 Obstn.**
- 2.) The obstruction ( AWOIS # 11775) at 30°07'03.28"N, 081°40'03.38"W, does not exist. This symbol should be removed from the chart. There are three new features in close proximity that were found and will require charting at the new survey positions below.
- A. A submerged wreck at 30°06'58.08"N, 081°40'05.43"W, least depth is ~~12.0~~**11** feet. **Submitted as a DTON.**
  - B. An obstruction at 30°06'56.81"N, 081°40'10.67"W, least depth is 15.0 feet.
  - C. An obstruction at 30°06'56.3.14"N, 081°40'06.40"W, least depth is 13.0 feet.
- These features can be found in the AWOIS report for AWOIS 11775. **Concur.**
- 3.) A contact was found at 30°04'52.32"N, 081°41'04.73"W, and designated as sounding on obstruction with a least depth of 14 feet. **Concur. Chart a dangerous 14 Obstn.**
- 4.) A contact was found at 30°03'45.09"N, 081°40'23.80"W, and designated as insignificant by elevation. **Concur. The feature is not shown on the present survey.**
- 5.) A submerged obstruction was found at 30°01'30.15"N, 081°41'13.89"W, and designated as insignificant by elevation. **Do not concur. Chart a dangerous 22 Obstn.**

The side scan report, abstracts and contacts can be found in Seperates section II..\*

**The following is a list of Charted sounding notations that were investigated by echo sounder.**

There were no sounding notations within the confines of H11218.

***\*Data filed with the original field records.***

**The following is a list of features that were investigated by echo sounder.**

- 1.) The charted submerged dols report (AWOIS # 11776) at 30°05'43.86"N, 081°38'44.32"W, does not exist and should be removed from the chart. An extensive echo sounder development was conducted in this region. *Concur. Delete the notation Subm dols rep.*
- 2.) The dol (AWOIS # 11777) at 30°05'44.05"N, 081°38'47.32"W, was located near the charted position. A detached position was taken on this feature at 30°05'44.22"N, 081°38'46.84"W. This feature was Awash and should be revised to the new survey position. *Concur. Revise charted visible dol to Subm dol.*
- 3.) A charted submerged wreck near shore at 30°02'00.38"N, 081°40'00.48"W, does not exist. An extensive echo sounder development was conducted in this region. *Concur, delete dangerous sunken wreck.*

**The following is a list of Charted items that were visually investigated.**

- 1.) The platform at 30°05'52.08"N, 081°38'23.32"W, is now submerged at the end of a charted sewer outfall. There is a two foot least depth on this feature which should be revised to ruins. *Concur. Revise platform to submerged platform ruins.*
- 2.) The charted piles PA (4) at 30°02'08.44"N, 081°40'14.62"W, do not exist and should be removed from the chart. A detached position was taken on a four pile cluster of piles at the off shore end of charted ruins at 30°02'04.59" N, 081°40'10.37"W. This position was taken at the center of the piles. *Concur. See also the Evaluation Report. (Also submitted as a DTON)*
- 3.) A steel obstruction awash was located near shore at 30°04'19.98"N, 081°39'51.36"W. This feature was submitted as advance information as a DTON to MCD. This feature is new and was not previously charted. *Concur, chart an Obstn and symbol.*

**AWOIS Item Investigations**

There were four AWOIS items within the survey limits. All items were addressed and can be found in the descriptions above for Results and Recommendations and in the AWOIS Report with the survey data in the Appendices Section V. *Data filed with the original field records.*

Dangers to Navigation *See also the Evaluation Report.*

There were three DTONS within the confines of H11218, the reference for these features can be found in the Appendices section I. The geographic locations for these DTONS are all new positions to the chart. These items were submitted in advance to MCD. *The DTON report is appended to the Descriptive Report.*

## **D. 2. ADDITIONAL RESULTS**

### **Aids to Navigation and Other Detached Positions**

All Navigation Aids serve their intended purpose. Charted positions should be superseded by new survey positions. *Concur. Defer to Marine Charting Division (MCD) Update Service Branch for charting recommendations for aids to navigation.*

There are no floating aids within the confines of H11218. *Concur.*

### **Ferry Routes**

There are no Ferry routes within the confines of H11218. *Concur.*

### **Submarine Cables and Pipelines**

There is one submerged cable crossing and no overhead cable crossings areas within the confines of H11218. They are charted adequately. *Concur.*

### **Bridges**

There is one bridge within the confines of H11218. Vertical and horizontal bridge clearances were checked by NRT2 and are adequately charted. *Concur.*

