



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

## HYDROGRAPHIC TITLE SHEET

REGISTRY NUMBER:

**H11089**

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~~ "A"

State/Territory: **Florida**

General Locality: **St. Johns River**

Sub-Locality: ~~East and South of Jacksonville~~ **Chaseville to Hendricks Point**

Scale: **1:10,000** Date of Survey: **Feb. 6, 2002- Apr.30-2002**

Instructions Dated: **13 Dec 01** Project Number: **OPR-G443-NRB**

Vessel: **NOAA Launch 1210**

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

Surveyed by: **David Elliott, Mark McMann & Robert Ramsey (NRT2)**

Soundings by: **Innerspace 448**

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

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

*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: *\* 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 H11089**

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

**Year of Survey: 2002**

**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 December 13, 2002.

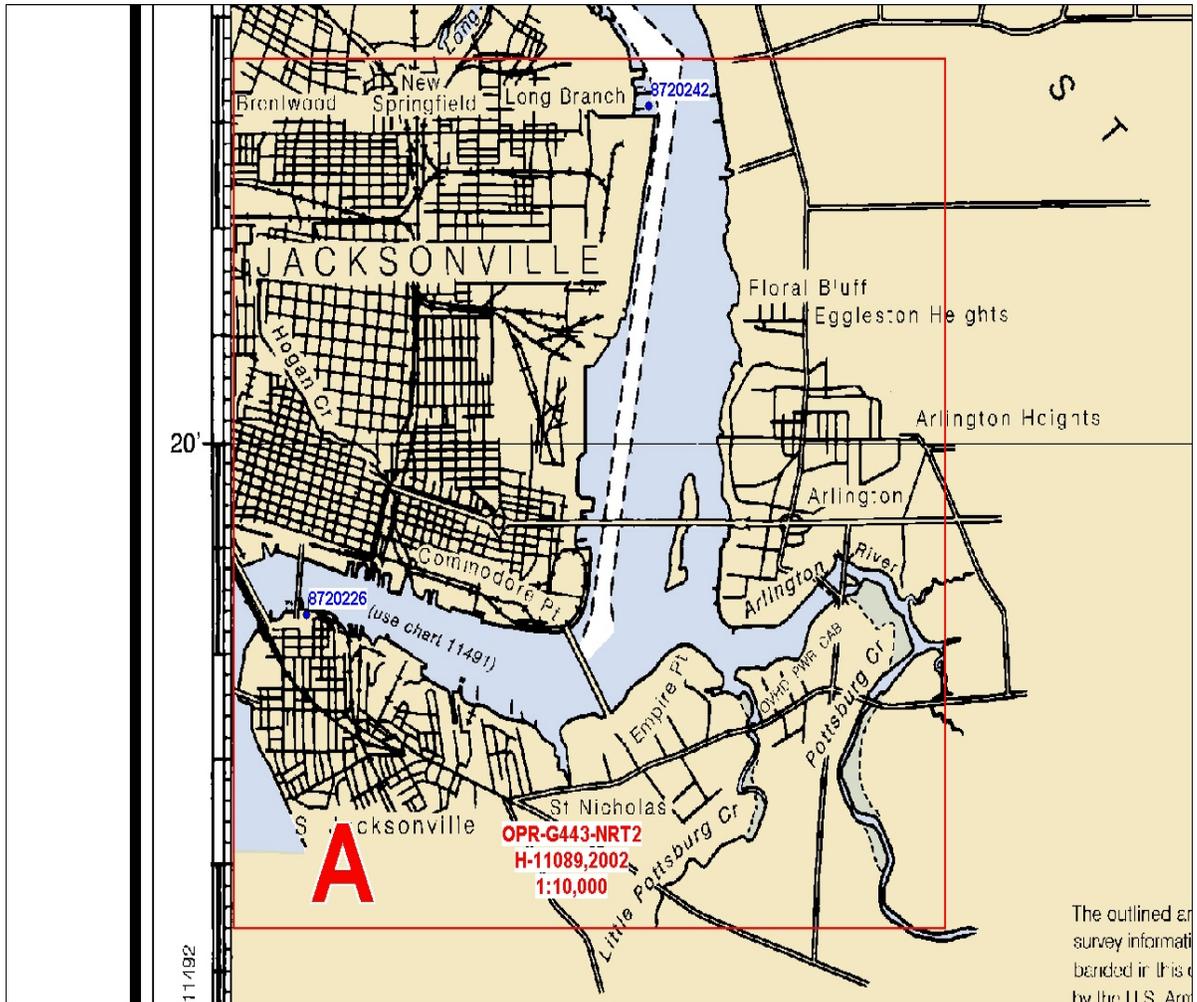
The purpose of Field Examination H-11089 is to collect new hydrography, investigate and resolve a number of deficiencies that exist on National Ocean Service Charts in the Ports from Brunswick, GA and Jacksonville, FL. Results from the investigations and hydrography obtained for this project will be used to update NOS Nautical Charts and serve as a chart evaluation for NOS Electronic Nautical Charts (ENC).

