

H11216

NOAA FORM 76-35A

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

DESCRIPTIVE REPORT

Type of Survey **Hydrographic **
Side Scan Sonar

Registry No. **H11216**

LOCALITY

State/Territory Florida

General Locality St. Johns River

Sub-locality Plummers Cove to Old Bull Bay

2003

CHIEF OF PARTY
David B. Elliott -Team Leader

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DATE

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

HYDROGRAPHIC TITLE SHEET

REGISTRY NUMBER:

H11216

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: **Plummers Cove to Old Bull Bay**

Scale: **1:10,000** Date of Survey: Oct.27, 2003 to Dec ~~8~~ **4**,2003

Instructions Dated: **05 May 2003** Project Number: **OPR-G443-NRB *T2***

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 2500 CP (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 H-11216

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.

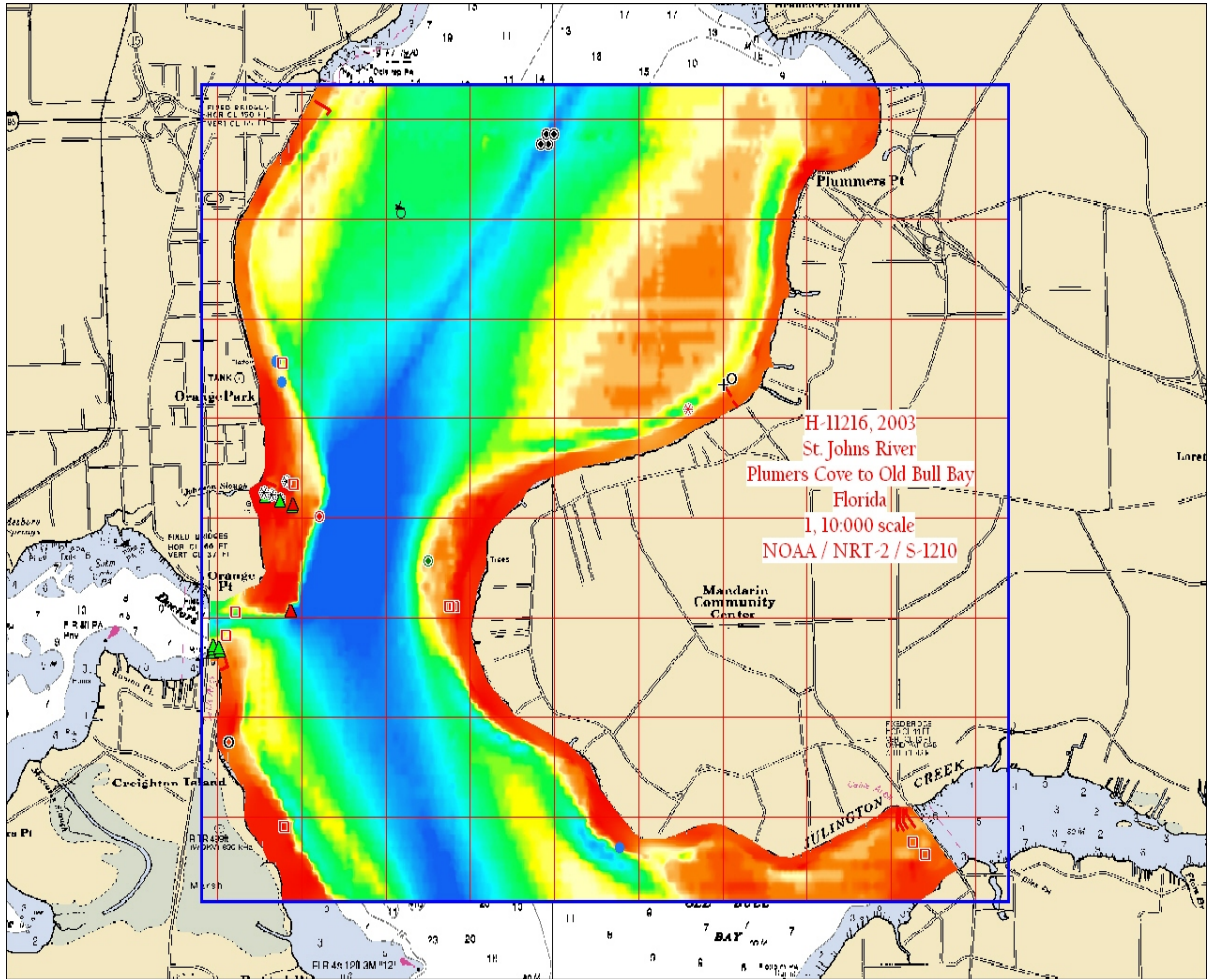
.

Survey Limits for Sheet "C" H-11216 are as follows:

30° 11' 41" N
081° 42' 04" W
30° 07' 34" N
081° 37' 19" W

Survey Dates: Oct. 27, 2003 (DN: 300) to Dec. 4, 2003 (DN: 338)

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 filled at the Atlantic Hydrographic Branch.*

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.

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 H-11216 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 (1st 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 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 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 H-11215, 2003 north of H-11216. 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.