**Note:** The Hwy 17 bridge is portrayed with a single span on the chart but actually has two spans. The western span is not charted. *Concur.*


## **E. APPROVAL SHEET**

OPR-G443-NRB  
St. Johns River  
Jacksonville, FL  
Survey Registry No. H11218

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:**



**David B. Elliott - Team Leader  
Navigation Response Team 2**

## DTON's for Survey H-11218,2004

**Registry Number:** H-11218  
**State:** Florida  
**Locality:** Atlantic Ocean, St. Johns River  
**Sub-locality:** Old Bull Bay to Hallowes Cove  
**Project Number:** OPR-G443-NRT2  
**Survey Dates:** 03/24/2004 - 03/25/2004

The following items were deemed to be Dangers to Navigation.

### Charts Affected

Number	Version	Date	Scale
11492	19th Ed.	11/24/01	1:40000
11488	24th Ed.	05/26/01	1:80000
11480	37th Ed.	10/21/00	1:449659
11451	30th Ed.	11/17/01	1:495362
11006	30th Ed.	04/20/02	1:875000
11009	36th Ed.	10/20/01	1:1200000
411	48th Ed.	04/28/01	1:2160000

### Features

Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
--------------	--------------	-----------------	------------------	------------

Sounding	3.60 m	030° 06' 58.083" N	81° 40' 05.438" W	11775
Pile	-1.04 m	030° 02' 04.597" N	81° 40' 10.374" W	---
Sounding	-0.34 m	030° 04' 19.977" N	81° 39' 51.364" W	---

## **1 - Features from Bathymetry**



## 1.1) Subm Wrk (Awois 11775)

### DANGER TO NAVIGATION

#### Primary Feature for AWOIS Item #11775

**Search Position:** 30.11490556, -81.66848056

**Historical Depth:** [None]

**Search Radius:** 0

**Search Technique:** S2,ES,DI,SD

**Technique Notes:** SEARCH 200M OUT FROM AN AXIS DRAWN BETWEEN POS. 30-06-46.0 N 081-40-08.5 W AND 30-07-09.15 N 081-40-01.2 W

#### History Notes:

CL1286/76--COE; OBSTRUCTION WITH A DEPTH OF 4.5FT DEPTH REP, WAS REPROTED BY A PRIVATE CITIZEN, MR. JAMES FILICIA, AND HAS NOT BEEN CONFIRMED BY THE COE OR U.S. COAST GUARD. LNM33/76--CGD7(7/29/76); ADD 4.5FT DEPTH REP 1976 AT 30-06-52N 081-40-07W NAD27. REFERENCE TO CL1286/76 CL1479/77--ITEM DESCRIBED AS NUMBER 21 WAS TO LOCATE, IDENTIFY AND DETERMINE THE DEPTH OVER THE OBSTRUCTION SHOWN AS COVERED BY 12 FT. THE AREA OF THE OBSTRUCTION WAS CHAIN DRAGGED FOR ON JANUARY 25, 1977 AND FEBRUARY 2, 1977. AN OBSTRUCTION WAS LOCATED AT LATITUDE 30 06 52.8N, LONGITUDE 081 40 07.2W NAD27. THE OBSTRUCTION WAS SUBMERGED 11.6 FEET AT MLW. UNABLE TO IDENTIFY WHAT THE OBSTRUCTION WAS DUE TO WATER DEPTH, IT IS RECOMMENDED THAT THE OBSTRUCTION REMAIN AS CHARTED. ENTERED RFE 03/03 \*\*\*\* NOTE; WRECK CHARTED IN POS. 30-07-03.23 N 081-40-03.24 W FROM UNKOWN SOURCE.

### Survey Summary

**Survey Position:** 030° 06' 58.083" N, 81° 40' 05.438" W  
**Least Depth:** 3.60 m  
**Timestamp:** 2004-084.17:01:01.901 (03/24/2004)  
**Survey Line:** h-11218\_e / 1210sb / 2004-084 / 017\_1700  
**Profile/Beam:** 186/1  
**Charts Affected:** 11492\_1, 11451\_17, 11006\_1, 411\_1

**Remarks:**

Awois 11775. Subm Wrk.Bow to SE lieing on NW/SE axis. Approx. 11m LOA beam 6m.