Survey Limits for Sheet "A" H-11089 are as follows:

30°21'49" N *30°18'00" S*  
081°39' 57" W *81°40'00" W*  
30°17'42" N *30°22'30" N*  
081°35'12" W *81°35'30" E*

Survey Dates: February 6, 2002 - April 30, 2002

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



## **B. DATA ACQUISITION AND PROCESSING**

### **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.

An Innerspace model 448 depth sounder, S/Ns 188 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.

An Edge Tech ACI digital interface image correcting side scan sonar recorder (S/N 027573) with a model 272-TD towfish (S/N 020892), 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 H-11089 has been insured by following the Field Procedures Manual and the NOS Hydrographic Surveys Specifications and Deliverables Manual, June 2000.

The lead line for launch 1210 was calibrated using a steel tape on Nov.27, 2001(DN:331). 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 Nov.27, 2001(DN:331). 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 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 frequency used was 100kHz. 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 Edgetech system. When cable-out was approximately 7 meters or less, minor degradation of the side scan imagery and Innerspace echosounder traces were noted due to cross-talk between the two systems.

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

## **Junctions**

~~There were no survey sounding junctions for comparison on H-11089.~~ ***Do not concur.***  
***See evaluation report***

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

All survey methods and instruments were implemented as described in the **\*Correction to Echo Soundings** section of the DAPR for this project.

A table detailing all sound velocity casts is contained in **\*Separates III - Sound Velocity Profile Data**. Sound velocity data has been submitted on **\*CD-ROM** 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. Refer to **\*Section C Correction to Echo Soundings** of the **Data Acquisition and Processing Report**.

***\*Data filed with field 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 5, 2001. 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 heights from the Internet from station Mayport, FL 872-0218. The values were downloaded from:  
[http://www.opsd.nos.noaa.gov/data\\_retrieve.shtml?input\\_code=101011111pwl](http://www.opsd.nos.noaa.gov/data_retrieve.shtml?input_code=101011111pwl).  
Values and correctors were applied at the perspective locations of Hydrography from the Port Instructions.

All elevations and soundings on survey H-11089 are based on MLLW unless otherwise specified.

A Request for Approved Tides letter was sent to N/OPS1 on June 1, 2002 \*(Appendix IV).

### **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 *Latitude* 32°08.3156' N, *Longitude* 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.

## **D. RESULTS AND RECOMMENDATIONS**

### **D.1. CHART COMPARISON**

There are two charts affected by this survey:

11491, 33rd edition, March 24, 2001 1:20,000  
11492, 18<sup>th</sup> edition, October 24, 1998, 1:40,000

*\*Data filed with field records*

## General Agreement with Charted soundings

In general survey soundings compared favorably with the charted soundings within one to three feet. There are some areas of change in the controlling depths investigated during H-11089.

