

NOAA FORM 76-35A

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

## DESCRIPTIVE REPORT

*Type of Survey*      **Hydrographic**

*Registry No.*        **H11418**

## LOCALITY

*State/Territory*    Georgia

*General Locality*   Brunswick River

*Sub-locality*        St Simons Sound to Bar Channel

**2006**

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:

**H11418**

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: **Georgia**  
General Locality: **Brunswick River**  
Sub-Locality: **St Simons Sound to Bar Channel**  
Scale: **1:10,000** Date of Survey: Feb.09, 2006 to Mar. 28, 2006  
Instructions Dated: **23 Feb 2005** Project Number: **OPR-G443-NRT2-05**  
Vessel: **NOAA Launch 1210**  
Chief of Party: **David B. Elliott - Team Leader**  
Surveyed by: **David Elliott, Robert Ramsey & Laurie Brennan (NRT2)**  
Soundings by: **ODOM ECHOTRAC CV**  
Graphic record scaled by: **DE, RR, FY**  
Graphic record checked by: **DE, RR, FY**  
Protracted by: **N/A** Automated Plot: **HP-750C**  
Verification by: **Atlantic Hydrographic Branch**  
Soundings in: **Meters at MLLW**

Remarks:

- 1) All Times are UTC.*
- 2) This is a basic Hydrographic Survey under the Navigable Area Concept.*
- 3) Projection is UTM Zone 17.*

***Bold, Italic, Red notes were made during office processing.***

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H11418, NRT2

## **DESCRIPTIVE REPORT**

**to accompany**

**OPR-G443**

**HYDROGRAPHIC SURVEY**

**H-11418**

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

**Year of Survey: 2006**

**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-NRT-05\*, Brunswick Georgia. The instructions are dated Feb. 23, 2005..

The purpose of this project is to collect new hydrography in the vicinity of the Port of Brunswick, GA. Results from the contemporary hydrography and 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-11418 are as follows:

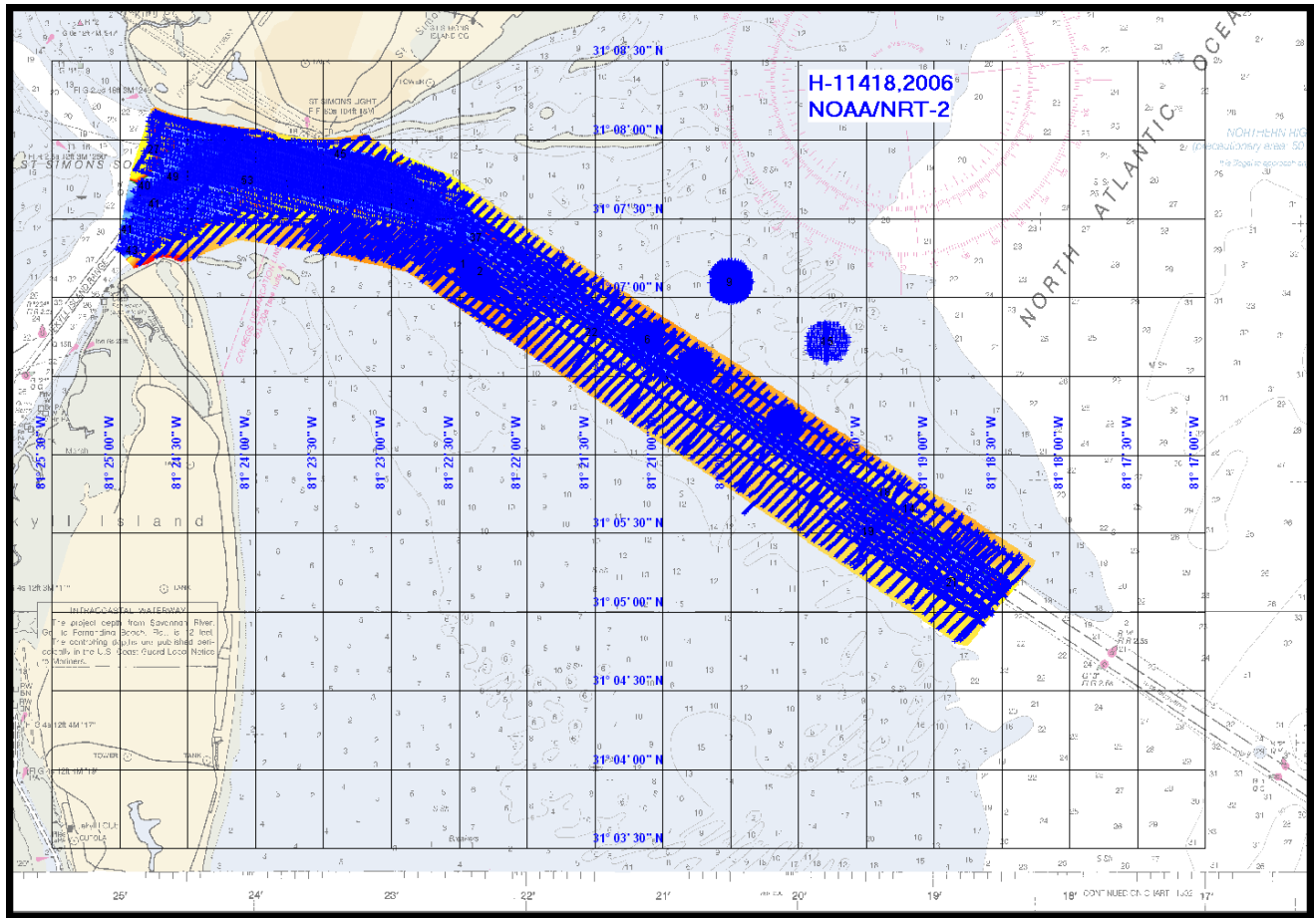
31° 07' 04" N  
081° 25' 55" W  
31° 04' 25" N  
081° 17' 26" W

Survey Dates: Feb. 09, 2006 (DN: 040) to, March 28, 2006 (DN:087)

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

***\* Filed with original field reports.***

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

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.

An ODOM EchotracCV, Fathometer, was used to collect all echo soundings on this survey

A Klein 3000 side scan sonar, was used throughout this survey. The side scan sonar equipment was used to investigate AWOIS items.

A Trimble DGPS Beacon Receiver was used as the primary navigation station on launch 1210.

A Trimble Pathfinder ProXRS was used for all ENC high accuracy positioning and establishment of calibration points.

The instruments used for determining corrections for the speed of sound through the water column were a Seabird-Seacat Velocity Profiler, model 19-03 and ODOM Digibar.

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

Following the Field Procedures Manual and the NOS Hydrographic Surveys Specifications and Deliverables Manual, June 2005 has insured the integrity of the survey data for H-11418.

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.

#### **Echo Sounder Control**

Lead line comparisons were conducted daily and compared to the digital depth and draft.

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

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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 100/500kHz. *Concur.*

A coverage of 200% was obtained wherever possible in the required survey areas and where water depth and/or hazards permitted. Side scan sonar coverage was conducted to the 12-foot depth curve 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, or sea state, were seen periodically. Significant contacts and shadows were processed with Caris 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. *See Evaluation Report.*

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. *Concur.*

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. *See Evaluation Report.*

### **Junctions**

There was one Junction for comparison on H-11418. The NOAA Ship Whiting conducted H10764, 1:10,000, in 1997. This survey's junction was on the east side of H-11418. Survey depths compared favorably within two to three feet in most regions. *Do not concur. H10764 is a prior not a junction. No junction surveys exist for this project.*

### **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. *Do not concur. There was no Separates III submitted for this project. For sound velocity profile data see the submitted CARIS data..*

There are no deviations to be discussed in this section. *Concur.*

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### 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. 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. *Concur.*

Field soundings are corrected by unverified actual heights from NOAA/CO-OPS.

The Real Time Actual 6 min Tides are downloaded from:

"[http://co-ops.nos.noaa.gov/data\\_res.html](http://co-ops.nos.noaa.gov/data_res.html)", for all gauges required in the given projects defined by the ZDF file provided in the project letter, and instruction. Tide values are downloaded in blocks of data that covers the Times of Hydrography, and saved in a text file format. The MapInfo program is then used with the "HYDRO\_MI" pre-Survey function, of "Create Cowlis", this function converts the text file into a Caris tide file (.tid). *Concur with clarification. Final tide zoning was applied by AHB personnel.*

All elevations and soundings on survey H-11418 are based on MLLW unless otherwise specified. *Concur.*

A Request for Approved Tides letter was sent to N/OPS1 on April 21, 2006 (Appendix V\*).

#### **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 Beacon.

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. *Concur.*

*\* Filed with original field reports.*



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## D. RESULTS AND RECOMMENDATIONS

### **D.1 Chart Comparison**

There are two charts affected by this survey:

<u>Chart Number</u>	<u>Edition</u>	<u>Edition Date</u>	<u>Scale</u>
11502	29 <sup>th</sup>	Feb. 01, 2004	1:80,000
11506	42 <sup>nd</sup>	Dec. 01, 2005	1:40,000

<u>ENC Cell</u>	<u>Last Updated</u>	<u>Corresponding Chart</u>	<u>Version</u>
US4GA11M	February 1, 2005	11502	2
US5GA13M	February 1, 2005	11506	2

#### **General Agreement with Charted soundings *See Evaluation Report.***

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.

#### **The following is a list of comparisons between the survey data and charted shoals or potentially hazardous features as well as notable sounding discrepancies on the chart:**

1.) The charted bearing shoal at 31° 07' 24.3" N, 081° 23' 26.4" W, now reflects depths from 6 to 8 feet.

Other remaining charted shoal soundings and documentation can be found in the PSS, "wgfs1" in Pydro.

#### **The following is a list of comparisons with controlling depths, tabulated depths and reported depths of maintained channels:**

There are eight depths in "The St Simon Bar Cut" that are 33 feet, one foot above the tabulated depth of 34 foot. The most prominent is at 31° 05' 37.84" N, 081° 19' 23.87" W.

While these depths may or may not change with smooth tides there is a discrepancy noted. These differences in depth could be the result of the methods used by the USACOE and NOAA in determining the sounding depth rounding to an even foot. Unless the Marine Chart Division has other information provided to them that proves otherwise the depths from H-11418 should supersede all other channel depths. Upon completion of final verification and processing any discrepancies noted at that time should warrant notification of the USACOE of the current status of this tabulation. *See Evaluation Report.*

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### **AWOIS Item Investigations**

There were seven AWOIS items within the survey limits. These items were investigated with Side Scan Sonar. The detailed documentation for these features can be found in the PSS in Pydro and the AWOIS database record in Appendix III\*. *Concur.*

*Any charted features that were investigated on H-11418 that contain the label PA, ED, PD or Rep that were not assigned as AWOIS can be found in the PSS in Pydro. Concur.*

### **Dangers to Navigation**

There were two DTONS within the confines of H-11418, the reference for these features can be found in the Appendices section II\*. The geographic locations for these DTONS are all new positions to the chart. These items were submitted in advance to MCD. *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. *Concur.*

### **Ferry Routes**

There are no Ferry routes within the confines of H-11418. *Concur.*

### **Submarine Cables and Pipelines**

There is one submerged cable crossing, no submerged pipeline crossing and no overhead cable-crossing areas within the confines of H-11418. *Concur with clarification. No cables were seen in side-scan record.*

### **Bridges**

There are no bridges within the confines of H-11418. *Concur.*

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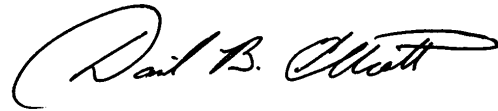
## **E. APPROVAL SHEET**

**OPR-G443-NRB**  
Brunswick River  
**Brunswick, GA**  
**Survey Registry No. H-11418**

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 by:



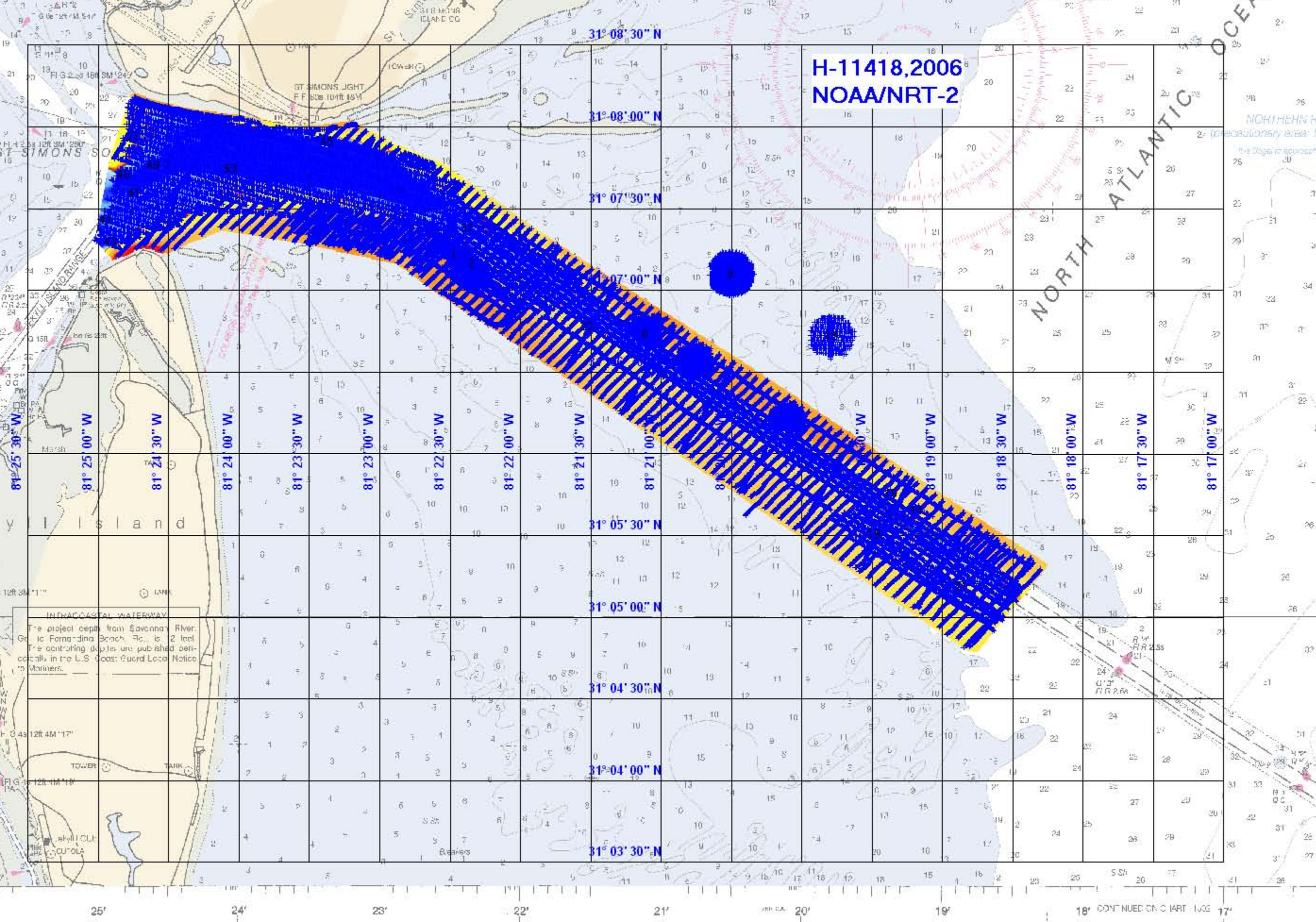
**David B.**  
**Elliott – Team Leader**  
**Navigation Response Team 2**

APPENDIX I  
SURVEY OUTLINE



H-11418, 2006  
NOAA/NRT-2

NORTH ATLANTIC OCEAN



INTRACOASTAL WATERWAY  
The project depth from Savannah River, Georgia to Fort Pierce, Florida is 2 feet. The controlling depths are published periodically in the U.S. Coast Guard Local Notice to Mariners.