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 29, 2002. 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 predicted tides from the Internet NOAA Co-Ops site. The predictions 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 H-11216 are based on MLLW unless otherwise specified.

A Request for Approved Tides letter was sent to N/OPS1 on Dec. 8, 2003 (Appendix IV*). *Approved tides were re-applied to survey in Caris during office processing.*

Horizontal Control *See also the Evaluation Report.*

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.

** Data filed with Original Field Records.*

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 at Atlantic Hydrographic Branch.*

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

D.1. CHART COMPARISON

There is one chart affected by this survey:

11492, ~~17th~~ **19th** edition, Nov. 24, 2001 1:40,000

General Agreement with Charted soundings

In general survey soundings compared with the charted soundings within three to five feet. The smooth tides may resolve some of these soundings. Some regions of the chart had discrepancies of 10 feet or more. 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.

The following is a list of notable sounding discrepancies:

- 1.) The region at 30° 08' 59.28" N, 081° 40' 40.32" W has filled in by two to three feet. **Concur.**
- 2.) An isolated six foot shoal has developed at 30° 10' 37.20" N, 081° 39' 20.89" W. **Concur.**
A depth of 5 feet in Latitude 30° 10' 37.52" N, Longitude 81° 39' 24.06" W was determined by present survey.
- 3.) A six foot contour has migrated seaward at 30° 09' 17.34" N, 081° 40' 40.28" W. **Concur.**
- 4.) An isolated 12 foot shoal at 30° 09' 13.49" N, 081° 41' 08.67" W no longer exists. **Concur.**
Disproved by 200% Side Scan Sonar Investigation.
- 5.) There was major shoaling noted at 30° ~~37~~ **07** 39.31" N, 081° 38' 52.83" W, in Old Bull Bay by three and four foot. **Concur.**

The following is a list of Charted items that were investigated or disproved by 200% side scan sonar:

- 1.) AWOIS 11772 wreck, 30°11' 21.86" N, 081° 39'32.33" W does not exist and should be removed from the chart. *Do not concur. See section D. of Evaluation Report.*
- 2.) AWOIS 11773 wreck, this wreck was located 160 meters 060°(ENE) from it's charted position. The corrected wreck position is 30° 11' 02.579" N, 081° 40' 54.728" W. The old wreck symbol should be removed and a submerged Wreck symbol should be charted at the survey position. The wreck lies on a NNW to SSE axis. The least depth by echo sounder was 2.43 meters, (8.0 ft). *Concur with clarification. Delete charted Wreck, PA
Chart 8Wk with danger curve.*
- 3.) An obstruction at 30° 10' 16.79" N, 081° 41' 38.78" W, exists as charted. The obstruction is a pipe laying flat on the bottom of the river floor approximately 8 meters long. The height off bottom of this feature was 0.33meters, (1.08ft). *Concur with clarification. It is recommend that a obstruction with a depth of 5ft (5 Obstn) be charted in Latitude 30° 10' 16.79" N, Longitude 81° 41' 38.78" W. Chart 5 Obstn with danger curve*
- 4.) A charted pile at 30° 10' 09.84" N, 081° 41' 38.24" W, does not exist and should be removed from the chart. An insignificant submerged pile lying flat on the river floor was noted but is not deemed worthy of charting. The height off bottom of this feature was 0.03 meters, (0.09ft). *Concur. Delete charted pile.*
- 5.) A charted piling PA at 30° 07' 50.67" N, 081° 39' 36.51" W, was found to be submerged. The chart should be revised at this position to show submerged pile. The height off bottom of this feature was 0.4 meters, (1.3 ft). *Concur.
Revise Piling, PA to Subm Pile in charted location.*

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

There were no sounding notations within the confines of H-11216.

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

- 1.) A stump at 30° 07' 55.29" N, 081° 38' 05.17" W, does not exist and should be removed from the chart. *Concur. Delete Stump REP, PA.*
- 2.) A fish weir at 30° 09' 09.53" N, 081° 40' 38.85" W, does not exist and should be removed from the chart. *Concur. Delete Fish Weir.*

- 3.) A visible wreck **PA** at 30° 09' 31.38"N, 081° 40' 29.08" W, does not exist and should be removed from the chart. The fish weir at this location does not exist and should likewise be removed from the chart. *** Concur with clarification. Delete visible wreck, PA. *Inadequate investigation in area of Fish Weir. Retain as charted.**
- 4.) The ruins at 30° 11' 23.00" N, 081° 38' 23" W, exist as charted. **Concur.**

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

- 1.) There are nine charted "Platform" notations on the chart, two on the western shore and seven on the eastern shore. All of these platform notes should be removed from the chart. These features are actually boat houses that have connections to piers. NRT2 did not position these features due to time constraints and in some cases shallow water depths. Satellite imagery should be acquired and registered to adequately portray these features properly. **Concur. See also section D. of the evaluation report.**
- 2.) An obstruction PA at 30° 08' 59.28"N, 081° 40' 40.45" W, exists as charted. **Do not concur. No obstruction shown on chart 11492, 19th edition, Nov. 24, 2001. No change in charting recommended.**
- 3.) The reference notations to "Trees" should be removed from the chart. There are numerous trees along the shore throughout the St. Johns River and these isolated notations are unnecessary and serve no purpose to mariners. ******
- 4.) A "foul area" at 30° 11' 27.56" N, 081° 41' 27.85" W, exists as charted. **Concur.**
- 5.) A sewer at 30° 10' 30.82" N, 081° 41' 40.16" W, exists as charted. **Concur.**

The following is a list of regions for shoreline changes. All of the areas were positioned by NRT2 with a DGPS backpack method as per ENC methods. The Supplemental Correspondence folder in Appendices V * contains images of these items. The features in this section in the form of shape files were likewise posted at the FTP site for MCD.