**Feature Correlation**

Line	Feature	Range	Azimuth	Status
e:/hydrographic_survey_digital_filing_system/caris/hips/hdcs_data/h-11218_e/1210sb/2004-084/017_1700	186/1	0.00	000.0	Primary
e:/hydrographic_survey_digital_filing_system/caris/hips/hdcs_data/h-11218_e/1210sss500k/2004-085/sss040324165601	0001	0.35	260.9	Secondary
e:/hydrographic_survey_digital_filing_system/caris/hips/hdcs_data/h-11218_e/1210sss500k/2004-085/sss040324171200	0001	0.47	105.1	Secondary
e:/hydrographic_survey_digital_filing_system/caris/hips/hdcs_data/h-11218_e/1210sss500k/2004-085/sss040324164500	0002	0.89	025.8	Secondary
e:/hydrographic_survey_digital_filing_system/caris/hips/hdcs_data/h-11218_e/1210sss500k/2004-085/sss040324161900	0001	0.95	111.2	Secondary
e:/hydrographic_survey_digital_filing_system/caris/hips/hdcs_data/h-11218_e/1210sss500k/2004-085/sss040324170000	0001	3.18	345.3	Secondary
e:/hydrographic_survey_digital_filing_system/caris/hips/hdcs_data/h-11218_e/1210sss500k/2004-085/sss040324162700	0001	4.55	122.4	Secondary (grouped)
OPR-G443awois03_all	AWOIS # 11775	139.85	012.1	Secondary (grouped)
e:/hydrographic_survey_digital_filing_system/caris/hips/hdcs_data/h-11218_e/1210sb/2004-084/011_1546	743/1	145.56	074.3	Secondary (grouped)
e:/hydrographic_survey_digital_filing_system/caris/hips/hdcs_data/h-11218_e/1210sss500k/2004-085/sss040324170900	0001	154.08	012.0	Secondary (grouped)

## Hydrographer Recommendations

LD sounding on submered wreck. **Concur, chart 11 ft wreck. See also section D.2)A. of the Evaluation Report.**

### Cartographically-Rounded Depth (Affected Charts):

12ft (11492\_1, 11451\_17)

2fm (11006\_1, 411\_1)