APPENDIX II  
DANGERS TO NAVIGATION

# H11418 - Dangers to Navigation

**Registry Number:** H-11418  
**State:** Georgia  
**Locality:** Brunswick River  
**Sub-locality:** St. Simons Sound to Bar Channel  
**Project Number:** OPR-G443-NRT2-05  
**Survey Date:** 02/14/2006

## Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
11506	41st	12/01/2004	1:40,000 (11506_1)	[L]NTM: ?
11489	35th	02/01/2004	1:40,000 (11489_1)	[L]NTM: ?
11502	29th	02/01/2004	1:80,000 (11502_1)	[L]NTM: ?
11480	38th	05/01/2003	1:449,659 (11480_1)	[L]NTM: ?
11009	37th	07/01/2004	1:1,200,000 (11009_1)	[L]NTM: ?
411	49th	03/01/2003	1:2,160,000 (411_1)	[L]NTM: ?

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

## Features

No.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	257/1 LD=2.73 ft @ MLLW over charted 15ft isolated shoal	Sounding	0.72 m	31° 07' 10.1" N	081° 22' 20.6" W	---
1.2	424/1 LD=1.29ft @ MLLW Shoaling	Sounding	0.27 m	31° 07' 12.8" N	081° 22' 27.8" W	---

**1 - DR\_DToN**



**1.1) 257/1 LD=2.73 ft @ MLLW over charted 15ft isolated shoal****DANGER TO NAVIGATION****Survey Summary**

**Survey Position:** 31° 07' 10.1" N, 081° 22' 20.6" W  
**Least Depth:** 0.72 m (= 2.36 ft = 0.393 fm = 0 fm 2.36 ft)  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh) [None] ; TVU (TPEv) [None]  
**Timestamp:** 2006-045.14:13:50.686 (02/14/2006)  
**Survey Line:** h11418 / nrt2\_1210\_sb / 2006-045 / 019\_1413  
**Profile/Beam:** 257/1  
**Charts Affected:** 11489\_1, 11506\_1, 11502\_1, 11480\_1, 11009\_1, 411\_1

**Remarks:**

Least depth over development of isolated 15 foot shoal. Soundings now show the existence of large shoal development extending to the NW and SW of this position. This sounding represents the seaward shoal value associated with this development. Soundings to 1 foot are located to the NW and are addressed by a separate DT0N.

**Feature Correlation**

Address	Feature	Range	Azimuth	Status
h11418/nrt2_1210_sb/2006-045/019_1413	257/1	0.00	000.0	Primary

**Hydrographer Recommendations**

Remove the currently charted 15 foot shoal and add a 1-3 foot shoal defined by the developed soundings.

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

2ft (11489\_1, 11506\_1, 11502\_1)

0 ¼fm (11480\_1, 11009\_1, 411\_1)

**S-57 Data**

**Geo object 1:** Sounding (SOUNDG)  
**Attributes:** INFORM - Charting change  
 OBJNAM - Shoal sounding  
 QUASOU - 1:depth known  
 TECSOU - 1:found by echo-sounder

VERDAT - 12:Mean lower low water

## Office Notes

Concur. Chart new survey soundings.

### Feature Images

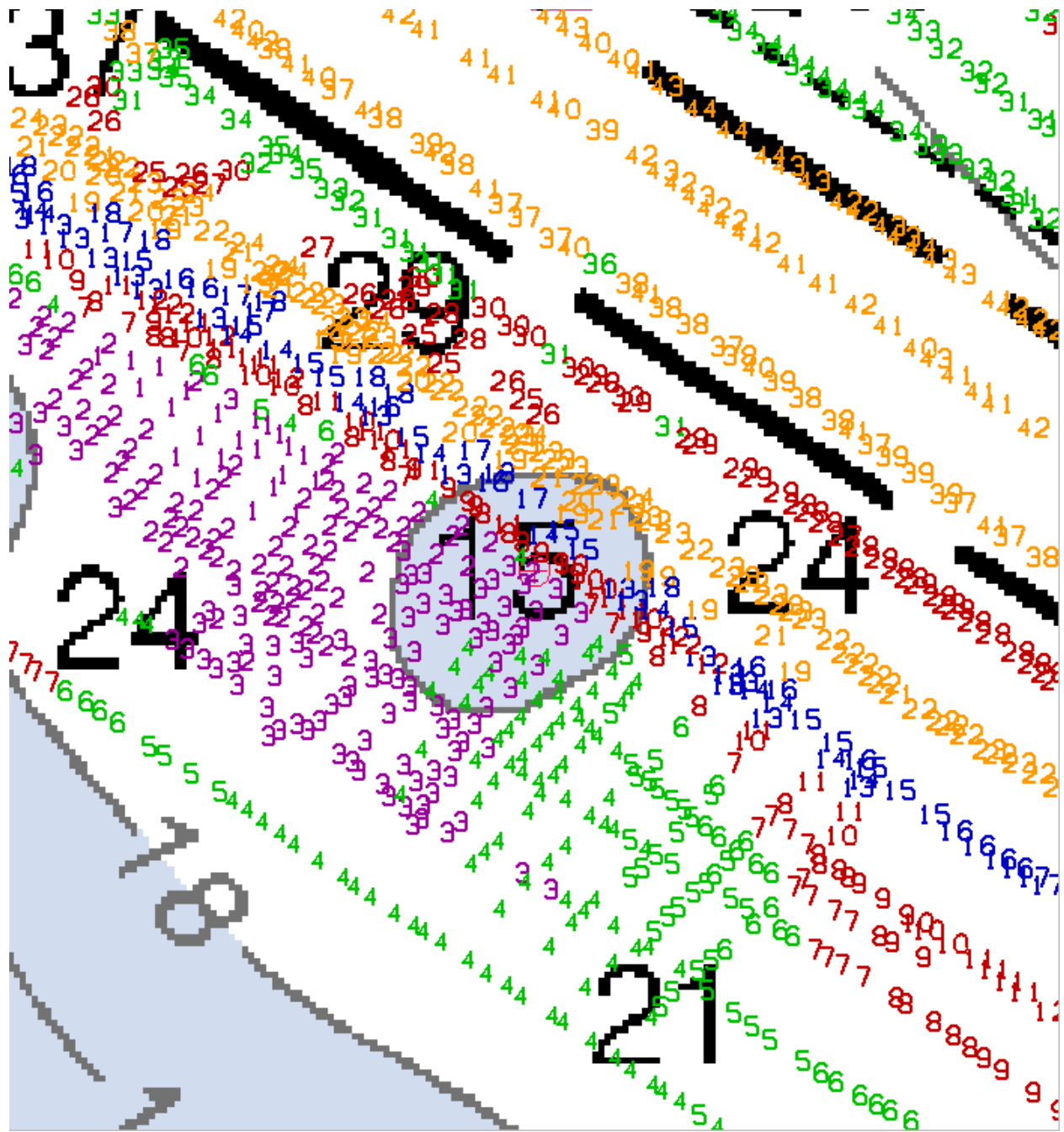


Figure 1.1.1

**1.2) 424/1 LD=1.29ft @ MLLW Shoaling****DANGER TO NAVIGATION****Survey Summary**

**Survey Position:** 31° 07' 12.8" N, 081° 22' 27.8" W  
**Least Depth:** 0.27 m (= 0.89 ft = 0.148 fm = 0 fm 0.89 ft)  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh) [None] ; TVU (TPEv) [None]  
**Timestamp:** 2006-045.14:22:49.065 (02/14/2006)  
**Survey Line:** h11418 / nrt2\_1210\_sb / 2006-045 / 004\_1422  
**Profile/Beam:** 424/1  
**Charts Affected:** 11489\_1, 11506\_1, 11502\_1, 11480\_1, 11009\_1, 411\_1

**Remarks:**

Large shoal development on a NW/SE axis, extending from 31°07'17.218" , -081°22'37.696" to 31°07'08.521" , -081°22'19.486"; varying in with from 21m at the NW to 200m at the SE. This area is currently charted at 24-29 feet deep, the shoal soundings throughout range from 1-3 feet deep at MLLW. Further development resulted in a 0ft at 031° 07' 12.500" -81° 22' 27.938", approximately 10m due south.

**Feature Correlation**

Address	Feature	Range	Azimuth	Status
h11418/nrt2_1210_sb/2006-045/004_1422	424/1	0.00	000.0	Primary

**Hydrographer Recommendations**

Chart the extent of this shoal, and remove the isolated 15 foot sounding charted in the vicinity.

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

1ft (11489\_1, 11506\_1, 11502\_1)

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

**S-57 Data**

**Geo object 1:** Sounding (SOUNDG)  
**Attributes:** INFORM - Large shoal development  
 OBJNAM - Shoal development  
 QUASOU - 1:depth known

TECSOU - 1:found by echo-sounder

VERDAT - 12:Mean lower low water

## Office Notes

Concur. Chart new survey soundings.

### Feature Images

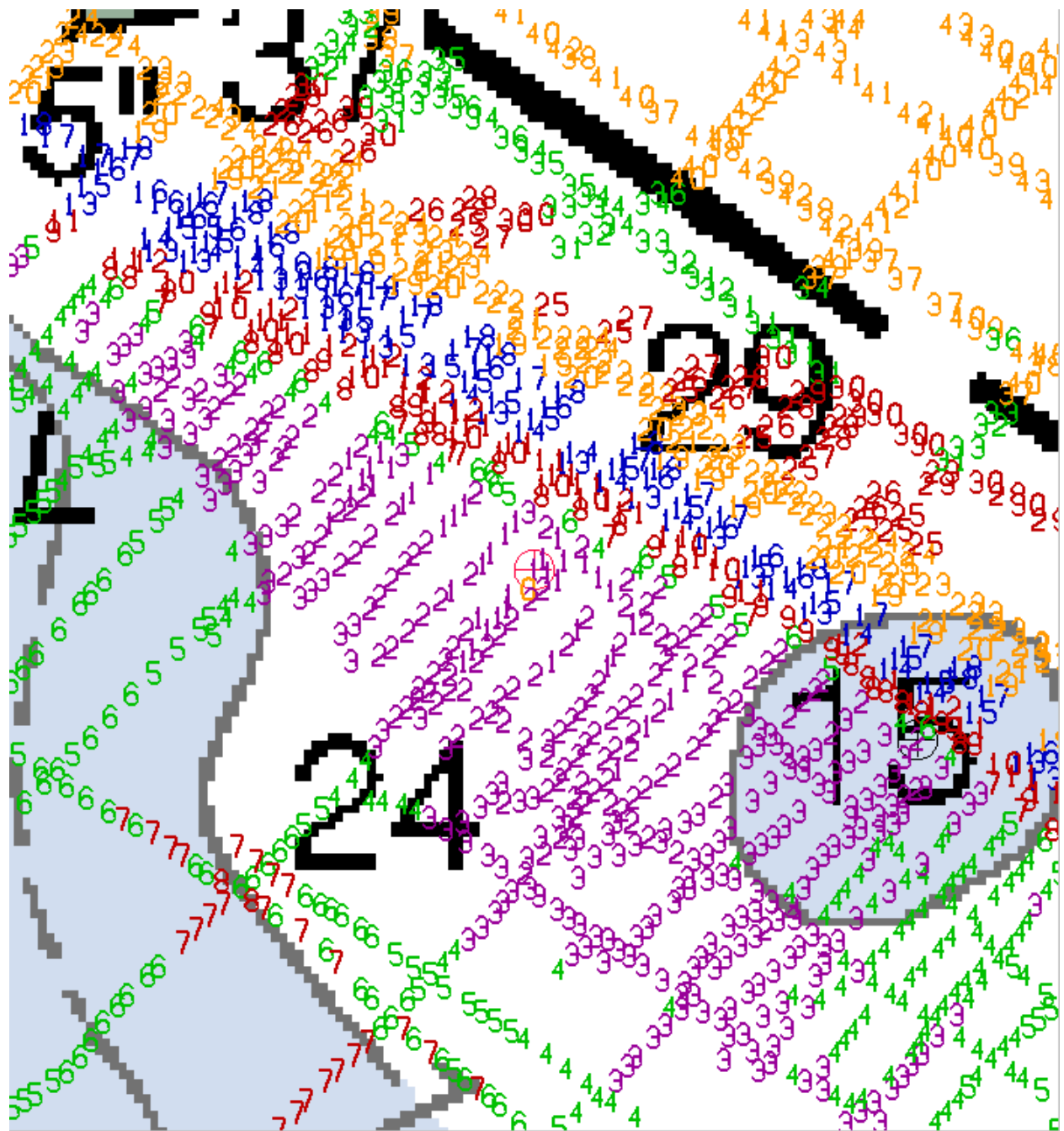


Figure 1.2.1

APPENDIX III  
AWOIS

# H11418 - AWOIS Items

**Registry Number:** H-11418  
**State:** Georgia  
**Locality:** Brunswick River  
**Sub-locality:** St. Simons Sound to Bar Channel  
**Project Number:** OPR-G443-NRT2-05  
**Survey Dates:** 02/14/2006 - 03/28/2006

## Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
11506	41st	12/01/2004	1:40,000 (11506_1)	[L]NTM: ?
11507	32nd	12/01/2004	1:40,000 (11507_7)	[L]NTM: ?
11502	29th	02/01/2004	1:80,000 (11502_1)	[L]NTM: ?
11480	38th	05/01/2003	1:449,659 (11480_1)	[L]NTM: ?
11009	37th	07/01/2004	1:1,200,000 (11009_1)	[L]NTM: ?
411	49th	03/01/2003	1:2,160,000 (411_1)	[L]NTM: ?

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

## Features

No.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	2231/1LD of 19ft @mllw in area of Awois 12974	Sounding	5.68 m	31° 05' 30.6" N	081° 19' 29.1" W	12974
1.2	581/1 LD=14ft @ mllw subm wrk (Awois:9874)	Sounding	4.34 m	31° 05' 39.3" N	081° 19' 10.8" W	9874
1.3	3835/1 LD=1.6ft @mllw (Awois 9875)	Sounding	0.69 m	31° 06' 13.0" N	081° 20' 07.7" W	9875
1.4	805/1 LD=6ft @mllw (Awois 9876)	Sounding	2.06 m	31° 06' 34.1" N	081° 20' 43.8" W	9876
1.5	727/1 LD=6 ft @ mllw (Awois 9877)	Sounding	1.76 m	31° 06' 43.9" N	081° 21' 06.5" W	9877
1.6	2195/1 LD=15ft @ mllw (Awois 9878)	Sounding	4.36 m	31° 06' 43.4" N	081° 19' 47.2" W	9878
1.7	1076/1 LD=9ft @ mllw (Awois 12970)	Wreck	2.84 m	31° 07' 05.7" N	081° 20' 30.4" W	12970



**1 - DR\_AWOIS**

## 1.1) 2231/1LD of 19ft @mmlw in area of Awois 12974

### Primary Feature for AWOIS Item #12974

**Search Position:** 31° 05' 30.8" N, 081° 19' 29.3" W  
**Historical Depth:** [None]  
**Search Radius:** 150  
**Search Technique:** VS, SD, MB, S2, ES, DI  
**Technique Notes:** VERIFY IF TIDE GAUGE STILL EXIST AND IF FOUND, PROVIDE ACCURATE POSTION.

#### History Notes:

L-482/81--USACE; A TIDE GAUGE WAS ADDED THROUGH L-482/81, BY THE USACE, AT A PA POSITION OF 31/05/30N 81/05/30W (NAD 27). TIDE GAUGE STRUCTURE IS A ORANGE AND WHITE STRIPED STEEL PIPE WITH A LIGHT INSTALLED ON THE STRUCTURE PLATFORM. THE TIDE GAUGE POSITION WAS ALSO PUBLISHED IN LNM 16/81 BY 7TH USCG. ENTERED CEH 12/04■■■OPR-G443-NRT2-05, H-11418, 2006: 200% SSS operation were conducted throughout the search area with NO contacts observed. The hydrographer recommends removal of this charted feature.