*** Data filed with field records.**

- 1.) The Mandarin Holiday Marina at 30° 07' 58.8" N, 081° 37' 54.7" W. This facility is currently charted as two finger piers where four piers are existing. Hydrography was collected between these piers. **Concur. ****
- 2.) The Whitney Marina at 30° 08' 49.5" N, 081° 42' 02.2" W, This facility has a floating offshore pier seaward of the currently charted pier. Hydrography was collected between the piers. **Concur. ****

****Defer to MCD Source Data Branch For Final Disposition.**

3.) The Villas Continental Yacht Club at 30° 09' 37.7"N, 081° 41' 40.2" W, this facility has changed in various locations with the extension of the currently charted configuration of the pier and an addition of a rock bulkhead on the south side. **Concur.**

4.) The Rudder Club at 30° 11' 32.7" N, 081° 41' 23.4" W, this facility has been lengthened to seaward by new construction. **Concur.**

Defer to MCD Sources Data Branch For Final Disposition.

AWOIS Item Investigations *See also Evaluation Report*

There were two AWOIS item within the survey limits. The features AWOIS # 11772 & 11773 were addressed during the survey and resolved. The results of these investigation can be found under the PSS directory. ***Do not concur. See section D of this report.***

Dangers to Navigation

There were nine DTONS within the confines of H-11216, 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. **Concur.**

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. There are several privately maintained aids at the entrances to marinas that should be charted or revised as this survey reflects in the form of detached positions. **Concur**
Defer to MCD Sources Data Branch For Final Disposition.

All floating aids were positioned by the survey vessel and are on station. **Concur.**

Ferry Routes

There are no Ferry routes within the confines of H-11216.

Submarine Cables and Pipelines

There are three cable crossing areas within the confines of H-11216. They are charted adequately.

Bridges *See also Evaluation Report.*

There are three bridges within the confines of H-11216. Vertical and horizontal bridge clearances were checked by NRT2 and are adequately charted.

The “Buckman” I-295 bridge is portrayed on the chart inadequately, currently it is charted as a single span. The current configuration is two spans. Satellite imagery should be registered to update this bridge feature. *Do not concur. Charted correctly on chart 11492, 19th edition, Nov. 24, 2001. No change in charting recommended.*

E. APPROVAL SHEET

**OPR-G443-NRB
St. Johns River
Jacksonville, FL
Survey Registry No. H-11216**

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: May 18, 2004

HYDROGRAPHIC BRANCH: Atlantic

HYDROGRAPHIC PROJECT: OPR-G443-NRT2-2003

HYDROGRAPHIC SHEET: H11216

LOCALITY: Plummers Cove to Old Bull Bay, St. John's River, FL

TIME PERIOD: October 27 - December 4, 2003

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: 0.577 meters

REMARKS: RECOMMENDED ZONING

Use zone(s) identified as: SJR36, SJR37, SJR 38, SJR39, SJR40, SJR42, SJR43 & SJR44.

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.

Fan -----
CHIEF, REQUIREMENTS AND DEVELOPMENT DIVISION



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Dangers To Navigation

Registry Number: H-11216
State: Florida
Locality: St. Johns River
Sub-locality: Plummers Cove to Old Bull Bay
Project Number: OPR-G443-NRT2
Survey Dates: 10/28/2003 - 11/13/2003

DTON's noted during survey H-11216, 2003. The following items were identified, and submitted for action.

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
--------------	--------------	-----------------	------------------	------------

Wreck	2.65 m	030° 11' 02.667" N	81° 40' 54.587" W	---
Marker (privately maintained)	-2.27 m	030° 08' 54.079" N	81° 41' 56.354" W	---
Marker (privately maintained)	-2.27 m	030° 09' 01.026" N	81° 41' 52.829" W	---
Pile	-1.27 m	030° 08' 22.788" N	81° 41' 56.102" W	---
Sounding	-1.26 m	030° 09' 37.774" N	81° 41' 42.917" W	---
Sounding	-1.25 m	030° 09' 36.866" N	81° 41' 40.301" W	---
Pile	-1.23 m	030° 10' 11.974" N	81° 38' 56.613" W	---
Sounding	0.12 m	030° 10' 02.821" N	81° 39' 11.799" W	---
Sounding	0.29 m	030° 10' 09.958" N	81° 38' 59.439" W	---

1 - Features from Bathymetry

1.1) 8267/1 (Awois 11773)**DANGER TO NAVIGATION****Survey Summary**

Survey Position: 030° 11' 02.667" N, 81° 40' 54.587" W
Least Depth: 2.65 m
Timestamp: 2003-301.17:08:12.270 (10/28/2003)
Survey Line: h-11216_c / 1210sb / 2003-301 / 159_1654
Profile/Beam: 8267/1
Charts Affected: 11492_1, 11451_17, 11006_1, 411_1

Remarks:

SSS contact of Awois 11773 charted Wrk PA was found to be located due NE of currently charted position. Singlebeam development was conducted over this area with this sounding being the least depth found.