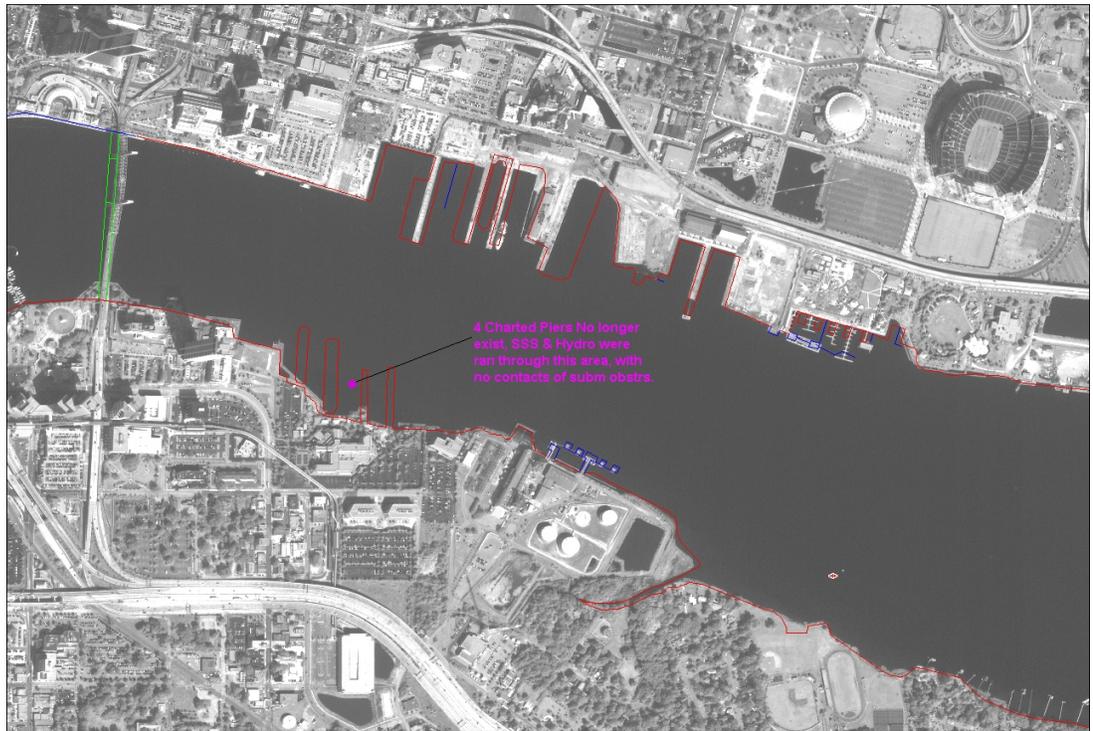
1. A 50 foot report at 30°19'19.4"N, 081°38'55.6"W, now shows soundings in the ~~±2 7~~ to ~~25~~ **50** foot range. This report should be removed and replaced by current survey soundings. **concur**
2. A 44 foot report at 30°19'15.1"N, 081°38'41.3"W, now shows soundings in the ~~±2 3~~ to ~~±2~~ **33** foot range. This report should be removed and replaced by current survey soundings. **concur**
3. A 19 foot 1990 report ~~1990~~ at 30°19'22.2"N, 081°37'34.8"W, is now an active floating drydock with depths observed in the 25 foot range. This report should be removed and replaced by current survey soundings. **Do not concur. See Section D.1.1. of the Evaluation Report.**
4. The 18 foot contour at 30°19'01.0" N, 081°37'47.9"W, has receded 190 meters towards shore at 318 degrees. A tug and barge company in this vicinity has requested an update to the chart in this region for current soundings. **Concur. It is recommended that present survey soundings supersede the charted soundings in this area.**
5. The blue charted region at 30°18'56.5"N, 081°37'46.6"W, near F&E R "80 was found to have ~~±7 19~~ foot depths in the vicinity as charted. **Concur. . It is recommended that present survey soundings supersede the charted soundings in this area.**
6. The controlling depth access at the entrance to the Arlington River is now ~~one foot~~ **two feet** or less in the common area. **Concur. It is recommended that present survey soundings supersede the charted soundings in this area.**
7. An 8 foot sounding exists at 30°19'32.5"N, 081°37'06.3"W, this area was identified during 200% side scan sonar and should be charted as a eight foot obstruction. The charted surrounding soundings are ~~±0 21~~ to ~~±2 25~~ feet. The hydrographer recommends charting a bulls eye sounding at this location. **concur with clarification. See Section D.1.2. of the Evaluation Report.**
8. There are 27 foot soundings in Terminal Channel near 30°20'17.3"N, 081°37' 19.3"W, the chart tabulation for this region according to the USACOE is 26.1 left outside quarter, 30.2 left inside quarter, 31.5 right inside quarter, 28.1 on the right outside quarter and a controlling project depth of 34-38 feet. **Do not concur. See Section D.1.6. of the Evaluation Report.**

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

9. A charted dol at ~~30°20'13.1"N, 081°37'55.7"W~~, does not exist. ***Reject bad G.P. Verbal confirmation with the field determined the above mentioned G.P. as a typographic error. The dol is charted in Latitude 30°19'16.2" N, Longitude 081°39'30.5" W. Remove from chart.***
10. A charted dol at 30°19'14.2"N, 081°39'25.5"W, does not exist. ***concur. Remove from chart.***
11. A charted subm. pile at 30°19'11.5"N, 081°39'18.3"W, exist as charted. ***concur***
12. A charted dol at 30°19'11.4"N, 081°39'15.3"W, does not exist. ***concur Remove from chart***
13. A charted visible wreck at 30°18'46.1"N, 081°38'23.6"W, exists as charted. ***concur***
14. A charted subm. pile at 30°19'09.5"N, 081°38'24.2"W, does not exist. ***concur Remove from chart***
15. A charted subm. pile ~~pile~~ ***piles*** at 30°19'08.1"N, 081°38'21.4"W, does not exist. ***concur Remove from chart***
16. A charted dol at 30°19'09.6"N, 081°38'21.0"W, does not exist. ***concur Remove from chart***
17. A charted subm. ruins at 30°19'07.5"N, 081°38'15.4"W, does not exist. ***concur Remove from chart***
18. A charted subm. pile at 30°18'37.9"N, 081°37'50.9"W, does not exist. ***concur Remove from chart***
19. A charted subm. pile at 30°18'37.6"N, 081°37'48.6"W, does not exist. ***concur Remove from chart***
20. A charted visible pile at 30°18'44.0"N, 081°37'44.3"W, does not exist. ***concur Remove from chart***
21. A charted visible. pile at 30°18'43.1"N, 081°37'42.4"W, does not exist. ***concur Remove from chart***
22. A charted subm. piles PA at 30°18'44.5"N, 081°37'34.1"W, does not exist. ***concur Remove from chart***
23. The two charted foul areas at 30°18'36.7"N, 081°37'49.5"W, and
24. 30°18'42.2"N, 081°37'45.5"W, exist as charted. ***concur***