### Survey Summary

**Survey Position:** 31° 05' 30.6" N, 081° 19' 29.1" W  
**Least Depth:** 5.68 m (= 18.63 ft = 3.105 fm = 3 fm 0.63 ft)  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh) [None] ; TVU (TPEv) [None]  
**Timestamp:** 2006-045.17:30:15.300 (02/14/2006)  
**Survey Line:** h11418 / nrt2\_1210\_sb / 2006-045 / 208\_1727  
**Profile/Beam:** 2231/1  
**Charts Affected:** 11506\_1, 11502\_1, 11480\_1, 11009\_1, 411\_1

#### Remarks:

SSS work was conducted on DN044 045, with NO contacts made within the search area. Visual inspection also revealed nothing.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
h11418/nrt2_1210_sb/2006-045/208_1727	2231/1	0.00	000.0	Primary
OPR-G443-BrunswickAwois	AWOIS # 12974	9.14	144.7	Secondary

## Hydrographer Recommendations

Remove the charted Tide Gage. Chart surveyed soundings within this area.

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

18ft (11506\_1, 11502\_1)

3fm (11480\_1, 11009\_1, 411\_1)

## S-57 Data

**Geo object 1:** Sounding (SOUNDG)  
**Attributes:** INFORM - soundings near Awois 12974  
OBJNAM - general sounding  
QUASOU - 1:depth known  
STATUS - 2:occasional  
TECSOU - 1:found by echo-sounder  
VERDAT - 12:Mean lower low water

## Office Notes

Concur. Remove charted Tide gage (lighted) PA.

### Feature Images

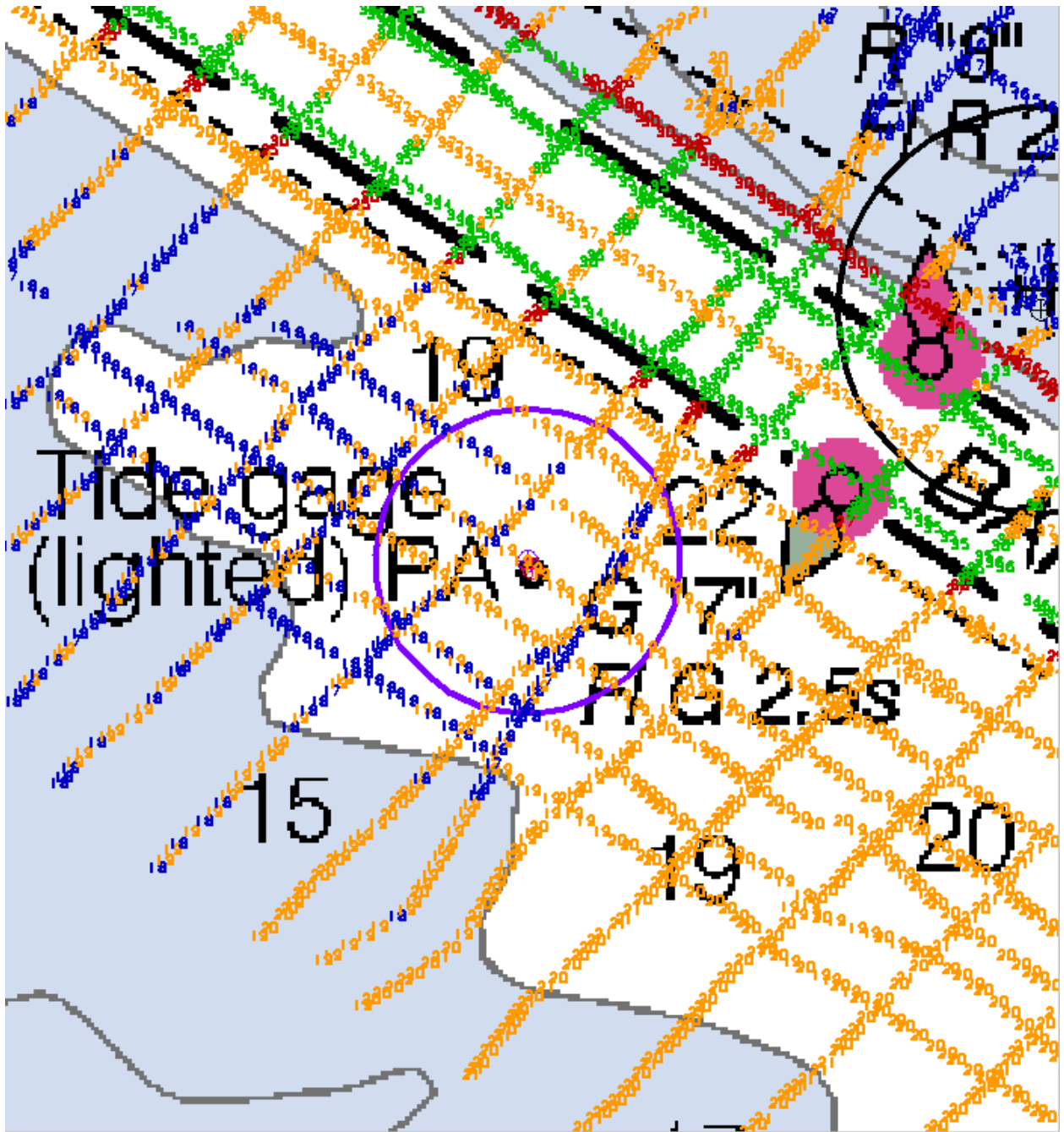


Figure 1.1.1

**1.2) 581/1 LD=14ft @ mllw subm wrk (Awois:9874)****Primary Feature for AWOIS Item #9874**

**Search Position:** 31° 05' 38.8" N, 081° 19' 10.3" W  
**Historical Depth:** [None]  
**Search Radius:** 200  
**Search Technique:** S2,MB,ES,SD,DI,VS  
**Technique Notes:** [None]

**History Notes:**

LNM50/89(12/12/89)--7TH CGD; WRECKAGE REPORTED IN LAT 31-05-38N, LONG 81-19-11W (NAD27). (ENTERED 2/97 RWD) H10764/97--INVESTIGATION INCOMPLETE, RETAIN A DANG SUBM WK (PA) AT CHARTED POSITION. (UPDATED 9/98 RWD) OPR-G443-NRT2-05, H-11418, 2006, SSS operation conducted on DN:044 045, identified contact of wreckage. SB work conducted on DN:067 verified LD of 15ft @mllw, at 31°05'39.264" , -081°19'10.884". Recommend removing the charted "Wreck,PA", and charting a subm WRK symbol at the above position of the LD. RWR

**Survey Summary**

**Survey Position:** 31° 05' 39.3" N, 081° 19' 10.8" W  
**Least Depth:** 4.34 m (= 14.24 ft = 2.374 fm = 2 fm 2.24 ft)  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh) [None] ; TVU (TPEv) [None]  
**Timestamp:** 2006-073.14:29:25.074 (03/14/2006)  
**Survey Line:** h11418 / nrt2\_1210\_sb / 2006-073 / 027\_1428  
**Profile/Beam:** 581/1  
**Charts Affected:** 11506\_1, 11502\_1, 11480\_1, 11009\_1, 411\_1

**Remarks:**

Awois 9874. Exist as charted. SB sounding verified SSS contact at charted location on DN:067, and DN:073

**Feature Correlation**

Address	Feature	Range	Azimuth	Status
h11418/nrt2_1210_sb/2006-073/027_1428	581/1	0.00	000.0	Primary
h11418/nrt2_1210_klein3000hf_100sss/2006-044/sss060213172700	0003	0.80	088.4	Secondary
h11418/nrt2_1210_sb/2006-067/011_2002	1243/1	1.95	059.5	Secondary
OPR-G443-BrunswickAwois	AWOIS # 9874	19.18	317.3	Secondary

## Hydrographer Recommendations

Retain as charted with adjusted survey position 31°05'39.296" , -081°19'10.821" , and Remove the charted "PA".

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

14ft (11506\_1, 11502\_1)

2 ¼fm (11480\_1, 11009\_1, 411\_1)

## S-57 Data

**Geo object 1:** Sounding (SOUNDG)  
**Attributes:** EXPSOU - 2:shoaler than range of depth of the surrounding depth area  
INFORM - Awois 9874  
OBJNAM - Wrk Sounding  
QUASOU - 1:depth known  
STATUS - 17:un-watched  
TECSOU - 1,2:found by echo-sounder,found by side scan sonar  
VERDAT - 12:Mean lower low water

## Office Notes

Concur with clarification. Retain charted WK in charted position. Remove "PA" text.

### Feature Images

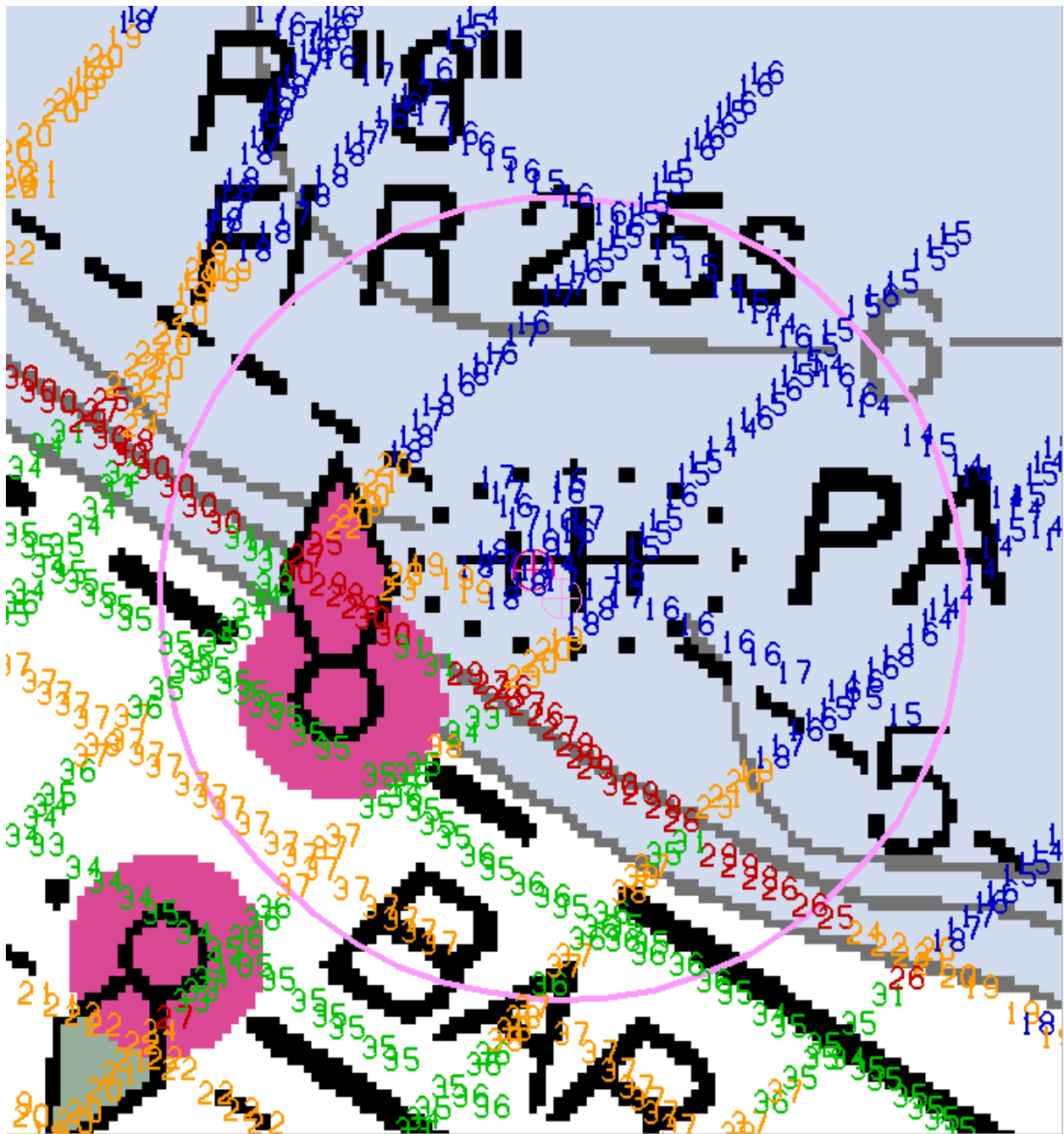


Figure 1.2.1

**1.3) 3835/1 LD=1.6ft @mllw (Awois 9875)****Primary Feature for AWOIS Item #9875**

**Search Position:** 31° 06' 12.0" N, 081° 20' 06.0" W  
**Historical Depth:** [None]  
**Search Radius:** 200  
**Search Technique:** VS,ES,BD,DI,SD,MB,S2  
**Technique Notes:** [None]

**History Notes:**

LNM43/95(10/24/95)--7TH CGD; SEA STALKER (63FT F/V), VISIBLE WRECK REPORTED IN LAT 31-06-12N, LONG 81-20-06W. (ENTERED 2/97 RWD) H10764/97--INVESTIGATION INCOMPLETE, RETAIN A DANG SUBM WRECK (PA) AT THE CHARTED POSITION. (UPDATED 9/98 RWD) OPR-G443-NRT2-05, H11418, 2006: SSS work was conducted on DN044 045, with no contacts noted. MS single beam work covered the area on DN:067, indication of a developed 2-3 foot shoal was found to be located within the search area. XL single beam passed through the search area validating the shoal development. No indications of a wrk were noted. 200% sss coverage was completed in the lower third of the search area with no contacts noted. Due to the shallow depth of water in the remaining search area, 20m reduced line spacing sb work was completed throughout. No signs of the charted subm wreck were noted, however a 3 ft shoal was noted in the proximity. Recommend charting the survey soundings in this area, and removing from the charts the currently charted subm wrk.

**Survey Summary**

**Survey Position:** 31° 06' 13.0" N, 081° 20' 07.7" W  
**Least Depth:** 0.69 m (= 2.28 ft = 0.379 fm = 0 fm 2.28 ft)  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh) [None] ; TVU (TPEv) [None]  
**Timestamp:** 2006-066.17:29:08.916 (03/07/2006)  
**Survey Line:** h11418 / nrt2\_1210\_sb / 2006-066 / 005\_1725  
**Profile/Beam:** 3835/1  
**Charts Affected:** 11506\_1, 11502\_1, 11480\_1, 11009\_1, 411\_1

**Remarks:**

200% sss coverage was completed in the lower third of the search area with no contacts noted. Due to the shallow depth of water in the remaining search area, 20m reduced line spacing sb work was completed throughout. No signs of the charted subm wreck were noted, however a 3 ft shoal was noted in the proximity.

**Feature Correlation**

Address	Feature	Range	Azimuth	Status
h11418/nrt2_1210_sb/2006-066/005_1725	3835/1	0.00	000.0	Primary



OPR-G443-BrunswickAwois	AWOIS # 9875	54.69	302.7	Secondary
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## Hydrographer Recommendations

Recommend charting the survey soundings in this area, and removing from the charts the currently charted subm wrk.

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

2ft (11506\_1, 11502\_1)

0 ¼fm (11480\_1, 11009\_1, 411\_1)

## S-57 Data

**Geo object 1:** Sounding (SOUNDG)

**Attributes:** EXPSON - 2:shoaler than range of depth of the surrounding depth area  
 INFORM - 3ft shoal area  
 OBJNAM - Shoal  
 QUASOU - 1:depth known  
 STATUS - 17:un-watched  
 TECSOU - 1,2:found by echo-sounder,found by side scan sonar  
 VERDAT - 12:Mean lower low water

## Office Notes

Do not concur. SSS was largely washed out and unreadable. Retain WK PA.