Feature Correlation

Line	Feature	Range	Azimuth	Status
e:/hydrographic_survey_digital_filing_system/caris/hips/hdcs_data/h-11216_c/1210sb/2003-301/159_1654	8267/1	0.00	000.0	Primary

Hydrographer Recommendations

Remove currently charted Wrk PA, and chart subm Wrk at 30°11'02.667" , -081°40'54.587".

Cartographically-Rounded Depth (Affected Charts):

8ft (11492_1, 11451_17)

1 ½fm (11006_1, 411_1)

Feature Images

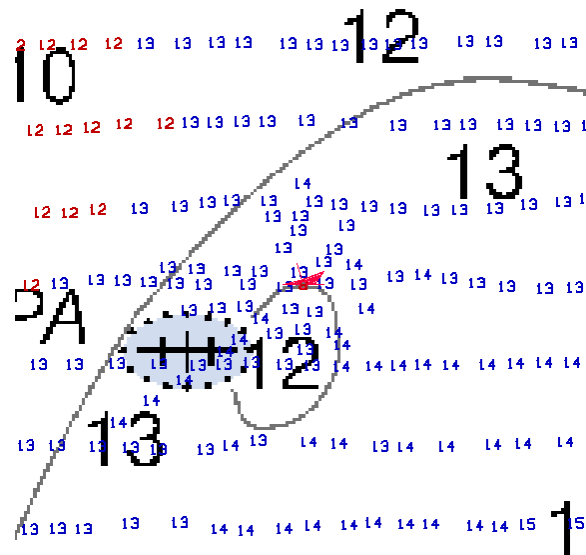


Figure 1.1.1

2 - Detached Positions (DPs)

2.1) manatee sign**DANGER TO NAVIGATION****Survey Summary**

Survey Position: 030° 08' 54.079" N, 81° 41' 56.354" W
Least Depth: -2.27 m
Timestamp: 2003-317.17:19:01.000 (11/13/2003)
DP Dataset: H-11216_C / 1210dp_Non_Echosounder / 2003-317 / H-11216_NavAids
Profile/Beam: 26/1
Charts Affected: 11492_1, 11451_17, 11006_1, 411_1

Remarks:

Add to Charts.

Feature Correlation

Line	Feature	Range	Azimuth	Status
E:/Hydrographic_Survey_Digital_Filing_System/Caris/Hips/HDCS_DATA/H-11216_C/1210dp_Non_Echosounder/2003-317/H-11216_NavAids	26/1	0.00	000.0	Primary

Hydrographer Recommendations

Add to Charts.

Cartographically-Rounded Depth (Affected Charts):

-8ft (11492_1, 11451_17)

-1 ¼fm (11006_1, 411_1)

Feature Images

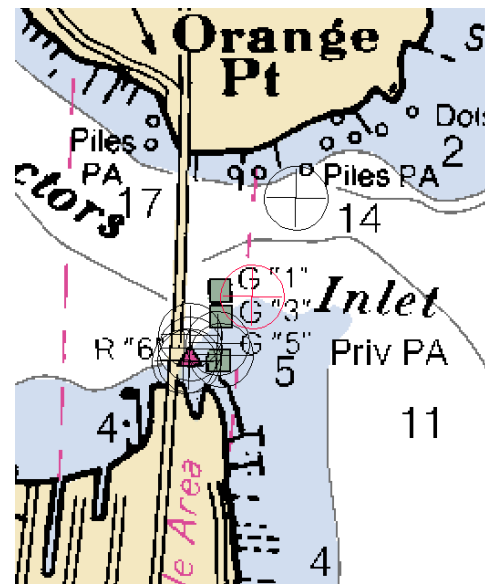


Figure 2.1.1

2.2) manatee sign

DANGER TO NAVIGATION

Survey Summary

Survey Position: 030° 09' 01.026" N, 81° 41' 52.829" W
Least Depth: -2.27 m
Timestamp: 2003-317.17:17:17.000 (11/13/2003)
DP Dataset: H-11216_C / 1210dp_Non_Echosounder / 2003-317 / H-11216_NavAids
Profile/Beam: 25/1
Charts Affected: 11492_1, 11451_17, 11006_1, 411_1
Remarks:
 Add to chart.

Feature Correlation

Line	Feature	Range	Azimuth	Status
E:/Hydrographic_Survey_Digital_Filing_System/Caris/Hips/HDCS_DATA/H-11216_C/1210dp_Non_Echosounder/2003-317/H-11216_NavAids	25/1	0.00	000.0	Primary

Hydrographer Recommendations

Add to chart.