25. A charted obstruction at 30°18'49.6"N, 081°37'20.0"W, exist as charted. *concur*
26. Two charted visible wrecks behind a foul limit at 30°19'34.4"N, 081°37'36.1"W do not exist. A catwalk now exists at this vicinity making this cove inaccessible. *concur. Remove charted wrecks in Latitude 30°19'32.20"N, Longitude 081°37'36.63"W and Latitude 30°19'36.19"N, Longitude 081°37'34.44"W from the chart.*
27. A charted visible wreck at 30°19'27.8"N, 081°36'56.9"W, does not exist. *concur Remove from chart*
28. Two charted stakes at 30°19'36.0"N, 081°36'41.2"W, do not exist. *concur. Remove from chart*
29. A charted pile at 30°19'55.4"N, 081°36'44.4"W, exist as charted. *concur*
30. A charted dol at 30°19'58.1"N, 081°36'47.4"W, does not exist. *concur. Remove from chart*
31. The charted dols centered at 30°20'02.9"N, 081°36'46.5"W, exist as charted. *concur.*
32. A charted subm wreck at 30°20'06.6"N, 081°36'43.7"W, exist as charted. *concur*
33. A charted lighted barge at 30°20'01.0"N, 081°36'54.0"W, exist as charted. *concur*
34. Two charted dols on the offshore end of a pier centered at 30°19'42.7"N, 081°37'33.2"W, exist as charted. *concur. Revise note to Dols.*
35. Two charted visible piles at 30°19'46.8"N, 081°37'38.5"W, exist as charted. *concur*
36. A charted visible pile at 30°19'49.5"N, 081°37'38.9"W, exist as charted. *concur Revise note from Piles to Pile*
37. A charted visible wreck at 30°19'50.8"N, 081°37'38.1"W, exist as charted. *concur*
38. A charted visible wreck at 30°19'56.1"N, 081°37'36.1"W, exist as charted. *concur*
39. There are four charted dols PA centered at 30°20'03.2"N, 081°37'34.6"W, that do not exist and are presently covered by moored barges. *concur. Remove from chart*
40. A charted visible pile at 30°20'20.8"N, 081°37'30.6"W, exist as charted. *concur*
41. A charted visible wreck at 30°20'25.6"N, 081°37'26.0"W, does not exist. *concur Remove from chart*

42. A charted ruins centered at 30°20'36.3"N, 081°37'20.5"W, exist as charted. *concur*
43. Two charted visible piles centered at 30°20'34.0"N, 081°36'40.8"W, exist as charted. *concur*
44. Three charted dols centered at 30°20'49.2"N, 081°36'40.0"W, exist as charted. *concur*  
*Revise note to Dols*
45. Two charted dols PA centered at 30°21'32.1"N, 081°36'46.4"W, exist as charted. *concur. Revise note to Dols*
46. A charted submerged wreck at 30°21'37.2"N, 081°36'46.9"W, does not exist. *concur.*  
*Remove from chart*
47. A charted visible pile at 30°21'38.1"N, 081°36'46.1"W, exists as charted. *concur*  
*Revise note to Pile*
48. A charted dol at 30°21'28.3"N, 081°37'09.6"W, exist as charted. *concur*
49. A charted dol at 30°21'30.6"N, 081°37'09.4"W, exist as charted. *concur*
50. A charted dol at 30°21'34.8"N, 081°37'09.2"W, exist as charted. *concur*
51. A charted dol at 30°21'36.6"N, 081°37'09.4"W, exist as charted. *concur*
52. A charted dol at 30°21'41.0"N, 081°37'11.0"W, exist as charted. *concur*
53. A charted dol at 30°21'40.92"N, 081°37'10.9"W, exist as charted. *concur*
54. A charted dol at 30°21'41.7"N, 081°37'12.1"W, exist as charted. *concur*
55. A charted ruins at 30°21'43.9"N, 081°37'17.0"W, exist as charted. *concur*
56. Four charted piers centered at 30°19'07.0"N, 081°39'10.2"W, do not exist. SSS and single beam data acquired showed no remnants or subm obstrs remaining. The Ikonis imagery should supersede charted shoreline for corrections. See Photo Below  
*Concur. The Ikonis imagery has already been applied to the shoreline on the latest edition of the chart. No additional changes in charting are required.*