### Feature Images

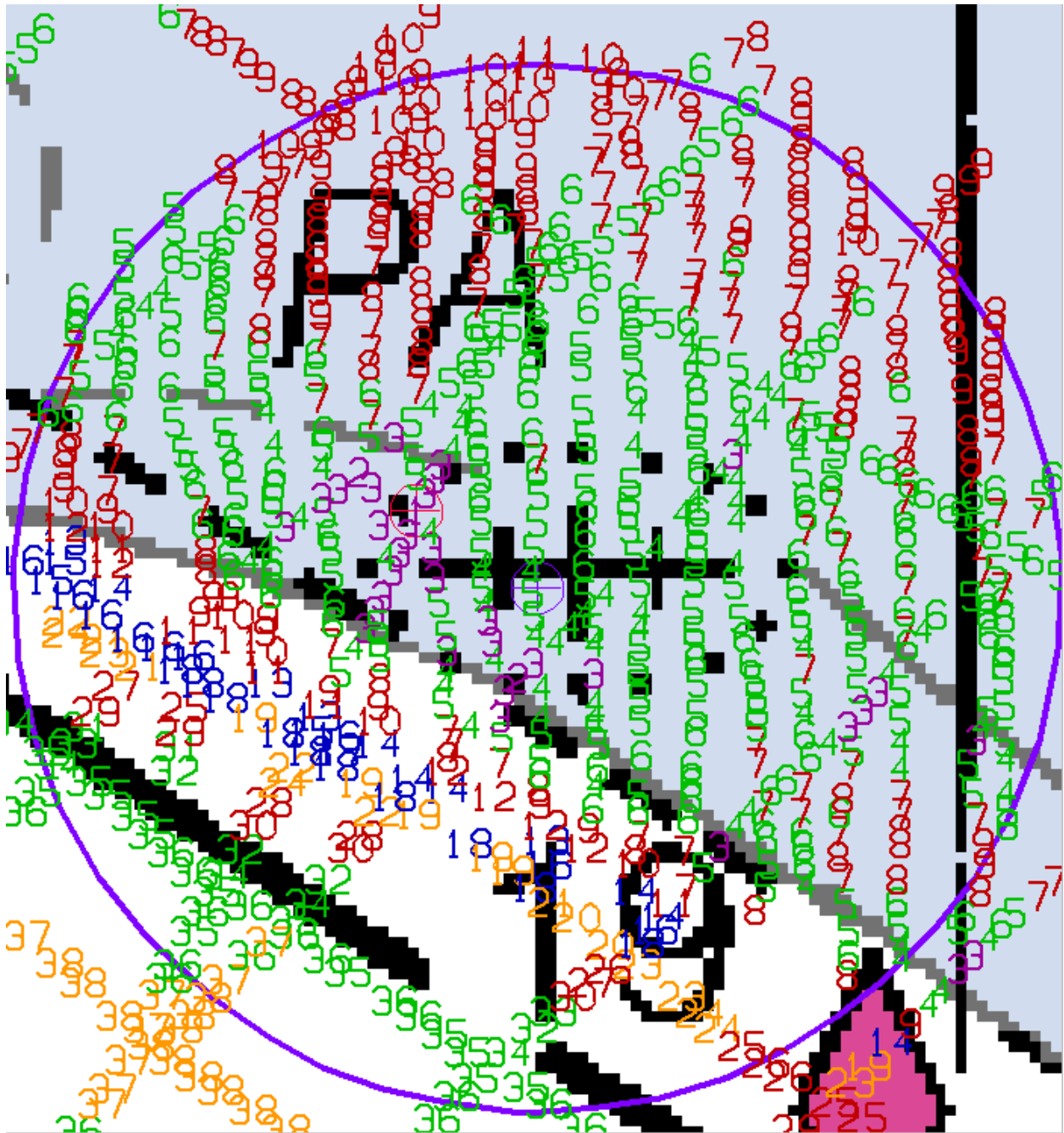


Figure 1.3.1

**1.4) 805/1 LD=6ft @mllw (Awois 9876)****Primary Feature for AWOIS Item #9876**

**Search Position:** 31° 06' 33.8" N, 081° 20' 45.3" W  
**Historical Depth:** [None]  
**Search Radius:** 200  
**Search Technique:** VS,ES,S2,MB  
**Technique Notes:** [None]

**History Notes:**

CL332/89--USCG PAPA W; SHOALING REPORTED (UNCOVERS AT LW), OBSERVED ON 4/5/89-1920GMT, POSITION GIVEN IN LAT 31-06-33N, LONG 81-20-46W (NAD27). LNM21/89(5/23/89)--7TH CGD; SAME AS ABOVE. (ENTERED 2/97 RWD) HH10764/97--VISUAL OBSERVATIONS VERIFIED A SHOAL UNCOVERING AT MLLW. (UPDATED 9/98 RWD) OPR-G443-NRT2-05, H-11418,2006; SSS work was conducted on DN044 045, with shoaling noted throughout charted area. MS single beam work was conducted within the search area on DN:067, with no supporting soundings noted to confirm "Uncovers at MLLW" on the charts; development to follow. 20m reduced line spacing sb work was completed throughout the search area, no sign of baring shoal exist in this area. Chart the current survey soundings in this area. Remove the charted "Uncovers at mllw" and the associated symboligy.

**Survey Summary**

**Survey Position:** 31° 06' 34.1" N, 081° 20' 43.8" W  
**Least Depth:** 2.06 m (= 6.77 ft = 1.129 fm = 1 fm 0.77 ft)  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh) [None] ; TVU (TPEv) [None]  
**Timestamp:** 2006-067.16:11:20.294 (03/08/2006)  
**Survey Line:** h11418 / nrt2\_1210\_sb / 2006-067 / 330\_1610  
**Profile/Beam:** 805/1  
**Charts Affected:** 11506\_1, 11502\_1, 11480\_1, 11009\_1, 411\_1

**Remarks:**

SSS work was conducted on DN044 045, with shoaling noted throughout charted area. MS single beam work was conducted within the search area on DN:067, with no supporting soundings noted to confirm "Uncovers at MLLW" on the charts; development to follow.

20m reduced line spacing sb work was completed throughout the search area, no sign of baring shoal exist in this area.

## Feature Correlation

Address	Feature	Range	Azimuth	Status
h11418/nrt2_1210_sb/2006-067/330_1610	805/1	0.00	000.0	Primary
OPR-G443-BrunswickAwois	AWOIS # 9876	42.81	079.0	Secondary

## Hydrographer Recommendations

Chart the current survey soundings in this area. Remove the charted "Uncovers at mllw" and the associated symboligy.

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

7ft (11506\_1, 11502\_1)

1fm (11480\_1, 11009\_1, 411\_1)

## S-57 Data

**Geo object 1:** Sounding (SOUNDG)

**Attributes:** EXPSOU - 2:shoaler than range of depth of the surrounding depth area

INFORM - for removal of "Uncovers @ mllw"

OBJNAM - sounding

QUASOU - 1:depth known

STATUS - 17:un-watched

TECSOU - 1,2:found by echo-sounder,found by side scan sonar

VERDAT - 12:Mean lower low water

## Office Notes

Concur. Remove charted obstrn and text "Uncovers at MLLW"



## 1.5) 727/1 LD=6 ft @ mllw (Awois 9877)

### Primary Feature for AWOIS Item #9877

**Search Position:** 31° 06' 43.8" N, 081° 21' 07.3" W  
**Historical Depth:** [None]  
**Search Radius:** 200  
**Search Technique:** VS,ES,S2,MB  
**Technique Notes:** [None]

#### History Notes:

NM49/89(12/9/89)--SHOAL TO BARE, REPORTED IN LAT 31-06-43N, LONG 81-21-08W (NAD27). (ENTERED 2/97 RWD) H10764/97--VISUAL OBSERVATIONS VERIFIED A SHOAL UNCOVERING AT MLLW. (UPDATED 9/98 RWD) OPR-G443-NRT2-05, H-11418,2006; SSS work was conducted on DN044 045, with shoaling noted throughout charted area. MS single beam work was conducted within the search area on DN:067, with no supporting soundings noted to confirm "Uncovers at MLLW" on the charts; development to follow. 20m reduced line spacing sb work was completed throughout the area with no "Uncovers @ mllw" noted. Chart the current survey soundings. Remove the charted "Uncovers @ mllw" and associated symbology.

### Survey Summary

**Survey Position:** 31° 06' 43.9" N, 081° 21' 06.5" W  
**Least Depth:** 1.76 m (= 5.77 ft = 0.962 fm = 0 fm 5.77 ft)  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh) [None] ; TVU (TPEv) [None]  
**Timestamp:** 2006-087.16:42:11.107 (03/28/2006)  
**Survey Line:** h11418 / nrt2\_1210\_sb / 2006-087 / 187\_1641  
**Profile/Beam:** 727/1  
**Charts Affected:** 11506\_1, 11502\_1, 11480\_1, 11009\_1, 411\_1

#### Remarks:

SSS work was conducted on DN044 045, with shoaling noted throughout charted area. MS single beam work was conducted within the search area on DN:067, with no supporting soundings noted to confirm "Uncovers at MLLW" on the charts; development to follow.

20m reduced line spacing sb work was completed throughout the area with no "Uncovers @ mllw" noted.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
h11418/nrt2_1210_sb/2006-087/187_1641	727/1	0.00	000.0	Primary
OPR-G443-BrunswickAwois	AWOIS # 9877	21.71	080.8	Secondary

## Hydrographer Recommendations

Chart the current survey soundings. Remove the charted "Uncovers @ mllw" and associated symbology.

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

6ft (11506\_1, 11502\_1)

1fm (11480\_1, 11009\_1, 411\_1)

## S-57 Data

**Geo object 1:** Sounding (SOUNDG)  
**Attributes:** EXPSOU - 1:within the range of depth of the surrounding depth area  
OBJNAM - sounding  
QUASOU - 1:depth known  
STATUS - 17:un-watched  
TECSOU - 1:found by echo-sounder  
VERDAT - 12:Mean lower low water

## Office Notes

Concur. Remove charted obstrn with text "Uncovers at MLLW"

### Feature Images

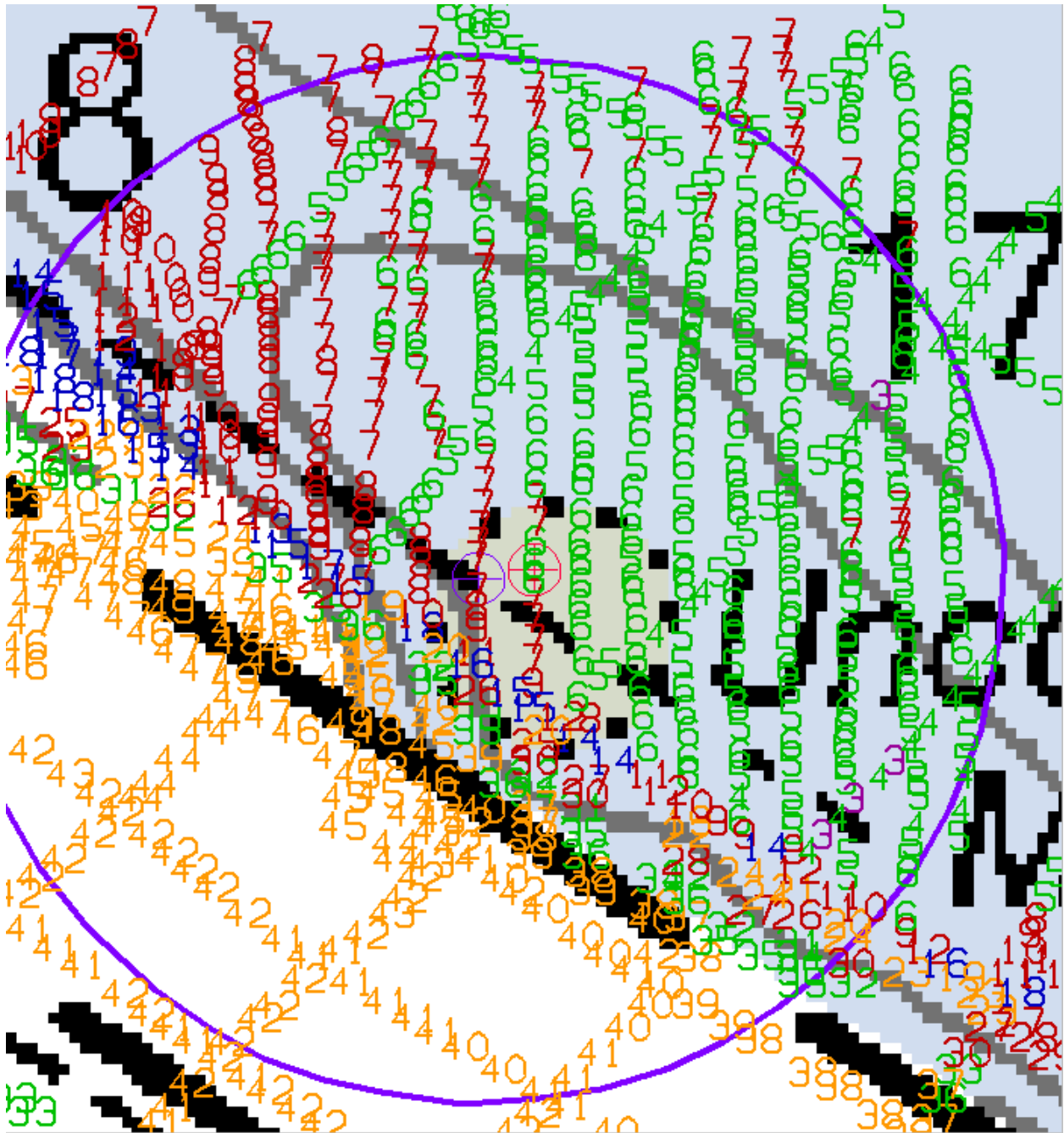


Figure 1.5.1



**1.6) 2195/1 LD=15ft @ mllw (Awois 9878)****Primary Feature for AWOIS Item #9878**

**Search Position:** 31° 06' 42.8" N, 081° 19' 47.3" W  
**Historical Depth:** [None]  
**Search Radius:** 250  
**Search Technique:** VS,ES,BD,DI,SD,S2,MB  
**Technique Notes:** [None]

**History Notes:**

LNM17/86(4/29/86)--7TH CGD; TOMMY LEE (30FT F/V) REPORTED SUNK. POSITION REVISSED BELOW. ■ LNM18/86(5/6/86)--7TH CGD; POSITION REVISSED TO LAT 31-06-42N, LONG 81-19-48W (NAD27). (ENTERED 2/97 RWD) ■ H10764/97--WRECK NOT INVESTIGATED. (UPDATED 9/98 RWD)

**Survey Summary**

**Survey Position:** 31° 06' 43.4" N, 081° 19' 47.2" W  
**Least Depth:** 4.36 m (= 14.30 ft = 2.383 fm = 2 fm 2.30 ft)  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh) [None] ; TVU (TPEv) [None]  
**Timestamp:** 2006-087.17:34:28.529 (03/28/2006)  
**Survey Line:** h11418 / nrt2\_1210\_sb / 2006-087 / 004\_1732  
**Profile/Beam:** 2195/1  
**Charts Affected:** 11506\_1, 11502\_1, 11480\_1, 11009\_1, 411\_1

**Remarks:**

200% sss was conducted throughout the search area with no contacts found.

**Feature Correlation**

Address	Feature	Range	Azimuth	Status
h11418/nrt2_1210_sb/2006-087/004_1732	2195/1	0.00	000.0	Primary
OPR-G443-BrunswickAwois	AWOIS # 9878	16.76	015.6	Secondary

**Hydrographer Recommendations**

Recommend Removal of the charted subm wrk.

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

14ft (11506\_1, 11502\_1)

2 ¼fm (11480\_1, 11009\_1, 411\_1)

### **S-57 Data**

**Geo object 1:** Sounding (SOUNDG)

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

OBJNAM - sounding

QUASOU - 1:depth known

STATUS - 17:un-watched

TECSOU - 1:found by echo-sounder

VERDAT - 12:Mean lower low water

### **Office Notes**

Do not concur. SSS imagery was largely unreadable. Item not disproved. Retain charted Wk PA.