Cartographically-Rounded Depth (Affected Charts):

-8ft (11492_1, 11451_17)

-1 ¼fm (11006_1, 411_1)

Feature Images

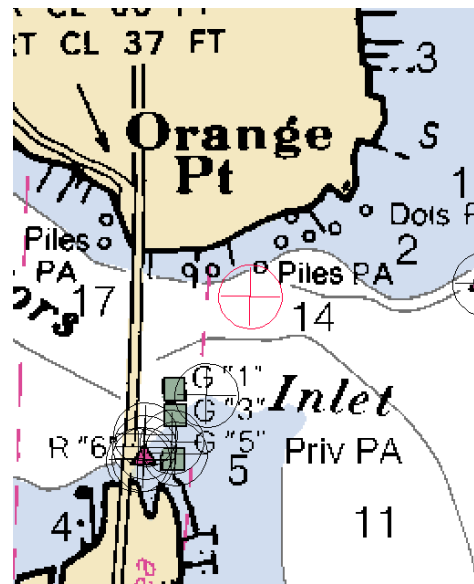


Figure 2.2.1

2.3) visible pile**DANGER TO NAVIGATION****Survey Summary**

Survey Position: 030° 08' 22.788" N, 81° 41' 56.102" W
Least Depth: -1.27 m
Timestamp: 2003-317.17:34:05.000 (11/13/2003)
DP Dataset: H-11216_C / 1210dp_Non_Echosounder / 2003-317 / H-11216_NavAids
Profile/Beam: 33/1
Charts Affected: 11492_1, 11451_17, 11006_1, 411_1

Remarks:

Located uncharted pile.

Feature Correlation

Line	Feature	Range	Azimuth	Status
E:/Hydrographic_Survey_Digital_Filing_System/Caris/Hips/HDCS_DATA/H-11216_C/1210dp_Non_Echosounder/2003-317/H-11216_NavAids	33/1	0.00	000.0	Primary

Hydrographer Recommendations

Chart pile at this GP.

Cartographically-Rounded Depth (Affected Charts):

-4ft (11492_1, 11451_17)

0 ¾fm (11006_1, 411_1)

Feature Images

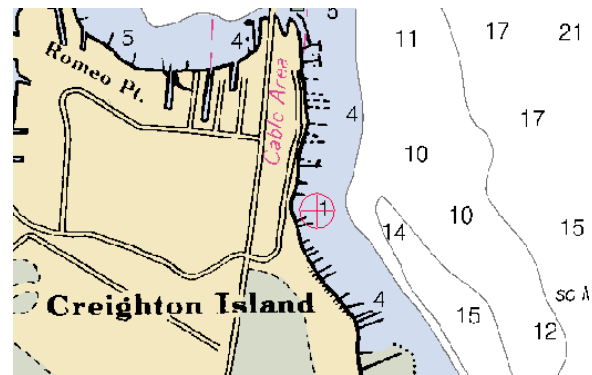


Figure 2.3.1

2.4) Western end of isolated rock breakwater

DANGER TO NAVIGATION

Survey Summary

Survey Position: 030° 09' 37.774" N, 81° 41' 42.917" W
Least Depth: -1.26 m
Timestamp: 2003-317.17:03:19.000 (11/13/2003)
DP Dataset: H-11216_C / 1210dp_Non_Echosounder / 2003-317 / H-11216_NavAids
Profile/Beam: 18/1
Charts Affected: 11492_1, 11451_17, 11006_1, 411_1

Remarks:

See previous Fx:3897.

Feature Correlation

Line	Feature	Range	Azimuth	Status
E:/Hydrographic_Survey_Digital_Filing_System/Caris/Hips/HDCS_DATA/H-11216_C/1210dp_Non_Echosounder/2003-317/H-11216_NavAids	18/1	0.00	000.0	Primary

Hydrographer Recommendations

See previous Fx:3897.

Cartographically-Rounded Depth (Affected Charts):

-4ft (11492_1, 11451_17)

0 ¾fm (11006_1, 411_1)

Feature Images

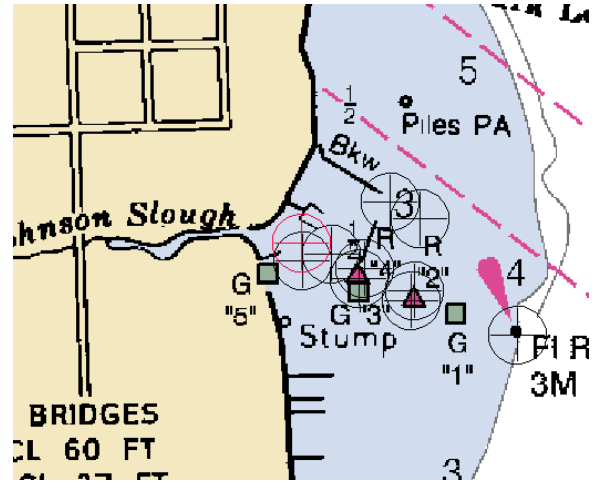


Figure 2.4.1



Figure 2.4.2

2.5) Eastern end of isolated rock breakwater

DANGER TO NAVIGATION

Survey Summary

Survey Position: 030° 09' 36.866" N, 81° 41' 40.301" W
Least Depth: -1.25 m
Timestamp: 2003-317.17:00:18.000 (11/13/2003)
DP Dataset: H-11216_C / 1210dp_Non_Echosounder / 2003-317 / H-11216_NavAids
Profile/Beam: 17/1
Charts Affected: 11492_1, 11451_17, 11006_1, 411_1

Remarks:

Offshoe isolated uncharted Bkw, Eastern end. Bkw is rock and approximatley 2.5m wide. Shape will connect Fx:3897 to 3898.