## **AWOIS Item Investigations**

There are eight AWOIS items within the survey limits. All eight items were completed. These item investigations are summarized in the following pages. The AWOIS MDB file is also included under the Supplemental records section in the Appendices.

### **AWOIS: 11214**

**Item Description:** Sounding *28ft*

**Source:** BP101421/75-COE

**Item Position:** Lat. 30° 19' 14.61" N, Long. 081° 39' 04.55" W

**Required Investigation:** S2, ES                      **Status:** Completed

**Charts Affected:** 11491                              **Radius:** 100m

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## **INVESTIGATION**

**Contact No:** N/A

**Date(s):** 2/12/02 (043)

**Least Depth Position Number:** N/A

**Investigation Used:** 200% SSS, ES

**Surveyed Position:** Same as charted

**Position Determined By:** Differential GPS

**Investigation Summary:** 200% SSS and single beam echo sounder were acquired over the entire 100m radius. No 28 foot soundings were identified within the AWOIS radius. Depths in the area were found to be significantly greater than the reported 28 foot charted sounding.

---

## **CHARTING RECOMMENDATION**

**Recommendations:** The hydrographer recommends charting the current survey soundings from H-11089 in this area and removing the currently charted 28 foot sounding. *concur*

**AWOIS: 11215**

**Item Description:** Obstruction

**Source:** CL1795/75-USPS

**Item Position:** Lat. 30° 18' 58.04" N, Long. 081° 38' 39.46" W

**Required Investigation:** VS,S2,ES,SD      **Status:** Completed

**Charts Affected:** 11491      **Radius:** 100m

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**INVESTIGATION**

**Contact No:** N/A

**Date(s):** 4/30/02 (120)

**Least Depth Position Number:** N/A

**Investigation Used:** 200% SSS, ES

**Surveyed Position:** Same as charted

**Position Determined By:** DGPS

**Investigation Summary:** The SSS coverage showed a contact at the reported site, further investigation development with echo sounder acquired a sounding on the submerged pile.

---

**CHARTING RECOMMENDATION**

**Recommendations:** The hydrographer recommends revise the pile symbol to submerged at the charted location. The two charted piles west of this position are visible and should remain as charted. *concur ,Chart 24 ft Obstn w/ danger curve*

## AWOIS: 11216

**Item Description:** Wreck (Unknown)

**Source:** CL888/77-USPS

**Item Position:** Lat. 30° 18' 52.40" N, Long.081° 38' 27.38" W

**Required Investigation:** S2,VS,SD,ES      **Status:** Completed

**Charts Affected:** 11491      **Radius:** 100m

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### INVESTIGATION

**Contact No:**155\_2010\_1

**Date(s):** 2/08/02 (039) & 4/30/02 (120)

**Least Depth Position Number:** N/A

**Investigation Used:** 200% SSS, ES

**Surveyed Position:** Latitude 30° 18' 52.93" N, Longitude 081° 38' 26.26" W

**Position Determined By:** Differential GPS

**Investigation Summary:** There are two charted Dols and one charted submerged wreck in this area. One concrete dol exists at the surveyed position acquired on DN 120. The **eastern southeastern** dol is submerged, a **3 7** foot sounding was acquired on this feature.

---

### CHARTING RECOMMENDATION

**Recommendations:** The hydrographer recommends charting the concrete dol at the above survey position and the removal of the eastern dol and charting the **3 7** foot sounding at lat. 30° 18' 52.67" Lon. 081° 38' 25.86" from H-11089 with smooth tides. The submerged wreck symbol should be removed from the chart as there is no evidence of it's existence on the side scan record. **concur , Revise charted Dols note to Dol, add a 7 ft obstruction and danger curve in the present survey location, delete the SE dolphin symbol, and delete the charted dangerous sunken wreck PA.**