### Feature Images

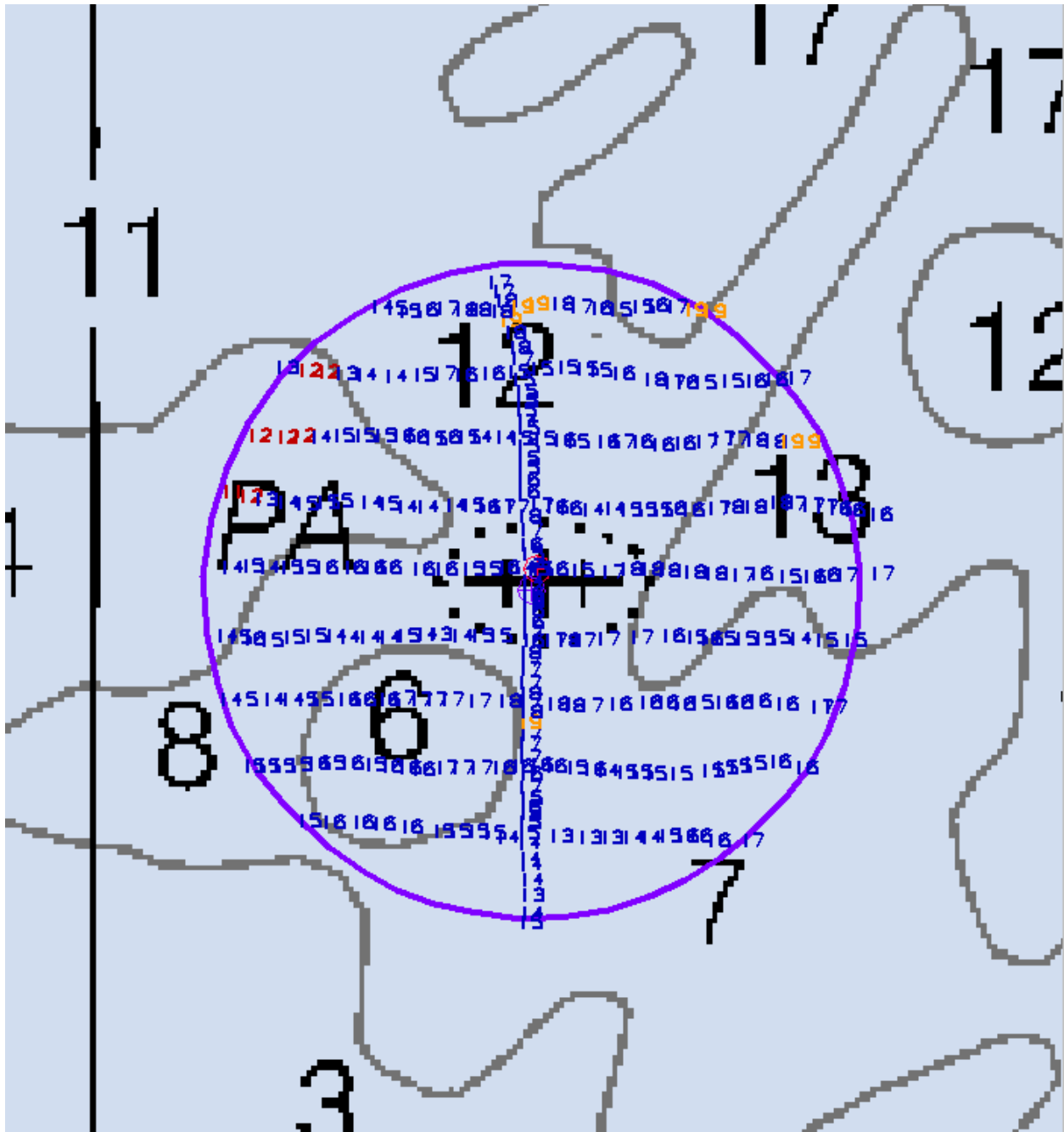


Figure 1.6.1

**1.7) 1076/1 LD=9ft @ mllw (Awois 12970)**

**Primary Feature for AWOIS Item #12970**

**Search Position:** 31° 07' 06.0" N, 081° 20' 30.0" W  
**Historical Depth:** [None]  
**Search Radius:** 250  
**Search Technique:** VS,SD  
**Technique Notes:** [None]

**History Notes:**

LNM 34/98--8/25/98; ADD VISIBLE WRECK (60 WHITE/BLUE SHRIMPER F/V CINDY) IN PA 31/07/06.0 N 81/20/30.0 W.

**Survey Summary**

**Survey Position:** 31° 07' 05.7" N, 081° 20' 30.4" W  
**Least Depth:** 2.84 m (= 9.33 ft = 1.555 fm = 1 fm 3.33 ft)  
**TPU (±1.96σ):** THU (TPEh) [None] ; TVU (TPEv) [None]  
**Timestamp:** 2006-087.19:29:43.644 (03/28/2006)  
**Survey Line:** h11418 / nrt2\_1210\_sb / 2006-087 / 147\_1928  
**Profile/Beam:** 1076/1  
**Charts Affected:** 11506\_1, 11507\_7, 11502\_1, 11480\_1, 11009\_1, 411\_1

**Remarks:**

Two sss lines were ran over the center with no contacts, the water depth was too shallow to complete coverage with the side scan sonar. 20m reduced line spacing development was completed throughout. No visual signs were noted of a vis wrk, and the sea state was less than one foot with at low tide during all search time.

**Feature Correlation**

Address	Feature	Range	Azimuth	Status
h11418/nrt2_1210_sb/2006-087/147_1928	1076/1	0.00	000.0	Primary
OPR-G443-BrunswickAwois	AWOIS # 12970	12.60	227.6	Secondary

## Hydrographer Recommendations

Remove the charted vis wreck and chart the survey soundings in the area.

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

9ft (11506\_1, 11507\_7, 11502\_1)

1 ½fm (11480\_1, 11009\_1, 411\_1)

## S-57 Data

**Geo object 1:** Wreck (WRECKS)  
**Attributes:** CATWRK - 2:dangerous wreck  
SORDAT - 20060328  
SORIND - US,US,Nsurf,H11418\_2m  
VALSOU - 2.844 m  
WATLEV - 3:always under water/submerged

## Office Notes

Concur with clarification. Remove charted Vis. WK PA, chart Subm. WK PA.

### Feature Images

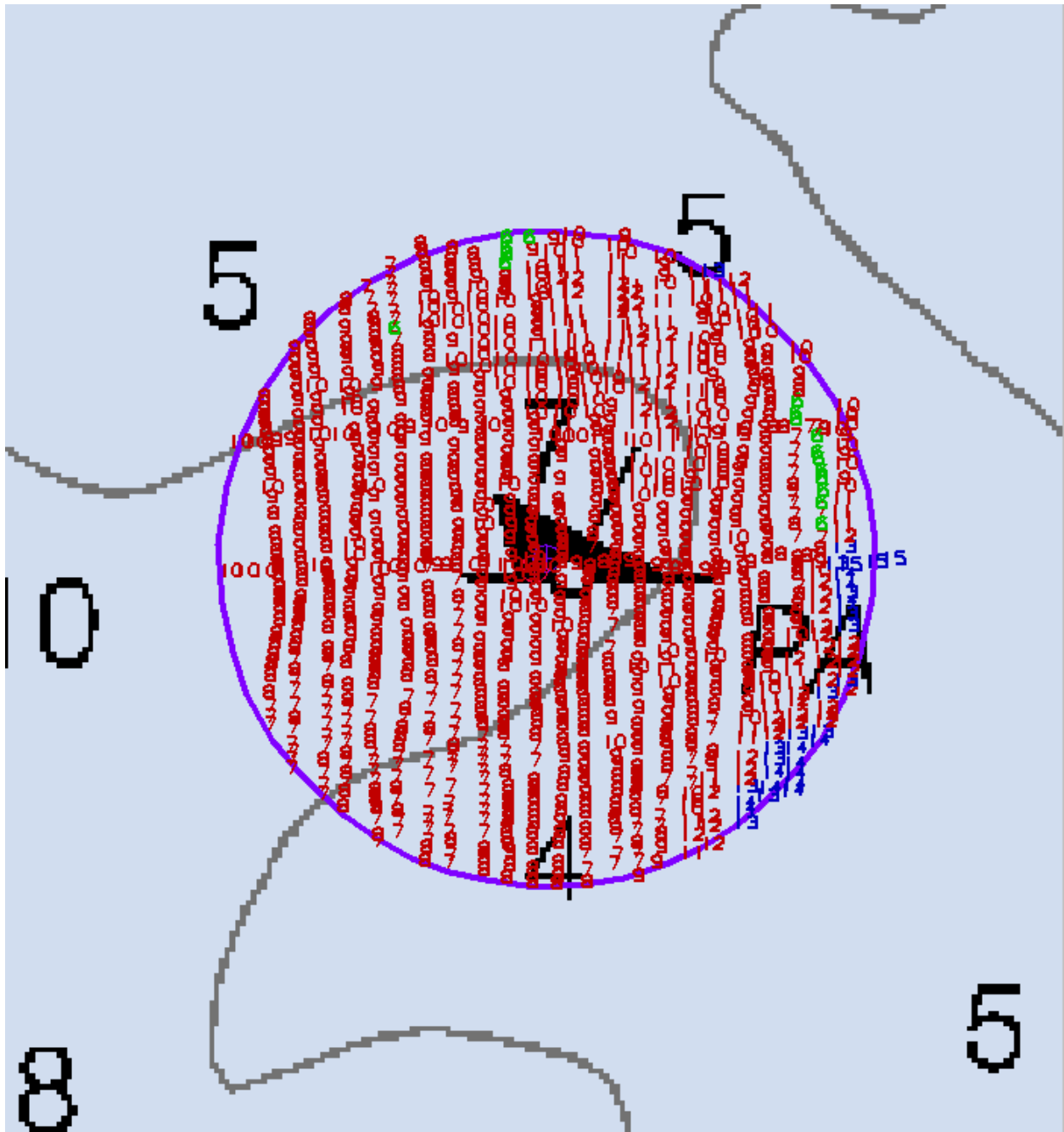


Figure 1.7.1

# H11418 - Charted Items

**Registry Number:** H-11418  
**State:** Georgia  
**Locality:** Brunswick River  
**Sub-locality:** St. Simons Sound to Bar Channel  
**Project Number:** OPR-G443-NRT2-05  
**Survey Dates:** 02/28/2006 - 03/02/2006

## Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
11506	41st	12/01/2004	1:40,000 (11506_1)	[L]NTM: ?
11489	35th	02/01/2004	1:40,000 (11489_1)	[L]NTM: ?
11502	29th	02/01/2004	1:80,000 (11502_1)	[L]NTM: ?
11480	38th	05/01/2003	1:449,659 (11480_1)	[L]NTM: ?
11009	37th	07/01/2004	1:1,200,000 (11009_1)	[L]NTM: ?
411	49th	03/01/2003	1:2,160,000 (411_1)	[L]NTM: ?

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

## Features

No.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	4392/1 LD near charted lighted pile(Removal)	Sounding	6.52 m	31° 05' 11.3" N	081° 18' 52.1" W	---
1.2	1206/1 LD=6ft @mllw	Sounding	1.84 m	31° 07' 25.5" N	081° 23' 27.4" W	---

**1 - DR\_Charted**



## 1.1) 4392/1 LD near charted lighted pile(Removal)

### Survey Summary

**Survey Position:** 31° 05' 11.3" N, 081° 18' 52.1" W  
**Least Depth:** 6.52 m (= 21.39 ft = 3.565 fm = 3 fm 3.39 ft)  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh) [None] ; TVU (TPEv) [None]  
**Timestamp:** 2006-059.15:56:04.314 (02/28/2006)  
**Survey Line:** h11418 / nrt2\_1210\_sb / 2006-059 / 120\_1551  
**Profile/Beam:** 4392/1  
**Charts Affected:** 11506\_1, 11502\_1, 11480\_1, 11009\_1, 411\_1

**Remarks:**

200% SSS operation covered the charted Lighted Pile at 31.08622834 , -081.31454319. No contacts were made of this light. Visual inspection also revealed nothing.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
h11418/nrt2_1210_sb/2006-059/120_1551	4392/1	0.00	000.0	Primary
ChartGPs - Digitized	1	18.84	023.6	Secondary (grouped)

### Hydrographer Recommendations

Remove the charted pile(lighted) from the charts, add currently surveyed soundings.

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

21ft (11506\_1, 11502\_1)  
 3 ½fm (11480\_1, 11009\_1, 411\_1)

### S-57 Data

**Geo object 1:** Sounding (SOUNDG)  
**Attributes:** INFORM - sounding in area of charted light(removal)  
 OBJNAM - sounding  
 QUASOU - 1:depth known  
 STATUS - 2:occasional  
 TECSOU - 1:found by echo-sounder

VERDAT - 12:Mean lower low water

## Office Notes

Concur. Remove charted File (lighted).

### Feature Images

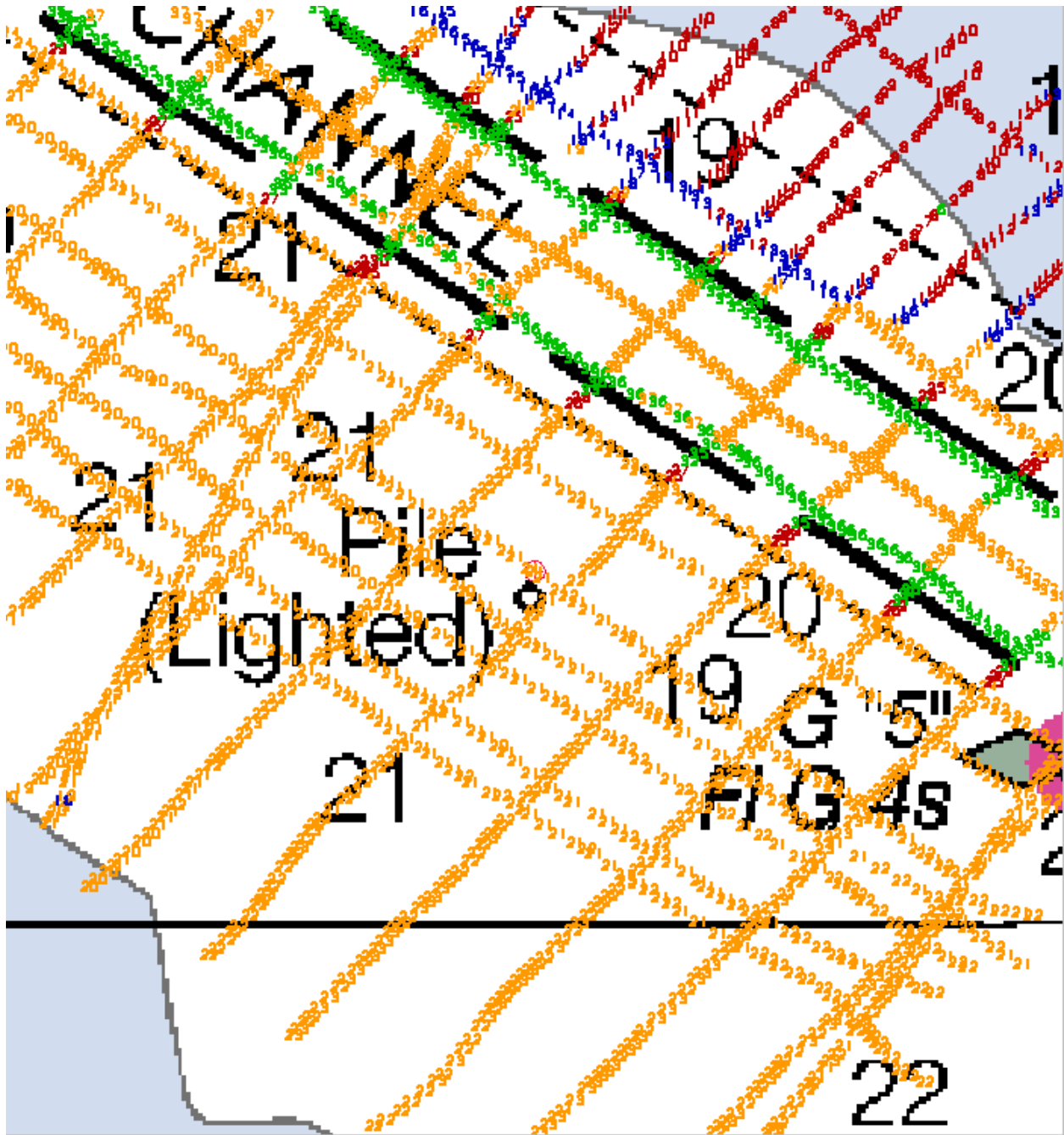


Figure 1.1.1

**1.2) 1206/1 LD=6ft @mlw****Survey Summary**

**Survey Position:** 31° 07' 25.5" N, 081° 23' 27.4" W  
**Least Depth:** 1.84 m (= 6.03 ft = 1.006 fm = 1 fm 0.03 ft)  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh) [None] ; TVU (TPEv) [None]  
**Timestamp:** 2006-061.17:04:53.227 (03/02/2006)  
**Survey Line:** h11418 / nrt2\_1210\_sb / 2006-061 / 372\_1703  
**Profile/Beam:** 1206/1  
**Charts Affected:** 11489\_1, 11506\_1, 11502\_1, 11480\_1, 11009\_1, 411\_1

**Remarks:**

The charted baring shoal in this area no longer exist.