Feature Correlation

Line	Feature	Range	Azimuth	Status
E:/Hydrographic_Survey_Digital_Filing_System/Caris/Hips/HDCS_DATA/H-11216_C/1210dp_Non_Echosounder/2003-317/H-11216_NavAids	17/1	0.00	000.0	Primary

Hydrographer Recommendations

Add Bkw to the Charts.

Cartographically-Rounded Depth (Affected Charts):

-4ft (11492_1, 11451_17)

0 ½fm (11006_1, 411_1)

Feature Images

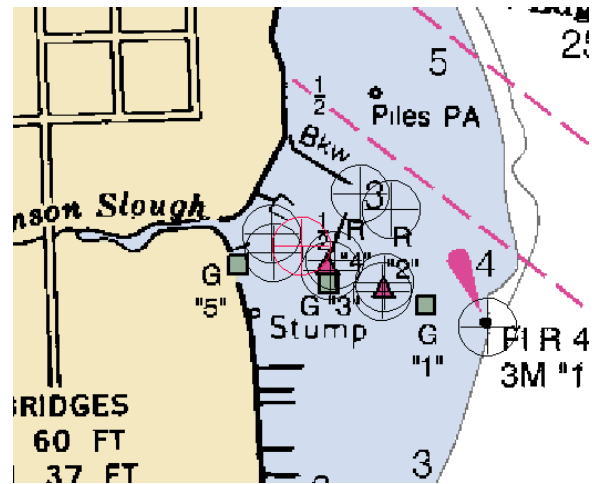


Figure 2.5.1



Figure 2.5.2

2.6) visible pile**DANGER TO NAVIGATION****Survey Summary**

Survey Position: 030° 10' 11.974" N, 81° 38' 56.613" W
Least Depth: -1.23 m
Timestamp: 2003-317.16:04:08.000 (11/13/2003)
DP Dataset: H-11216_C / 1210dp_Non_Echosounder / 2003-317 / H-11216_NavAids
Profile/Beam: 8/1
Charts Affected: 11492_1, 11488_1, 11480_1, 11451_17, 11006_1, 11009_1, 411_1
Remarks:
 Uncharted pile.

Feature Correlation

Line	Feature	Range	Azimuth	Status
E:/Hydrographic_Survey_Digital_Filing_System/Caris/Hips/HDCS_DATA/H-11216_C/1210dp_Non_Echosounder/2003-317/H-11216_NavAids	8/1	0.00	000.0	Primary

Hydrographer Recommendations

Chart pile at GP.

Cartographically-Rounded Depth (Affected Charts):

-4ft (11492_1, 11488_1, 11451_17)

0 ½fm (11480_1, 11006_1, 11009_1, 411_1)

Feature Images

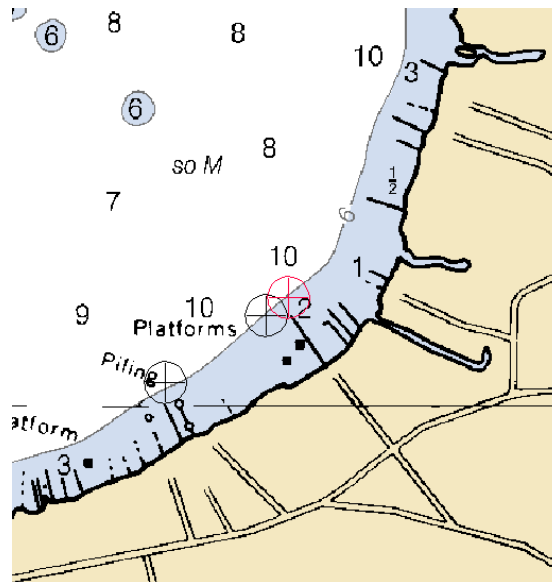


Figure 2.6.1



Figure 2.6.2

2.7) Subm. Obstruction between two piles

DANGER TO NAVIGATION

Survey Summary

Survey Position: 030° 10' 02.821" N, 81° 39' 11.799" W
Least Depth: 0.12 m
Timestamp: 2003-317.15:53:15.000 (11/13/2003)
DP Dataset: H-11216_C / 1210dp_Non_Echosounder / 2003-317 / H-11216_NavAids
Profile/Beam: 6/1
Charts Affected: 11492_1, 11488_1, 11480_1, 11451_17, 11006_1, 11009_1, 411_1

Remarks:

DP taken between the two piles. The Survey vessel grounded on an subm obstr lying between the uncharted piles. As the baring piles are uncharted, this survey position should cover to a radius of approximatley 10 meters.