**AWOIS: 11217**

**Item Description:** Wreck (Unknown)

**Source:** CL888/77-USPS

**Item Position:** Lat. 30° 18' 48.45" N, Long.081° 38' 25.05" W

**Required Investigation:** VS,ES,S2,SD      **Status:** Completed

**Charts Affected:** 11491      **Radius:** 50m

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**INVESTIGATION**

**Contact :** N/A

**Date(s):** 2/06/02 (037)

**Least Depth Position Number:** N/A

**Investigation Used:** VS

**Surveyed Position:** Same as charted.

**Position Determined By:** Differential GPS

**Investigation Summary:** A visual identification was made during mainscheme hydrography.

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**CHARTING RECOMMENDATION**

**Recommendations:** The hydrographer recommends retain submerged *sunken* wreck symbol as charted. *concur*

**AWOIS: 11218**

**Item Description:** Wreck (Unknown) & Dols

**Source:** CL1795/75-USPS

**Item Position:** Lat. 30° 19' 05.90" N, Long.081° 38' 00.90" W

**Required Investigation:** VS,S2,ES,SD      **Status:** Completed

**Charts Affected:** 11491      **Radius:** 50m

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**INVESTIGATION**

**Contact No:** N/A

**Date(s):** 2/08/02 (039) & 4/30/02 (120)

**Least Depth Position Number:**N/A

**Investigation Used:** ES

**Surveyed Position:** none

**Position Determined By:** Differential GPS

**Investigation Summary:** An echo sounder investigation was conducted in this region. The results were negative.

---

**CHARTING RECOMMENDATION**

**Recommendations:** The hydrographer recommends the removal of dol and submerged wreck symbols from the chart. *Do not concur, retain dol and revise note to subm dol, retain wreck as charted.*

**AWOIS: 11219**

**Item Description:** Wreck (Unknown)

**Source:** H8463/59 & CL888/77-USPS

**Item Position:** Lat. 30° 18' 40.64" N, Long.081° 37' 48.10" W

**Required Investigation:** VS,ES,SD                      **Status:** Completed

**Charts Affected:** 11491                                      Radius: 30m

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**INVESTIGATION**

**Contact No:** N/A

**Date(s):** 2/08/02 (039) & 4/30/02 (120)

**Least Depth Position Number:** N/A

**Investigation Used:** 200% SSS

**Surveyed Position:** none

**Position Determined By:** Differential GPS

**Investigation Summary:** A visual investigation at low tide showed no signs of a wreck associated with this charted feature.

---

**CHARTING RECOMMENDATION**

**Recommendations:** The hydrographer recommends removal of the submerged *sunken* wreck symbol from the chart. *concur*

**AWOIS: 11221**

**Item Description:** Wrecks **"PA"** (Unknown)

**Source:** CL888/77-USPS & H8463/59

**Item Position:** Lat. 30° 20' 27.90" N, Long.081° 37' 22.60" W

**Required Investigation:** S2,ES,VS,SD      **Status:** Completed

**Charts Affected:** 11491      Radius: 100m

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**INVESTIGATION**

**Contact No:**N/A

**Date(s):** 3/12/02 (071)

**Least Depth Position Number:** N/A

**Investigation Used:** 200% SSS

**Surveyed Position:** none

**Position Determined By:** Differential GPS

**Investigation Summary:** 200% side scan coverage showed no contacts associated with this charted feature. The results of this investigation were negative.

---

**CHARTING RECOMMENDATION**

**Recommendations:** The hydrographer recommends removal of the submerged *sunken* wreck symbol from the chart. *concur, remove dang sunken wreck PA symbol and note from chart.*

**AWOIS: 11222**

**Item Description:** Obstruction

**Source:** H8463/59

**Item Position:** Lat. 30° 21' 47.17" N, Long.081° 36' 51.32" W

**Required Investigation:** VS,S2,ES,SD      **Status:** Completed

**Charts Affected:** 11491      **Radius:** 30m

---

**INVESTIGATION**

**Contact No:**N/A

**Date(s):** 4/30/02 (120)

**Least Depth Position Number:** N/A

**Investigation Used:** VS

**Surveyed Position:** Same as charted

**Position Determined By:** Differential GPS

**Investigation Summary:** A visual investigation revealed 10 charted dols at this location.

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**CHARTING RECOMMENDATION**

**Recommendations:** The hydrographer recommends to retain dol and pile symbols as these features exist as charted. *concur*

## **Dangers to Navigation**

There was one Danger to Navigation submitted for H-11089. An ~~8~~ **12** foot sounding near Exchange Island at lat. 30°19'32.536"N, lon.081°37'06.314"W . *concur. See Section D.1.2 of the Evaluation Report.*

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

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

All Navigation Aids serve their intended purpose. The fixed range ~~towers were~~ *tower was* positioned by the DGPS antenna being placed directly on the light to ensure the highest order of accuracy. The ELRIC ftp site will be posted with all range tower USCG Light positions collected during OPR-G443.