**Feature Correlation**

Address	Feature	Range	Azimuth	Status
h11418/nrt2_1210_sb/2006-061/372_1703	1206/1	0.00	000.0	Primary
ChartGPs - Digitized	2	27.26	295.6	Secondary (grouped)

**Hydrographer Recommendations**

Chart the survey depths throughout.

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

6ft (11489\_1, 11506\_1, 11502\_1)

1fm (11480\_1, 11009\_1, 411\_1)

**S-57 Data**

**Geo object 1:** Sounding (SOUNDG)  
**Attributes:** EXPSOU - 3:deeper than range of depth of the surrounding depth area  
 INFORM - baring shoal removal  
 OBJNAM - sounding  
 QUASOU - 1:depth known  
 STATUS - 17:un-watched  
 TECSOU - 1:found by echo-sounder

VERDAT - 12:Mean lower low water

## Office Notes

Concur. chart current survey soundings.

### Feature Images

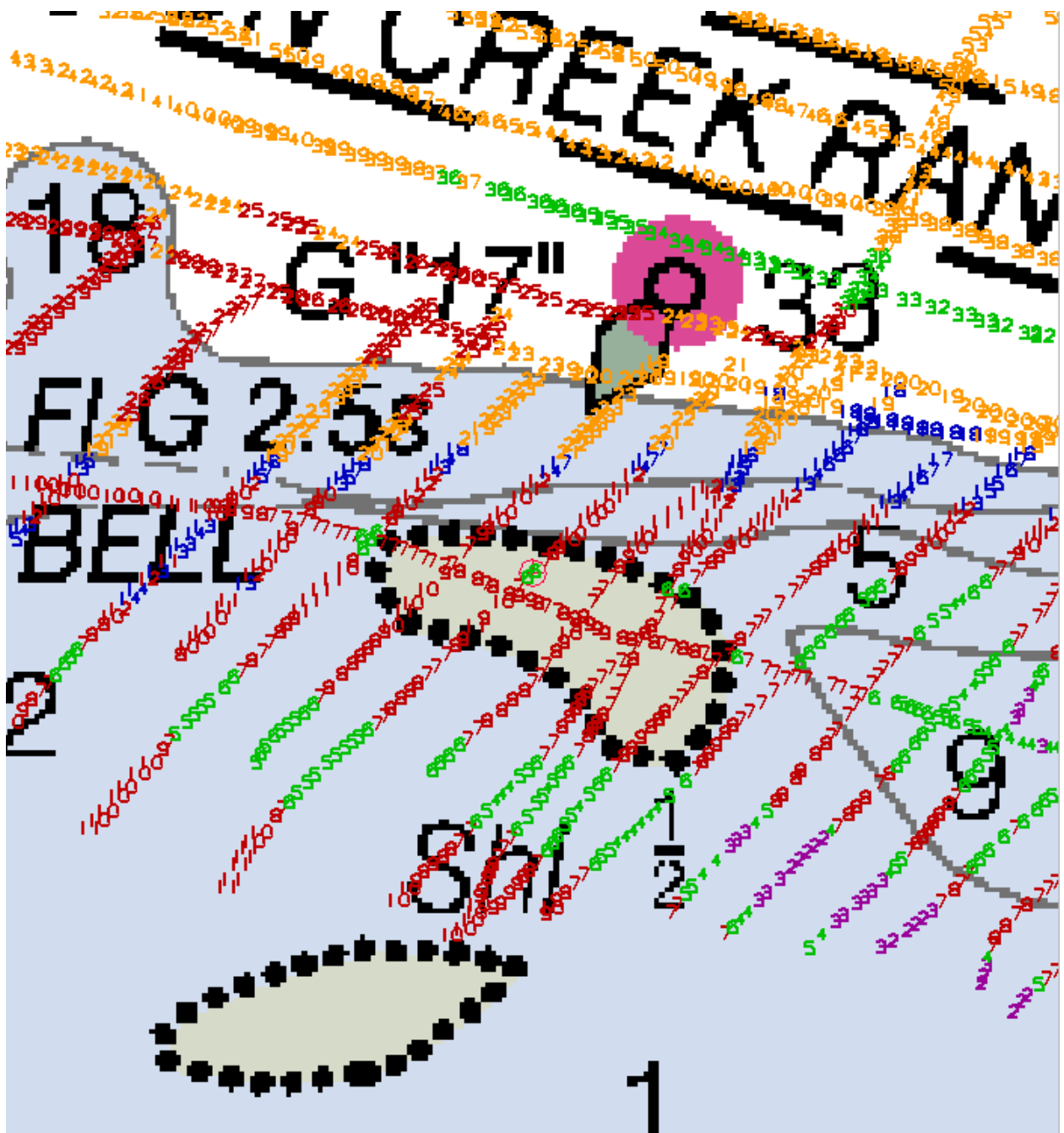


Figure 1.2.1

# H11418 - Uncharted Items

**Registry Number:** H-11418  
**State:** Georgia  
**Locality:** Brunswick River  
**Sub-locality:** St. Simons Sound to Bar Channel  
**Project Number:** OPR-G443-NRT2-05  
**Survey Date:** 03/07/2006

## Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
11506	41st	12/01/2004	1:40,000 (11506_1)	[L]NTM: ?
11489	35th	02/01/2004	1:40,000 (11489_1)	[L]NTM: ?
11502	29th	02/01/2004	1:80,000 (11502_1)	[L]NTM: ?
11480	38th	05/01/2003	1:449,659 (11480_1)	[L]NTM: ?
11009	37th	07/01/2004	1:1,200,000 (11009_1)	[L]NTM: ?
411	49th	03/01/2003	1:2,160,000 (411_1)	[L]NTM: ?

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

## Features

No.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	1766/1 LD=-1ft @mllw SHOAL	Sounding	-0.20 m	31° 07' 20.8" N	081° 23' 08.5" W	---

## **1 - DR\_UnCharted**



## 1.1) 1766/1 LD=-1ft @mllw SHOAL

### Survey Summary

**Survey Position:** 31° 07' 20.8" N, 081° 23' 08.5" W  
**Least Depth:** -0.20 m (= -0.65 ft = -0.108 fm = 0 fm 5.35 ft)  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh) [None] ; TVU (TPEv) [None]  
**Timestamp:** 2006-066.18:49:17.748 (03/07/2006)  
**Survey Line:** h11418 / nrt2\_1210\_sb / 2006-066 / 019\_1847  
**Profile/Beam:** 1766/1  
**Charts Affected:** 11489\_1, 11506\_1, 11502\_1, 11480\_1, 11009\_1, 411\_1

**Remarks:**

Baring Shoal development was noted in charted water depths of 9-10 ft. Shoal exist on a NW to SE axis and is 600m long, with wigdths to 100m, all in 3ft or less water depths.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
h11418/nrt2_1210_sb/2006-066/019_1847	1766/1	0.00	000.0	Primary

### Hydrographer Recommendations

Chart survey soundings throughout.

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

-1ft (11489\_1, 11506\_1, 11502\_1)

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

### S-57 Data

**Geo object 1:** Sounding (SOUNDG)  
**Attributes:** EXPSOU - 2:shoaler than range of depth of the surrounding depth area  
 INFORM - Shoaling area in charted 9-10ft  
 OBJNAM - Shoal  
 QUASOU - 1:depth known  
 STATUS - 17:un-watched  
 TECSOU - 1:found by echo-sounder

VERDAT - 12:Mean lower low water

## Office Notes

Concur. chart current survey soundings.

### Feature Images

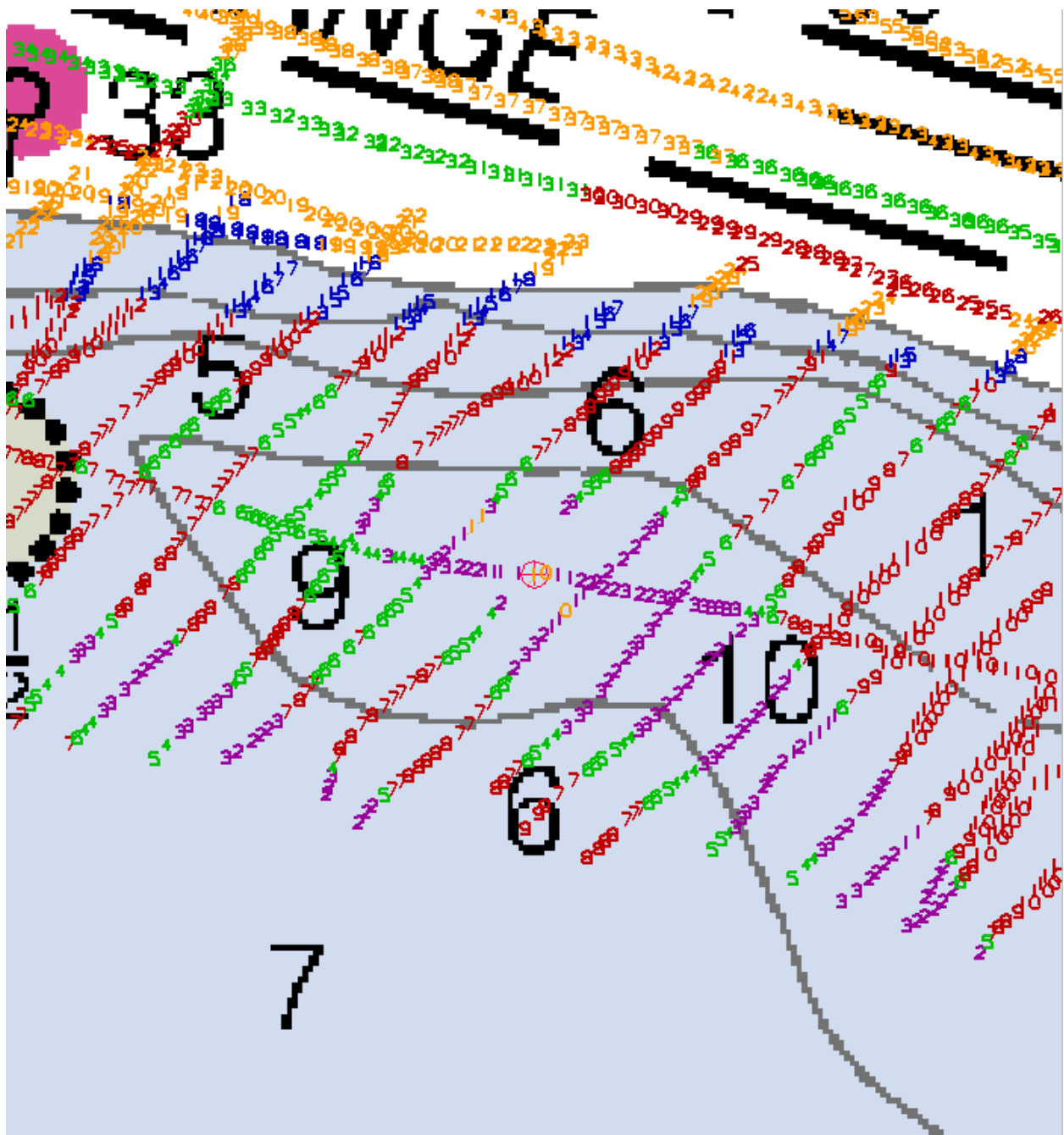


Figure 1.1.1

APPENDIX IV  
SHORELINE

APPENDIX V  
SMOOTH TIDE REQUEST

April 21, 2006

MEMORANDUM FOR: Chief, Requirements and Development Division, N/OPS1

FROM: D.B. Elliott, NOAA/OCS/NRB/NRT-2

SUBJECT: Request for Approved Tides/Water Levels

Please provide the following data:

1. Tide Note
2. Final zoning in MapInfo and .MIX format
3. Six Minute Water Level data (Co-ops web site)

Transmit data to:

NOAA/NOS/Atlantic Hydrographic Branch  
N/CS33, Building #2  
439 West York Street  
Norfolk, VA 23510  
ATTN: Chief AHB

These data are required for the processing of the following hydrographic survey:

Project No.: OPR-G443-NRT2-05  
Registry No.: H-11418  
State: Georgia  
Locality: Brunswick River  
Sublocality: St. Simons Sound to Bar Channel

Attachments containing:

- 1) an Abstract of Times of Hydrography,
- 2) digital MID MIF files of the track lines from pydro on CD/diskette

cc: N/CS33

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Year_DOY	Min Time	Max Time
2006_040	15:15:18	16:28:10
2006_044	13:31:58	19:39:08
2006_045	13:35:00	18:59:33
2006_046	15:48:04	19:05:39
2006_059	15:18:45	17:08:33
2006_061	15:40:52	18:43:28
2006_066	16:13:34	18:56:13
2006_067	13:38:26	20:04:13
2006_072	14:35:51	16:55:07
2006_073	13:45:04	16:21:56
2006_087	15:12:03	19:53:23

APPENDIX VI  
SUPPLEMENTAL SURVEY AND  
CORRESPONDENCE



APPENDIX VII  
GEONAMES



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



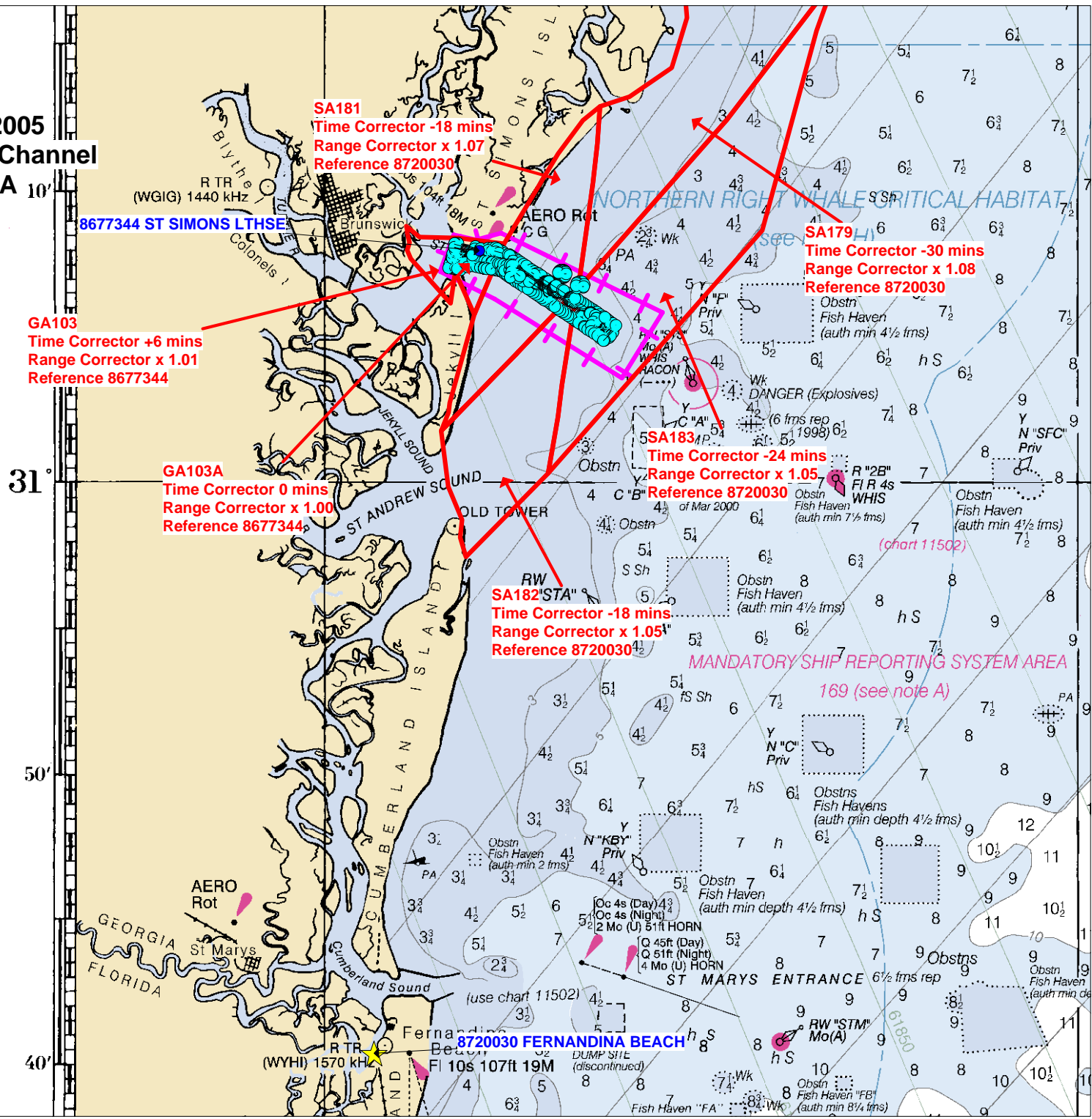
**Final tide zone node point locations for OPR-G443-NRT2-2005, H11418**