## Feature Images

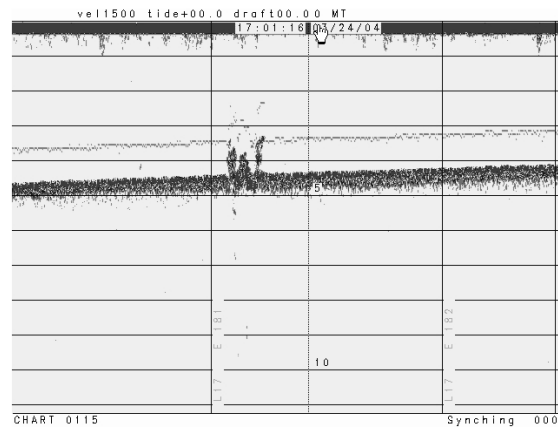


Figure 1.1.1

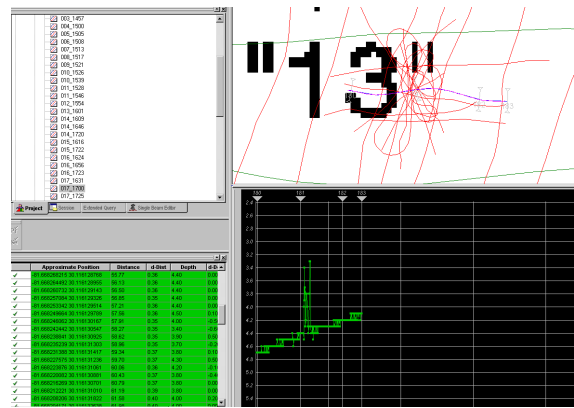


Figure 1.1.2

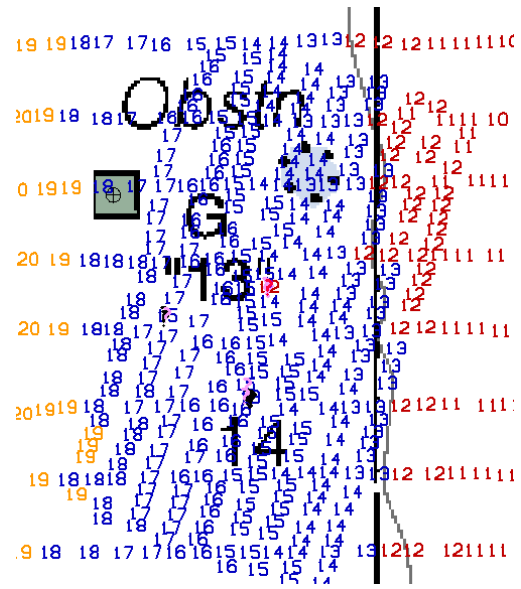


Figure 1.1.3

## **2 - Detached Positions (DPs)**

**2.1) cen. of 4 visible piles****DANGER TO NAVIGATION****Survey Summary**

**Survey Position:** 030° 02' 04.597" N, 81° 40' 10.374" W  
**Least Depth:** -1.04 m  
**Timestamp:** 2004-085.15:33:58.000 (03/25/2004)  
**DP Dataset:** H-11218\_E / 1210dp\_Non\_Echosounder / 2004-085 / H-11218-E-NAVAIDS  
**Profile/Beam:** 1/1  
**Charts Affected:** 11492\_2, 11451\_17, 11006\_1, 411\_1

**Remarks:**

Located cluster of four piles baring around one awash in the center. Appears to be remains of pier ruins exting from shore. Position was acquired on the center off the ruins os end. Area is foul to a 10m radius from this point and connects to ruins from shore currently charted to the ENE.

**Feature Correlation**

Line	Feature	Range	Azimuth	Status
E:/Hydrographic_Survey_Digital_Filing_System/Caris/Hips/HDCS_DATA/H-11218_E/1210dp_Non_Echosounder/2004-085/H-11218-E-NAVAIDS	1/1	0.00	000.0	Primary

## Hydrographer Recommendations

Remove the currently charted four piles PA at 320° 150m away. Extend the current offshore end of the charted ruins at 30.03479704 N, -081.66902479 W, to the gp of 30°02'04.547" N, -081°40'10.359" W. **Concur, chart extension of pier ruins. See also section D.4. of the Evaluation Report.**

### Cartographically-Rounded Depth (Affected Charts):

-4ft (11492\_2, 11451\_17)

0 ½fm (11006\_1, 411\_1)

## Feature Images



*Figure 2.1.1*



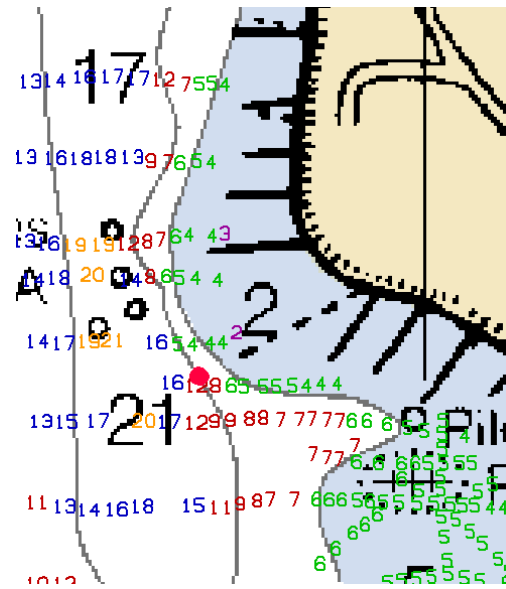


Figure 2.1.2

## 2.2) Steel Obstruction Awash (5 meter radius)

### DANGER TO NAVIGATION

#### Survey Summary

**Survey Position:** 030° 04' 19.977" N, 81° 39' 51.364" W  
**Least Depth:** -0.34 m  
**Timestamp:** 2004-085.16:00:49.000 (03/25/2004)  
**DP Dataset:** H-11218\_E / 1210dp\_Non\_Echosounder / 2004-085 / H-11218-E-NAVAIDS  
**Profile/Beam:** 2/1  
**Charts Affected:** 11492\_1, 11492\_2, 11488\_1, 11480\_1, 11451\_17, 11006\_1, 11009\_1, 411\_1

**Remarks:**

Visual observed steel obstr awash was positioned. Consider area to be foul to 5m of gp.