All floating aids were positioned by the survey vessel and are on station.  
*Concur. There were six floating aids to navigation located on this survey.*

There are two charted bridge lights in error at 30°19'01.6"N, 081°37'43.1"W, these lights are incorrectly charted. These lights are the only two bridge lights currently charted. Detached positions were taken during the course of H-11089 on all bridge fender lights and these positions should be charted to adequately show the bridge fender locations. *See Section D.2.1.b. of the Evaluation Report*

There are three bridges located within the survey limits. The status of horizontal and vertical clearances were investigated and are in good agreement with all charted notes. *concur*

### **Ferry Routes**

There are no ferry routes or ferry terminals located within the survey limits. *concur*

### **Submarine Cables and Pipelines**

There are three submerged cables within the confines of H-11089 and two anchorage areas.  
*concur*

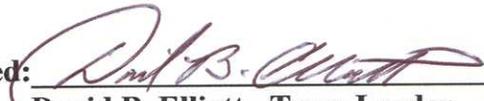
**E. APPROVAL SHEET**

**OPR-G443-NRB  
St. Johns River  
Jacksonville, FL  
Survey Registry No. H11089**

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**



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

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE: October 16, 2002

HYDROGRAPHIC BRANCH: Atlantic  
HYDROGRAPHIC PROJECT: OPR-G443-NRT-2002  
HYDROGRAPHIC SHEET: H11089

LOCALITY: St. John's River, FL  
TIME PERIOD: February 6 - April 30, 2002

TIDE STATION USED: 872-0226 Main Street Bridge, FL  
Lat. 30° 19.2'N Lon. 81° 39.5'W  
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters  
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 0.575 meters

TIDE STATION USED: 872-0242 Longbranch, FL  
Lat. 30° 21.6'N Lon. 81° 37.2'W  
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters  
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 0.788 meters

REMARKS: RECOMMENDED ZONING  
Use zone(s) identified as: SJR23, SJR24, SJR25, SJR26, SJR27,  
SJR28, SJR29 & SJR30

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.

  
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CHIEF, REQUIREMENTS AND DEVELOPMENT DIVISION



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**ATLANTIC HYDROGRAPHIC BRANCH  
EVALUATION REPORT FOR H11089 (2002)**

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. AUTOMATED DATA ACQUISITION AND PROCESSING**

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

Hydrographic Processing System  
NADCON, version 2.10  
MicroStationJ 01, version 7.1  
I/RAS B, version 5.01  
Caris HIPS/SIPS8  
PYDRO, Release 2.5.3

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

**B.2. JUNCTIONS**

H11090 (2001) 1:10,000 to the north

A standard junction was effected between the present survey and survey H11090 (2001).

**C. CONTROL STATIONS**

Horizontal control used for this survey during data acquisition is based upon the North American Datum of 1983 (NAD 83). Office processing of this survey is based on these values.

**D.1. COMPARISON WITH CHART 11491 (34<sup>th</sup> Edition, Oct /03)  
11492 (18<sup>th</sup> Edition, Oct 24/98)**

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

1. Item number D.1.3. of the Descriptive Report states that the "19 FT 1990" note in 30°19'22.2"N, 081°37'34.8"W, is now an active floating drydock with depths observed in the 25 foot range. The most recent edition of chart 11491 shows the notation updated to 19 FT 2002. Clarification was made from a phone conversation with N/CS26 Nautical Data Branch as

follows: The source for the 19 FT 2002 note is a Corps of Engineers (COE) survey, conducted 2/03, which found 19ft soundings in that area. This survey was conducted subsequent to the present survey, therefore, no changes in charting are recommended unless other information indicates otherwise.

2. Item number D.1.7. of the Descriptive Report states that an uncharted 8 ft dangerous obstruction was found by the present survey in Latitude 30°19'32.5"N, Longitude 81°37'06.3"W. This item was submitted as a Danger to Navigation and is charted on the latest edition of the chart. During office processing of the survey it was determined that the obstruction actually has a least depth of 12 feet in Latitude 30°19'32.49"N, Longitude 81°37'06.76"W. It is recommended that the charted 8 ft obstruction with danger curve be deleted and a 12 ft obstruction with danger curve be charted in the present survey location.

3. The charted visible ruins in latitude 30°19'09.5" N, longitude 081°36'15.5" W, originate with an unknown source and were neither verified nor disproved by the present survey. It is recommended that no changes in charting be made.