Format: Tide Station (in recommended order of use)  
 Average Time Correction (in minutes)  
 Range Correction  
 Longitude in decimal degrees (negative value denotes Longitude West),  
 Latitude in decimal degrees

	Tide Station Order	AVG Time Correction	Range Correction
Zone GA103	8677344	+6	1.01
-81.410416 31.138894			
-81.436368 31.1394			
-81.445197 31.145676			
-81.444627 31.143557			
-81.444627 31.141992			
-81.443042 31.136145			
-81.444585 31.131878			
-81.442175 31.127041			
-81.415732 31.10153			
-81.412604 31.119604			
-81.410416 31.138894			
Zone GA103A	8677344	0	1.00
-81.410416 31.138894			
-81.380231 31.135586			
-81.400026 31.09511			
-81.412604 31.119604			
-81.410416 31.138894			
Zone SA179	8720030	-30	1.08
-81.050107 31.54002			
-81.103349 31.421216			
-81.160091 31.287147			
-81.232161 31.206431			
-81.330874 31.110036			
-81.325477 31.143124			
-81.321151 31.170307			
-81.318157 31.192906			
-81.316493 31.21407			
-81.296803 31.219605			
-81.268799 31.236145			
-81.258646 31.264698			
-81.261109 31.290335			
-81.270342 31.308567			
-81.283625 31.327253			
-81.16143 31.423686			

-81.050107 31.54002			
Zone SA181	8720030	-18	1.07
-81.316493 31.21407			
-81.32788 31.206114			
-81.344263 31.187058			
-81.380231 31.135586			
-81.400026 31.09511			
-81.416277 31.044673			
-81.417119 31.039172			
-81.421956 31.028515			
-81.372241 31.072375			
-81.330874 31.110036			
-81.325477 31.143124			
-81.321151 31.170307			
-81.318157 31.192906			
-81.316493 31.21407			
Zone SA182	8720030	-18	1.05
-81.421956 31.028515			
-81.417348 30.996672			
-81.408109 30.977608			
-81.409383 30.967539			
-81.405568 30.956465			
-81.350892 31.004252			
-81.344344 31.036625			
-81.341741 31.055087			
-81.333794 31.098469			
-81.330874 31.110036			
-81.372241 31.072375			
-81.421956 31.028515			
Zone SA183	8720030	-24	1.05
-81.330874 31.110036			
-81.333794 31.098469			
-81.341741 31.055087			
-81.344344 31.036625			
-81.350892 31.004252			
-81.208599 31.14323			
-81.172537 31.257325			
-81.160091 31.287147			
-81.232161 31.206431			
-81.330874 31.110036			

**Final Tidal Zoning  
for OPR-G443-NRT2-2005  
St. Simon's Sound to Bar Channel  
Brunswick River, GA**



**ATLANTIC HYDROGRAPHIC BRANCH  
EVALUATION REPORT to Accompany  
Survey H11418 (2006)**

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:

HSTP PYDRO version 7.3 r2239  
CARIS HIPS/SIPS version 6.1 SP1 HF 1-6  
CARIS Bathym Manager version 2.1 HF 1-3  
DKART INSPECTOR, version 5.0 Build 732 SP1  
CARIS HOM version 3.3  
CARIS S57 Composer version 1.0

**B.2. QUALITY CONTROL**

**B.2.1. H-Cell**

The AHB source depth grid for the survey's nautical chart update product entailed creating a 2m surface grid. The survey scale selected soundings were extracted from this surface. The selected sounding set is approximately 10 to 20 times the number of charted depths. The chart scale selected soundings are a subset of the survey scale selected soundings.

Depth curves were created from the original 2m grid. The depth curves are forwarded to MCD for reference only. The curves were utilized during chart scale sounding selection and quality assurance efforts at AHB. The depth curves are incorporated into the S57 Blue Note deliverable.

The pre-compilation products or components (Stand Alone HOB files (SAHOB)) included depth curves (DEPCNT), sounding selections (SOUNDG), features (WRECKS), Meta objects (M\_COVR, M\_QUAL, M\_NSYS), and cartographic Blue Notes. The individual SAHOB files were inserted into one BASE Manager feature layer and exported to S57 format in order to create the H-Cell deliverable.

The completed H-Cell was exported as a Base Cell File (ENC.000) in S-57 format with all values in metric units. The metric equivalent ENC.000 file was then converted to NOAA chart units (ENC\_CU.000) with all values measured in feet following NOAA sounding rounding rules.

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

The H11418 CARIS H-Cell final deliverables include the following products:

US511418_CU.000	1:40,000 Scale	H11418 H-Cell with Chart Scale Selected Soundings and Depth Curves
US511418_SS.000	1:10,000 Scale	H11418 Selected Soundings (Survey Scale)
US511418_BlueNtoes.000	1:40,000 Scale	H11418 Cartographic Notes

## **B.2 Survey Quality Control**

It should be noted that 200% Side scan coverage was not achieved. Additionally, any cross-talk between the side scan and echosounder systems was not significant given the over-all generally degraded side scan quality. Please see graphics following this Evaluation Report.

## **D. RESULTS AND RECOMMENDATIONS**

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

11502 (31st Edition, Jan./07)  
Corrected through NM 01/27/2007  
Corrected through LNM 01/23/2007  
Scale 1:80,000

11506 (43rd Edition, Feb./07)  
Corrected through NM 02/17/2007  
Corrected through LNM 02/13/2007  
Scale 1:40,000

### **ENC Comparison**

US4GA11M  
Doboy Sound to Fernandina  
Edition 11  
Update Application Date 2006-11-27  
Issue Date 2006-11-27  
References: Chart 11502

US5GA13M  
St Simons Sound Brunswick Harbor  
& Turtle River  
Edition 8  
Update Application Date 2007-07-13  
Issue Date 2007-07-13  
References: Chart 11506

### **D.1.1 Hydrography**

The charted hydrography originates with prior surveys and requires no further consideration. The hydrographer makes adequate chart comparisons in section “D” and Appendix 1&2 of the Descriptive Report. The following exceptions are noted:

With the application of Final Tide Zoning and Approved Water Levels, no discrepancies were noted between this survey and Army Corps of Engineers tabulated channel depths.

### **D.3. 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. See Section D.1. of this report for a list of the Raster Charts and Electronic Navigation Charts (ENC) used for compiling the present survey:

### **D.4. ADEQUACY OF SURVEY**

The present survey is adequate to supersede the charted bathymetry within the common area. Any features not specifically addressed either in the H-Cell BASE Cell File or the Blue Notes should be retained as charted. Refer to the Descriptive Report for further recommendations by the hydrographer.



**APPROVAL SHEET**  
**H11418**

**Initial Approvals:**

The completed survey has been inspected with regard to survey coverage, delineation of depth curves, representation of critical depths, cartographic symbolization, and verification or disproval of charted data. All revisions and additions made to the H-Cell files during survey processing have been entered in the digital data for this survey. The survey records and digital data comply with National Ocean Service and Office of Coast Survey requirements except where noted in the Descriptive Report and the Evaluation Report.

All final products have undergone a comprehensive reviews per the Hydrographic surveys Division Office Processing Manual and are verified to be accurate and complete except where noted.

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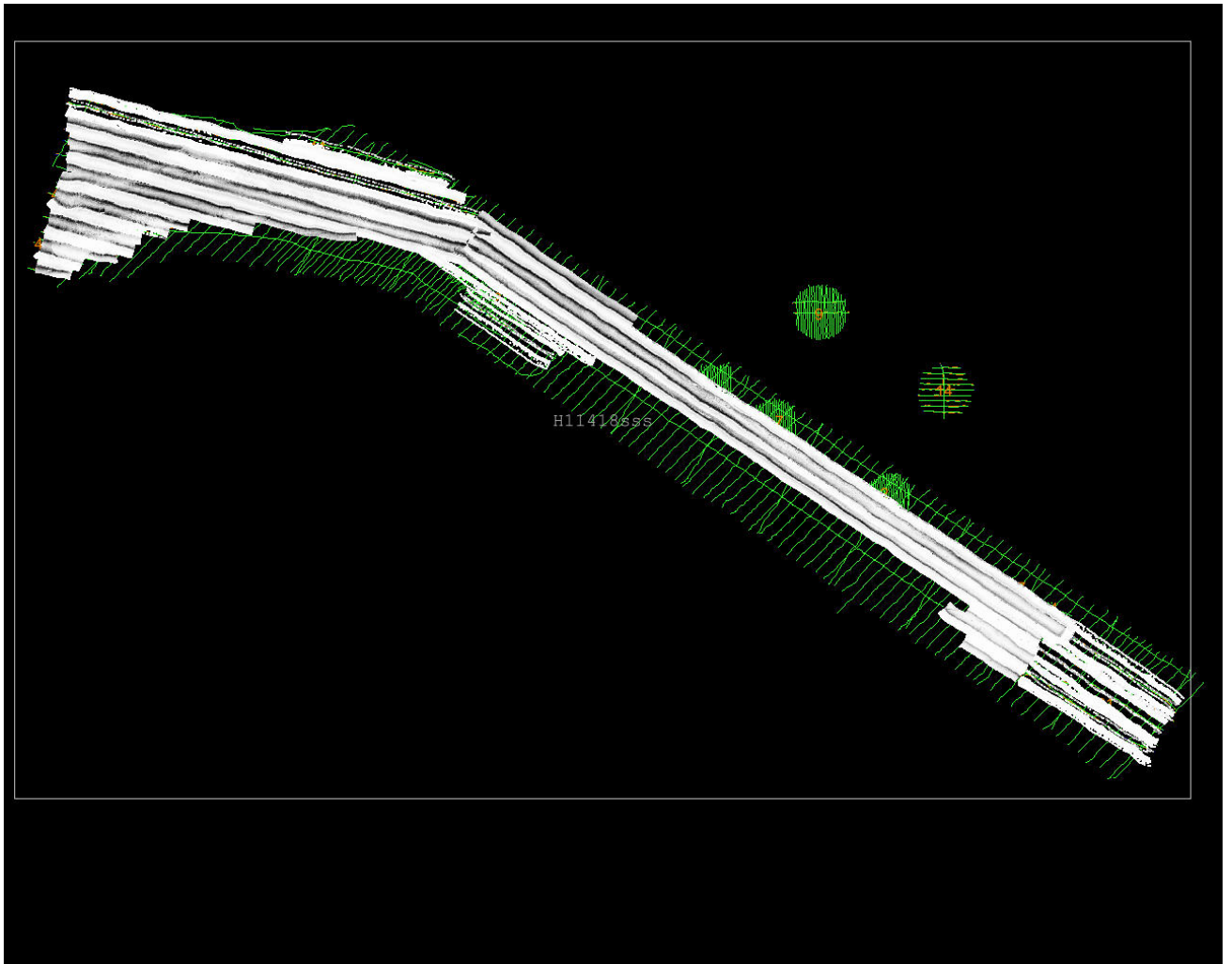
**Sarah M. Eggleston**  
Physical Scientist  
Atlantic Hydrographic Branch

I have reviewed the H-Cell files, accompanying data, and reports. This survey and accompanying Marine Chart Division deliverables meet National Ocean Service requirements and standards for products in support of nautical charting except where noted.