Feature Correlation

Line	Feature	Range	Azimuth	Status
E:/Hydrographic_Survey_Digital_Filing_System/Caris/Hips/HDCS_DATA/H-11216_C/1210dp_Non_Echosounder/2003-317/H-11216_NavAids	6/1	0.00	000.0	Primary

Hydrographer Recommendations

Recommend charting two piles, parrallel to shore, 3 meters left and right of gp obtained.Recommend charting foul limits to 10 meter radius of 30°10'02.821"N , -081°39'11.799"W .

Cartographically-Rounded Depth (Affected Charts):

0ft (11492_1, 11488_1, 11451_17)

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

Feature Images

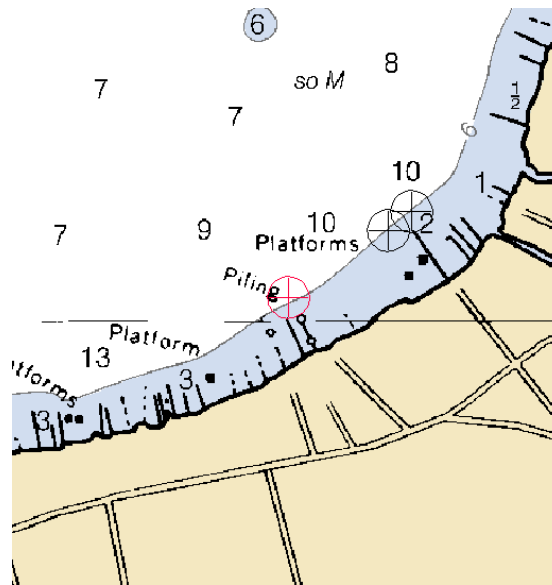


Figure 2.7.1



Figure 2.7.2

2.8) Offshore end of pier ruins, marked by two piles.

DANGER TO NAVIGATION

Survey Summary

Survey Position: 030° 10' 09.958" N, 81° 38' 59.439" W
Least Depth: 0.29 m
Timestamp: 2003-317.16:00:26.000 (11/13/2003)
DP Dataset: H-11216_C / 1210dp_Non_Echosounder / 2003-317 / H-11216_NavAids
Profile/Beam: 7/1
Charts Affected: 11492_1, 11488_1, 11480_1, 11451_17, 11006_1, 11009_1, 411_1

Remarks:

Located two uncharted piles at FX:3887. These piles mark the offshore end of subm ruins extending perpendicular from shore.

Feature Correlation

Line	Feature	Range	Azimuth	Status
E:/Hydrographic_Survey_Digital_Filing_System/Caris/Hips/HDCS_DATA/H-11216_C/1210dp_Non_Echosounder/2003-317/H-11216_NavAids	7/1	0.00	000.0	Primary

Hydrographer Recommendations

Chart pier ruins extending perpendicular from shore to this offshore position. Chart piles at this offshore position.

Cartographically-Rounded Depth (Affected Charts):

1ft (11492_1, 11488_1, 11451_17)

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

Feature Images

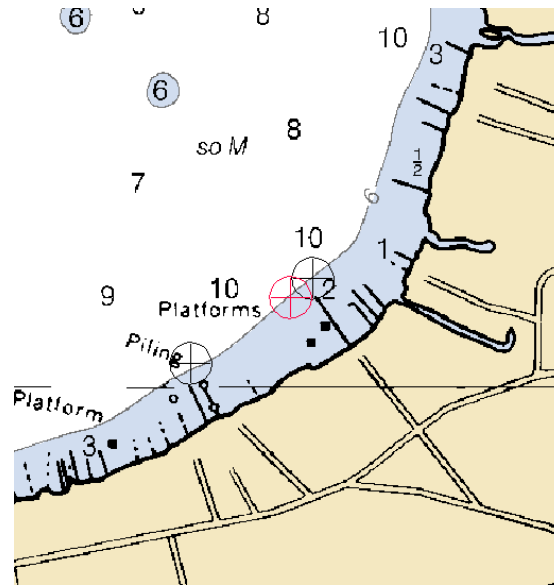


Figure 2.8.1



Figure 2.8.2

LETTER TRANSMITTING DATA

DATA AS LISTED BELOW WERE FORWARDED TO YOU
BY (Check)

- ORDINARY MAIL AIR MAIL
- REGISTERED MAIL EXPRESS
- GBL (Give number) _____

TO:

[CHIEF, DATA CONTROL GROUP, N/CS3x1]
 NOAA / NATIONAL OCEAN SERVICE
 STATION 6815, SSMC3
 1315 EAST-WEST HIGHWAY
 [SILVER SPRING, MARYLAND 20910-3282]

DATE FORWARDED 02/08/2005

NUMBER OF PACKAGES 1

NOTE: A separate transmittal letter is to be used for each type of data, as tidal data, seismology, geomagnetism, etc. State the number of packages and include an executed copy of the transmittal letter in each package. In addition the original and one copy of the letter should be sent under separate cover. The copy will be returned as a receipt. This form should not be used for correspondence or transmitting accounting documents.