4. Comparisons were made between H11089 and charts 11491 and 11492. In general, agreement between charted soundings and surveyed soundings was adequate, with most charted depths agreeing with survey soundings to within 3 feet. Numerous soundings fall outside these limits. It is recommended that present survey soundings supercede all charted data except where noted otherwise.

5. The following charted soundings and features were neither verified nor disproved by the present survey. It is recommended that they be retained as charted.

Features/Depths	Latitude	Longitude
8	30°18'53.7"N	081°38'33.5"W
10	30°18'52.3"N	081°38'31.2"W
9	30°19'06.3"N	081°38'02.4"W
16	30°19'05.4"N	081°37'53.9"W
6	30°19'06.4"N	081°37'44.8"W

2	30°19'35.2"N	081°37'01.0"W
1/2	30°19'00.76"N	081°37'06.27"W
1/2	30°18'46.53"N	081°37'27.51"W
1	30°19'31.8"N	081°36'43.7"W
2	30°19'24.55"N	081°39'05.17"W
UNKNOWN OBSTR	30°19'10.8"N	081°39'16.4"W
Do1	30°19'04.59"N	081°38'55.36"W
Do1	30°19'03.07"N	081°38'51.94"W
Do1	30°19'02.88"N	081°38'51.43"W
3	30°18'59.3"N	081°36'22.2"W

6. Item number D.1.8. of the Descriptive Report states that the present survey depths in Terminal Channel, in the vicinity of latitude 30°20'24.6"N, longitude 081°37'17.6"W, were shoaler than the depths in the charted tabulations. These tabulations have been updated on the latest edition of the chart to reflect data from 2003 surveys conducted by the Army Corps of Engineers (ACOE). The ACOE data is subsequent to present survey data and indicates that dredging has taken place within the confines of Terminal Channel. It is recommended that the controlling depths be retained as charted.

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

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

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

The hydrographer located six (6) floating aids to navigation and one (1) non-floating aid. These aids appear adequate to serve their intended purpose. Attention is directed to the following:

a. The following aids to navigation are in the Light List, but were not verified by the hydrographer. No changes in charting are recommended at this time.

Description	Latitude	Longitude	LL#
Pier 6 light	30°19'12.0"N	081°38'42.0"W	7655
Pier 1 W Lt	30°19'18.0"N	081°39'05.0"W	7660
Range FT Lt	30°21'42.0"N	081°36'48.0"W	7610
Range R Lt	30°21'40.0"N	081°36'46.0"W	7615

b. The present survey found that the two bridge lights in the vicinity of Latitude 30°19'01.6"N, Longitude 081°37'43.1"W are incorrectly charted. The present survey acquired positions on three bridge fender lights:

Latitude	Longitude
30°18'59.97"N	081°37'42.74"W
30°19'01.82"N	081°37'41.53"W
30°19'01.14"N	081°37'40.89"W

It is recommended that any changes to these Aids be deferred to MCD Update Service Branch.

In addition to the above, there were ten (10) bridge fender lights and six (6) amber mooring fender lights located on this survey. It is recommended that they be retained as charted.

## **2. CONTROLLING DEPTHS**

See Section D.1.6. of this report.

## **3. COMPARISON WITH PRIOR SURVEYS**

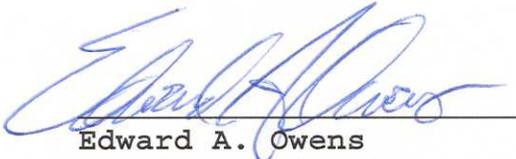
A comparison with prior surveys was not done during office processing in accordance with section 4. of the memorandum titled, "Changes to Hydrographic Survey Processing," dated May 24, 1995.

## **4. MISCELLANEOUS**

Chart compilation was done by Atlantic Hydrographic Branch personnel, in Norfolk, Virginia. Compilation data will be forwarded to the Marine Chart Division, Silver Spring, Maryland. The following National Ocean Survey chart was

compiled using the present survey:

**11491 (34<sup>th</sup> Edition, Oct /03)**



**Edward A. Owens**  
Physical Scientist  
Verification of Field Data  
Evaluation and Analysis

APPROVAL SHEET  
H11089

The completed survey has been inspected with regard to survey coverage, delineation of depth curves, development of critical depths, cartographic symbolization, and verification or disapproval of charted data. All revisions and additions made to the 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.



Date: October 18, 2004

Edward A. Owens  
Physical Scientist  
Atlantic Hydrographic Branch

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:



Date: Oct 21, 2004

P. Tod Schattgen  
Lieutenant Commander, NOAA  
Chief, Atlantic Hydrographic Branch