#### Feature Correlation

Line

Feature Range Azimuth Status

Line	Feature	Range	Azimuth	Status
E:/Hydrographic_Survey_Digital_Filing_System/Caris/Hips/HDCS_DATA/H-11218_E/1210dp_Non_Echosounder/2004-085/H-11218-E-NAVAIDS	2/1	0.00	000.0	Primary

## Hydrographer Recommendations

Chart obstr awash with foul limit at  $30^{\circ}04'19.952''$  N ,  $-081^{\circ}39'51.356''$  W. **Concur, chart an obstruction uncovers 1 ft MLLW.**

### Cartographically-Rounded Depth (Affected Charts):

-1ft (11492\_1, 11492\_2, 11488\_1, 11451\_17)

0fm (11480\_1, 11006\_1, 11009\_1, 411\_1)

## Feature Images



*Figure 2.2.1*

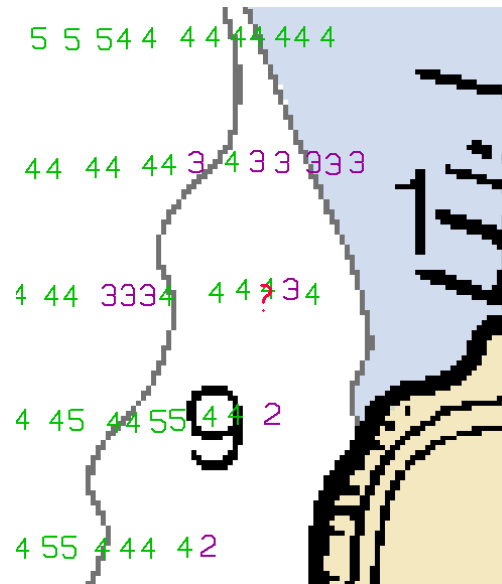


Figure 2.2.2



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL OCEAN SERVICE  
Silver Spring, Maryland 20910

**TIDE NOTE FOR HYDROGRAPHIC SURVEY**

**DATE:** June 24, 2004

**HYDROGRAPHIC BRANCH:** Atlantic  
**HYDROGRAPHIC PROJECT:** OPR-G443-NRT2-2004  
**HYDROGRAPHIC SHEET:** H11218

**LOCALITY:** Old Bull Bay to Hallows Cove, St. John's River, FL  
**TIME PERIOD:** March 9-26, 2004


**TIDE STATION USED:** 872-0357 I-295 Bridge, FL  
Lat. 30° 11.5'N Lon. 81° 41.5'W  
**PLANE OF REFERENCE (MEAN LOWER LOW WATER):** 0.000 meters  
**HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE:** 0.309 meters

**TIDE STATION USED:** 872-0503 Red Bay Point, FL  
Lat. 29° 58.7'N Lon. 81° 37.7'W  
**PLANE OF REFERENCE (MEAN LOWER LOW WATER):** 0.000 meters  
**HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE:** 0.272 meters

**REMARKS: RECOMMENDED ZONING**  
**Use zone(s) identified as:** SJR43, SJR44, SJR45, SJR46, SJR47, SJR47A, SJR48 & SJR49.

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.

*Fa*   
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CHIEF, REQUIREMENTS AND DEVELOPMENT DIVISION

**ATLANTIC HYDROGRAPHIC BRANCH  
EVALUATION REPORT FOR H11218 (2004)**

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**

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

Hydrographic Processing System  
MicroStation J, version 07.01.04.16  
I/RAS B, version 07.01.000.18  
MapInfo, version 6.5  
CARIS HIPS/SIPS 5.3  
PYDRO, version 3.7.1

The smooth sheet was plotted using a Hewlett Packard DesignJet 2500CP plotter.

**B.2. QUALITY CONTROL**

**Junctions**

H11216 (2003) to the north

A standard junction has been effected between the present survey and survey H11216 (2003).

**C. VERTICAL AND HORIZONTAL CONTROL**

Horizontal control used for this survey during data acquisition is based upon the North American Datum of 1983 (NAD83), UTM Zone 17N. Office processing of this survey is based on these values.

**D. RESULTS AND RECOMMENDATIONS**

**COMPARISON WITH CHART 11492 (19<sup>th</sup> Edition, Nov 24/01)**

The charted hydrography originates with the 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:

### Side scan sonar item investigations

2.) Automated Wreck and Obstruction Information System (AWOIS) Item #11775 is a charted dangerous obstruction, in Latitude 30°07'03.28"N, Longitude 81°40'03.38"W. The feature was investigated and disproved by the hydrographer. It is recommended that the charted dangerous obstruction be deleted.

A. An uncharted sunken wreck with a depth of 11 feet was located by the hydrographer in Latitude 30°06'58.08"N, Longitude 81°40'05.43"W. It is recommended that a dangerous wreck with a depth of 11 feet be charted as shown on the present survey.

B. The hydrographer located an uncharted obstruction with a depth of 15 feet in Latitude 30°06'56.81"N, Longitude 81°40'10.67"W. It is recommended that a dangerous obstruction with a depth of 15 feet be charted as shown on the present survey.