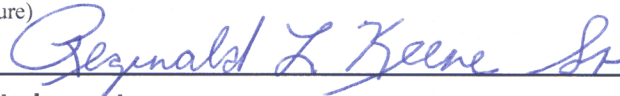
H11216

FLORIDA, St. JHONS RIVER, PLUMMERS COVE TO OLD BULL BAY

ONE TUBE CONTAINING THE FOLLOWING:

- 1 SMOOTH SHEET PLOTS
- 1 H-DRAWINGS ON MYLAR FOR CHART 11492

FROM: (Signature)



RECEIVED THE ABOVE
(Name, Division, Date)

Return receipted copy to:

[NOAA \ NATIONAL OCEAN SERVICE]
 ATLANTIC HYDROGRAPHIC BRANCH N/CS33
 439 WEST YORK STREET
 [NORFOLK, VA. 23510-1114]

**ATLANTIC HYDROGRAPHIC BRANCH
EVALUATION REPORT FOR H11216 (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.

JUNCTIONS

H11215 (2003) to the north
H11217 (2003) to the west
H11218 (2004) to the south

A Standard junction was effected between the present survey and surveys H11215 (2003), H11217 (2003), and H11218 (2004).

There are no junctional surveys to the east. Present survey depths are in harmony with the charted hydrography to the east.

C. 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. COMPARISON WITH Chart 11492 (19th Edition, Nov 24/01)

Hydrography

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

1) Automated Wreck And Obstruction Investigation System (AWOIS) item #11772, a charted dangerous sunken wreck PA, in Latitude 30°11'21.86"N, Longitude 81°39'32.33"W, was noted on side scan imagery during office processing. No bathymetry was obtained over the wreck. A sunken wreck is located in Latitude 30°11'21.98"N, Longitude 81°39'36.84"W. It is recommended that the feature be deleted from the chart. It is also recommended that a dangerous sunken wreck be charted as shown on the present survey.

2) The hydrographer located numerous Manatee Zone Signs in the following positions:

<u>Latitude (N)</u>	<u>Longitude (W)</u>
30°07'48.41"	81°37'47.14"
30°07'51.80"	81°37'51.41"
30°10'16.23"	81°41'36.11"
30°09'02.69"	81°40'35.11"
30°09'39.64"	81°41'32.32"
30°07'56.70"	81°41'35.54"
30°09'02.86"	81°40'36.66"

It is recommended that the above markers be charted in as shown on the present survey.

3) The hydrographer located a manatee sign with the notation "Slow Speed", (private marker) in Latitude 30°09'02.86", Longitude 81°40'36.66". It is recommended that a Sign be charted as shown on the present survey.

4) The hydrographer determined that nine platforms, within the survey limits, are boathouses connected to piers. There were no positions taken on these features. but they are currently charted at these locations:

<u>Latitude (N)</u>	<u>Longitude (W)</u>
30°10'18.02"	81°41'42.33"
30°10'40.05"	81°41'50.60"
30°09'49.58"	81°39'38.98"
30°09'49.50"	81°39'37.67"

30°09'53.97"	81°39'21.56"
30°10'05.03"	81°38'56.75"
30°10'06.68"	81°38'54.99"
30°10'46.15"	81°38'39.06"
30°11'10.50"	81°38'33.56"

It is recommended that the charted platforms be revised to boathouses. It is recommended that Source Data Unit personnel determine if there is shoreline data available to chart the piers that connect the boathouses to the shoreline.

5) The following charted features originate with unknown sources. They were neither investigated nor addressed by the hydrographer. No change in charting status is recommended.

<u>Feature</u>	<u>Latitude (N)</u>	<u>Longitude (W)</u>
Pile	30°11'29.4"	81°38'13.2"
Pile	30°11'26.7"	81°38'18.9"
Ruins	30°11'26.8"	81°38'12.0"
Pile	30°11'21.3"	81°38'31.4"
Ruins	30°11'27.5"	81°38'27.5"
Ruins	30°11'16.5"	81°38'27.0"
Piling	30°09'58.0"	81°39'12.0"
Pile/Ruins	30°08'58.8"	81°40'34.9"
Ruins	30°08'56.4"	81°40'36.0"
Pile	30°07'45.1"	81°38'35.5"
Pile	30°07'56.7"	81°38'03.4"
Pile	30°07'54.5"	81°41'37.5"
Ruins	30°09'01.6"	81°41'57.5"
Pile	30°10'09.8"	81°41'38.4"
Stakes PA	30°11'07.0"	81°41'41.0"
Dols PA	30°11'09.6"	81°41'39.0"
Piles	30°11'15.6"	81°41'35.3"

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

Dangers to Navigation

One Danger To Navigation Report was submitted to the Marine Chart Division, N/CS3x1, Silver Spring, Maryland. A copy of this report is appended in 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.

11492 (19th Edition, Nov 24/01)

ADEQUACY OF SURVEY

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

Reginald L. Keene Sr.

Reginald L. Keene Sr.

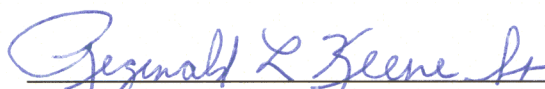
Cartographer

Verification of Field Data

Evaluation and Analysis

APPROVAL SHEET
H11216

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.



Reginald L. Keene Sr.
Cartographer,
Atlantic Hydrographic Branch

Date: 2-9-2005

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
Linate Commander, NOAA
Chief, Atlantic Hydrographic Branch

Date: 2/9/05