C. The hydrographer located an uncharted obstruction with a depth of 13 feet in Latitude 30°06'53.14"N, Longitude 81°40'06.40"W. It is recommended that a dangerous obstruction with a depth of 13 feet be charted as shown on the present survey.

### Charted items: visually investigated

2.) The hydrographer disproved the existence of four Piles PA in Latitude 30°02'08.44"N, Longitude 81°40'14.62"W. It is recommended that the four Piles PA be removed from the chart.

The hydrographer located an uncharted cluster of four piles in Latitude 30°02'04.59"N, Longitude 81°40'10.37"W. These piles are the off shore extension of a charted pier in ruins. It is recommended that the charted pier ruins be extended to reflect the present survey findings.

### Uncharted Features

1. The hydrographer located an uncharted extension of a charted pier in Latitude 30°05'46.37"N, Longitude 81°38'21.94"W. It is recommended that the pier be extended as shown on the present survey.

2. The hydrographer located an uncharted dangerous obstruction with a depth of 22 feet Latitude 30°01'30.15"N, Longitude 81°41'13.89"W. It is recommended that a dangerous obstruction with a depth of 22 feet be charted in the position located by the present survey.

**Charted items: not investigated**

The following charted depths and features are not considered verified nor disproved by the present survey:

<u>CHARTED FEATURE/DEPTH</u>	<u>LATITUDE (N)</u>	<u>LONGITUDE (W)</u>
Platforms PA	30°02'58.10"	81°40'08.38"
Platforms PA	30°03'05.36"	81°40'09.35"
1 ft depth	30°03'00.64"	81°40'08.35"
Dolphin PA	30°04'36.32"	81°39'46.90"
Platform PA	30°04'46.82"	81°39'37.82"
Platforms PA	30°05'01.43"	81°39'18.18"
Platforms PA	30°05'04.22"	81°39'12.17"
Subm Piles	30°05'53.50"	81°38'23.80"
Subm Piles	30°05'57.74"	81°38'27.75"
Pile	30°06'52.03"	81°38'44.09"
Dolphin	30°02'42.23"	81°42'17.04"
Islet	30°05'26.89"	81°38'34.01"
Pile	30°07'32.56"	81°38'03.50"
Pile	30°05'05.02"	81°39'07.28"
Piles PA	30°02'02.61"	81°40'00.41"
1 ft depth	30°01'31.39"	81°39'33.17"
5 ft depth	30°01'17.23"	81°39'36.38"
2 ft depth	30°02'06.35"	81°41'52.00"

It is recommended that these items be retained as charted.

The present survey is adequate to supersede the charted hydrography within the common area.

**Dangers to Navigation**

One Danger To Navigation Report, discussing three features, has been submitted by the hydrographer to the Marine Chart Division, N/CS3x1, Silver Spring, Maryland. A copy of these reports are appended to the Descriptive Report.

**Miscellaneous**

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 Chart was used for compilation of the present survey.

11492 (19<sup>th</sup> Edition, Nov 24/01)

**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**

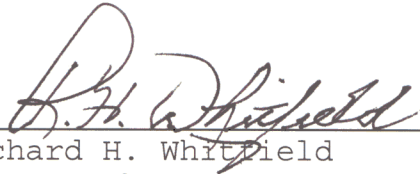
This is an adequate hydrographic/side scan sonar survey. No additional field work is recommended.

A handwritten signature in dark ink, appearing to read 'Joe Burke', written over a horizontal line.

**Joseph Burke**  
Verification of Field Data  
Evaluation and Analysis

APPROVAL SHEET  
H11218 (2004)

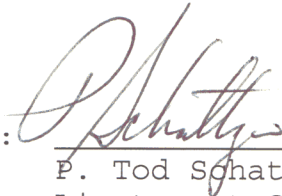
The completed survey has been inspected with regard to survey coverage, delineation of depth curves, development of critical depths, cartographic symbolization, and verification or disproof of charted data. All revisions and additions made to the smooth sheet during survey processing have been entered in the digital data for this survey. The survey records and digital data comply with NOS requirements except where noted in the Evaluation Report.



Richard H. Whitfield  
Cartographer,  
Atlantic Hydrographic Branch

Date: 8/04/04

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



Approved: \_\_\_\_\_  
P. Tod Schattgen  
Lieutenant Commander, NOAA  
Chief, Atlantic Hydrographic Branch

Date: 11/2/04