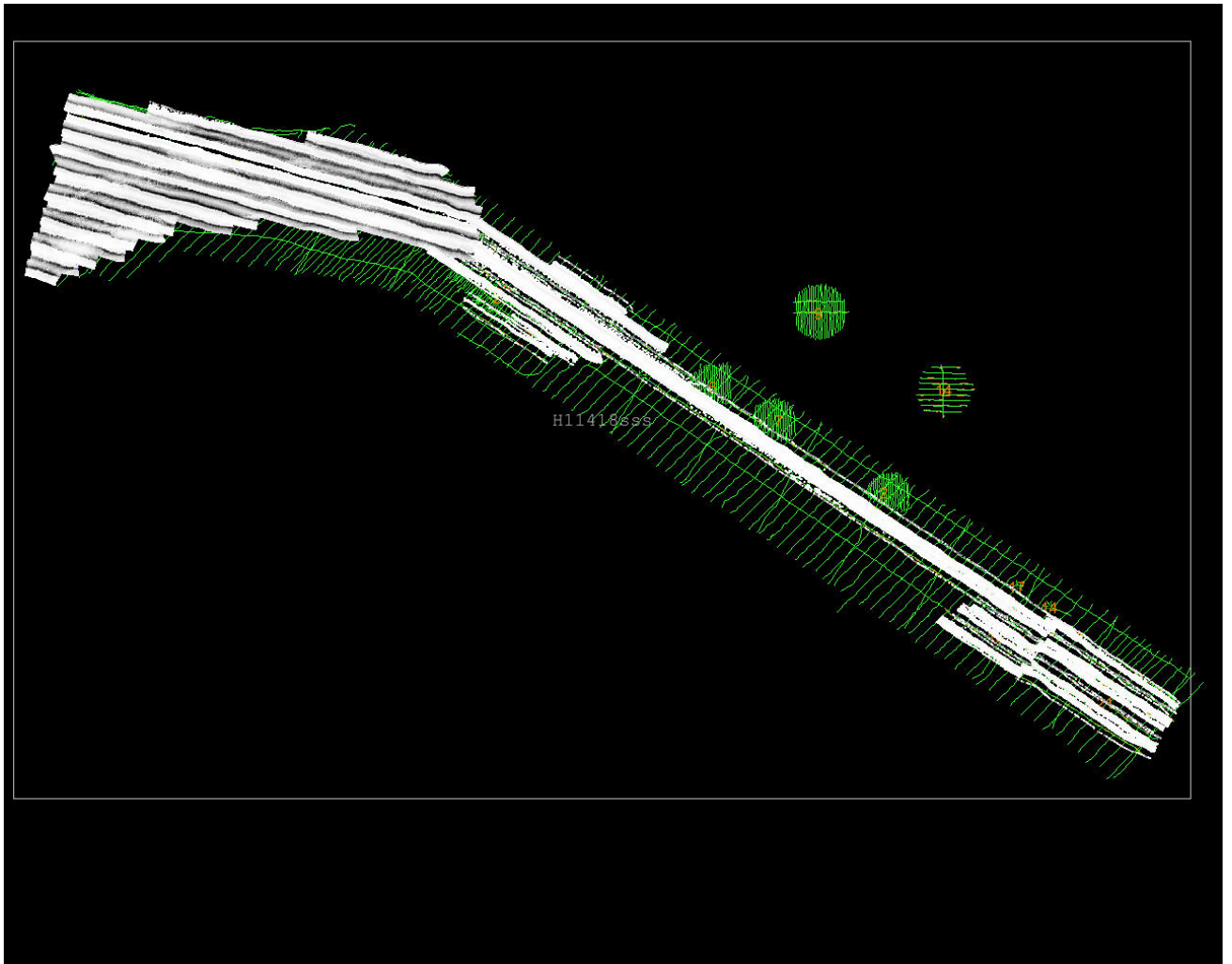
Approved: \_\_\_\_\_

**Shepard Smith**  
Lieutenant Commander, NOAA  
Chief, Atlantic Hydrographic Branch

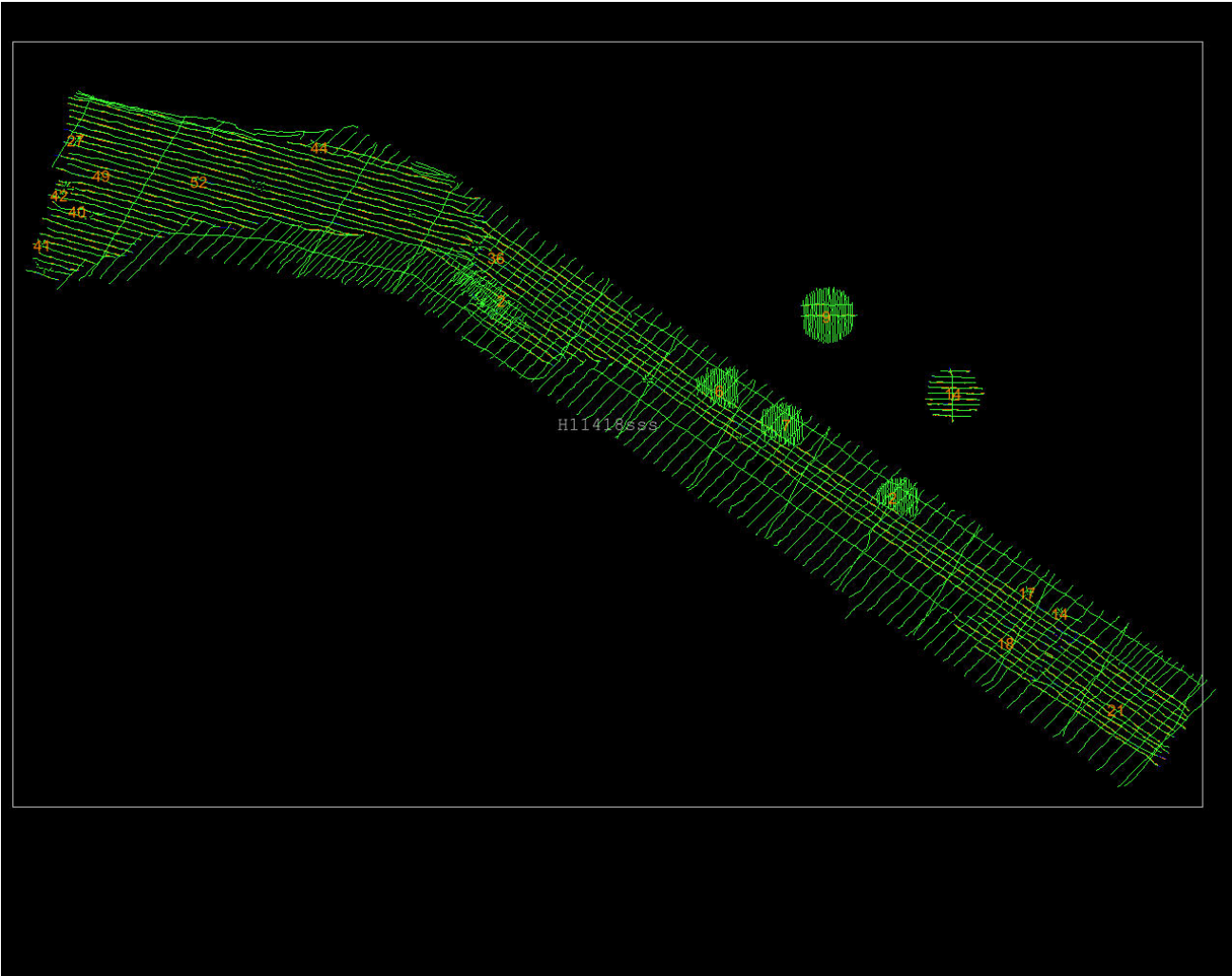
# 100% Side Scan Coverage



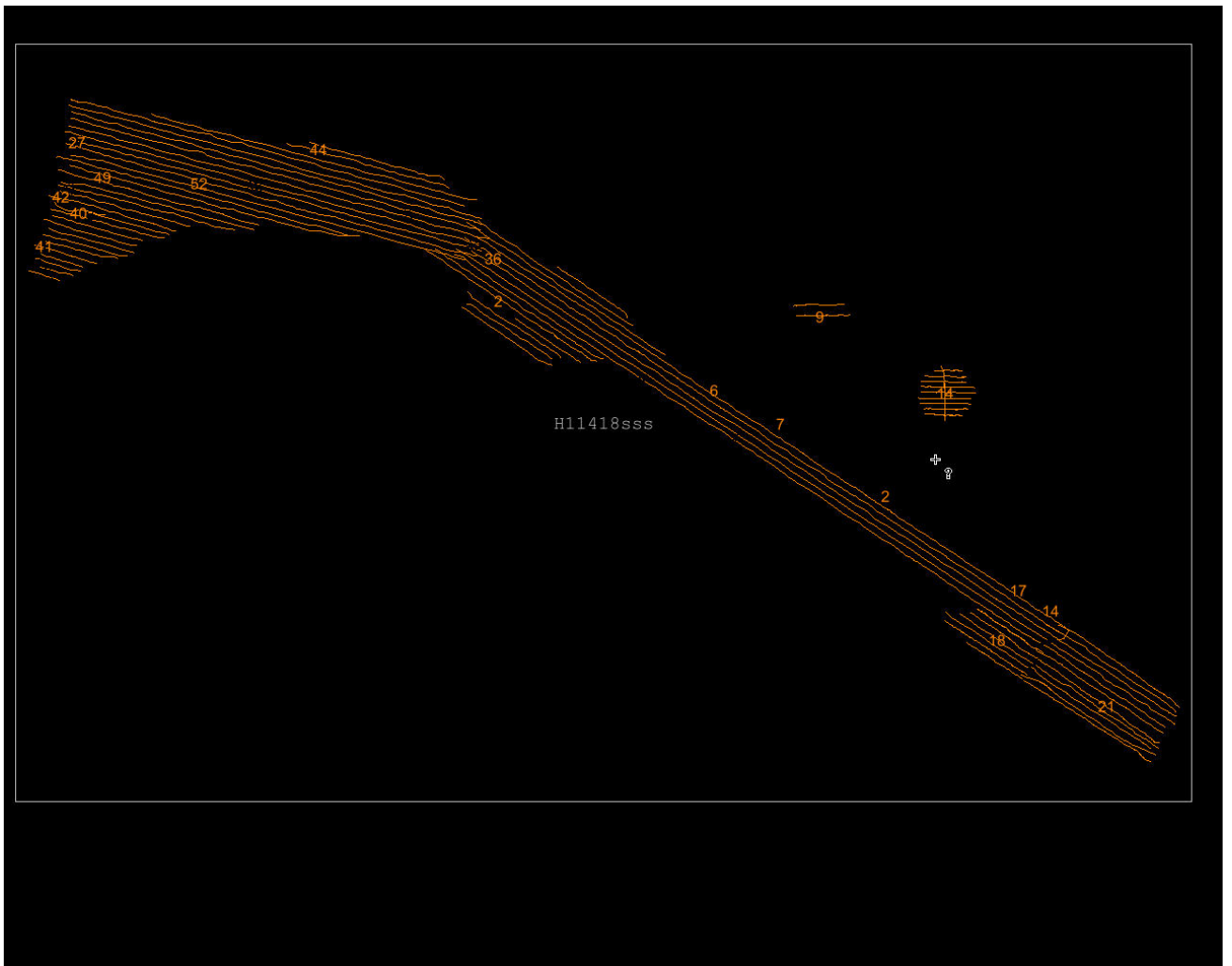
# 200% Side Scan Coverage



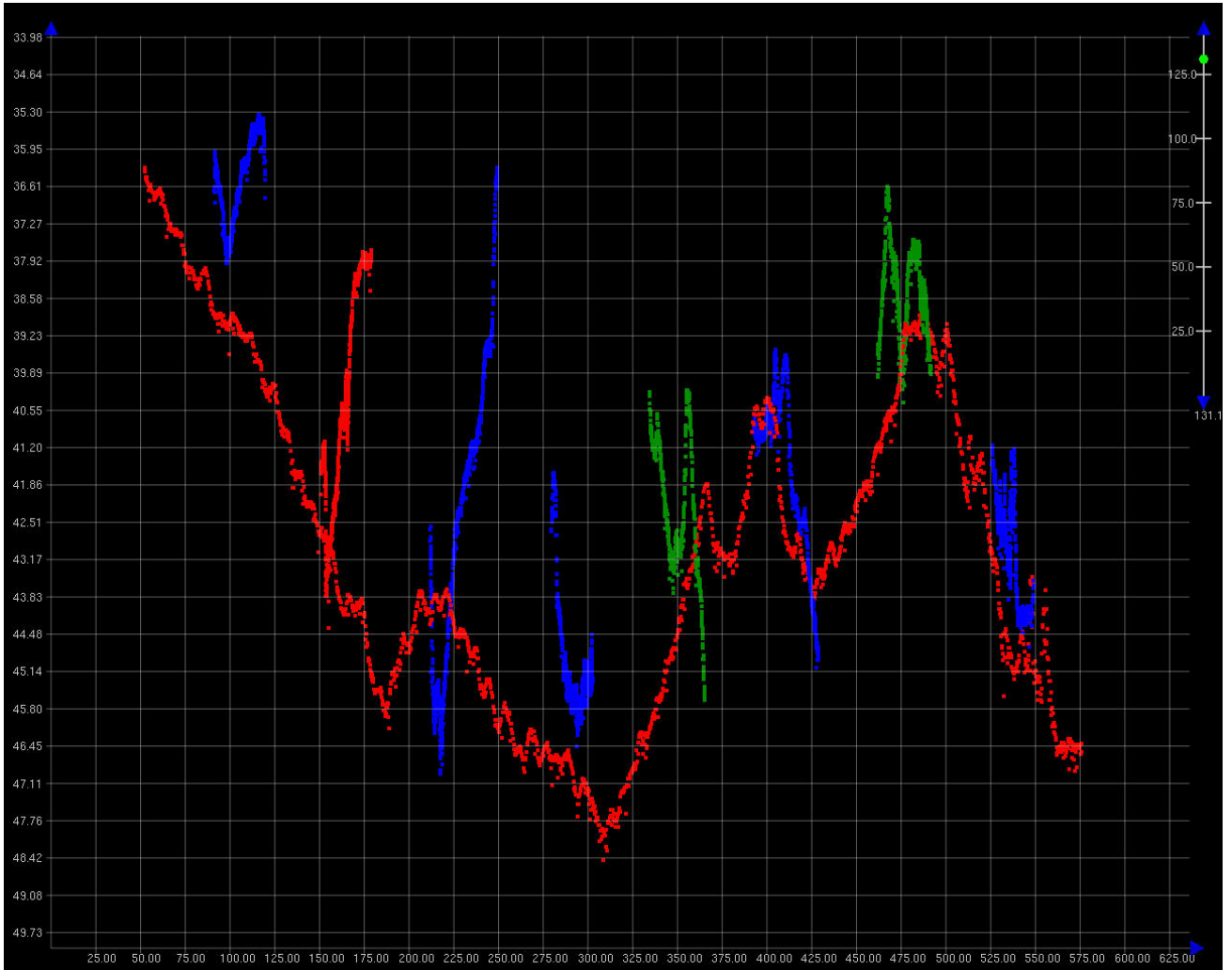
# SBES Lines Extent



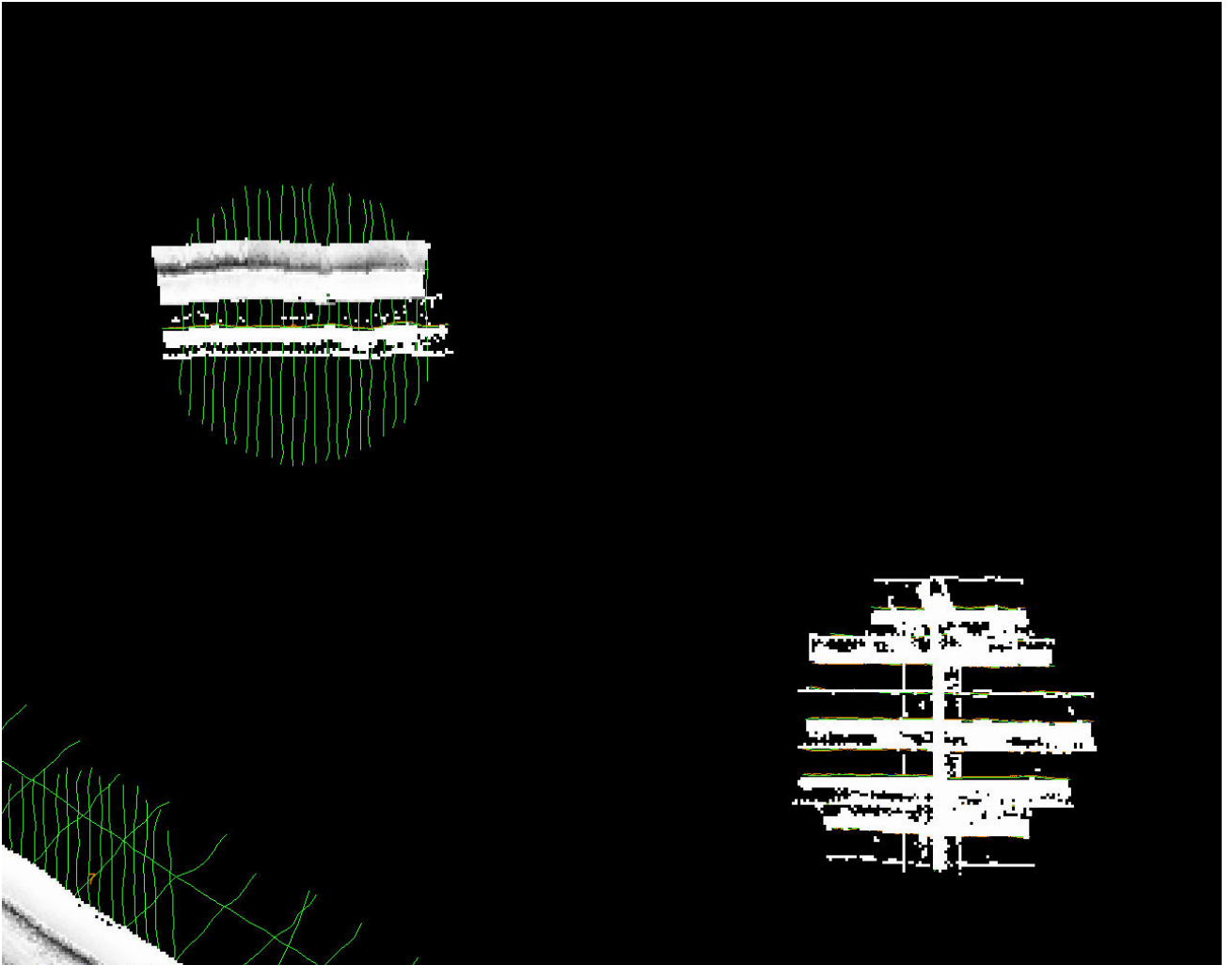
# Side Scan Lines Extent



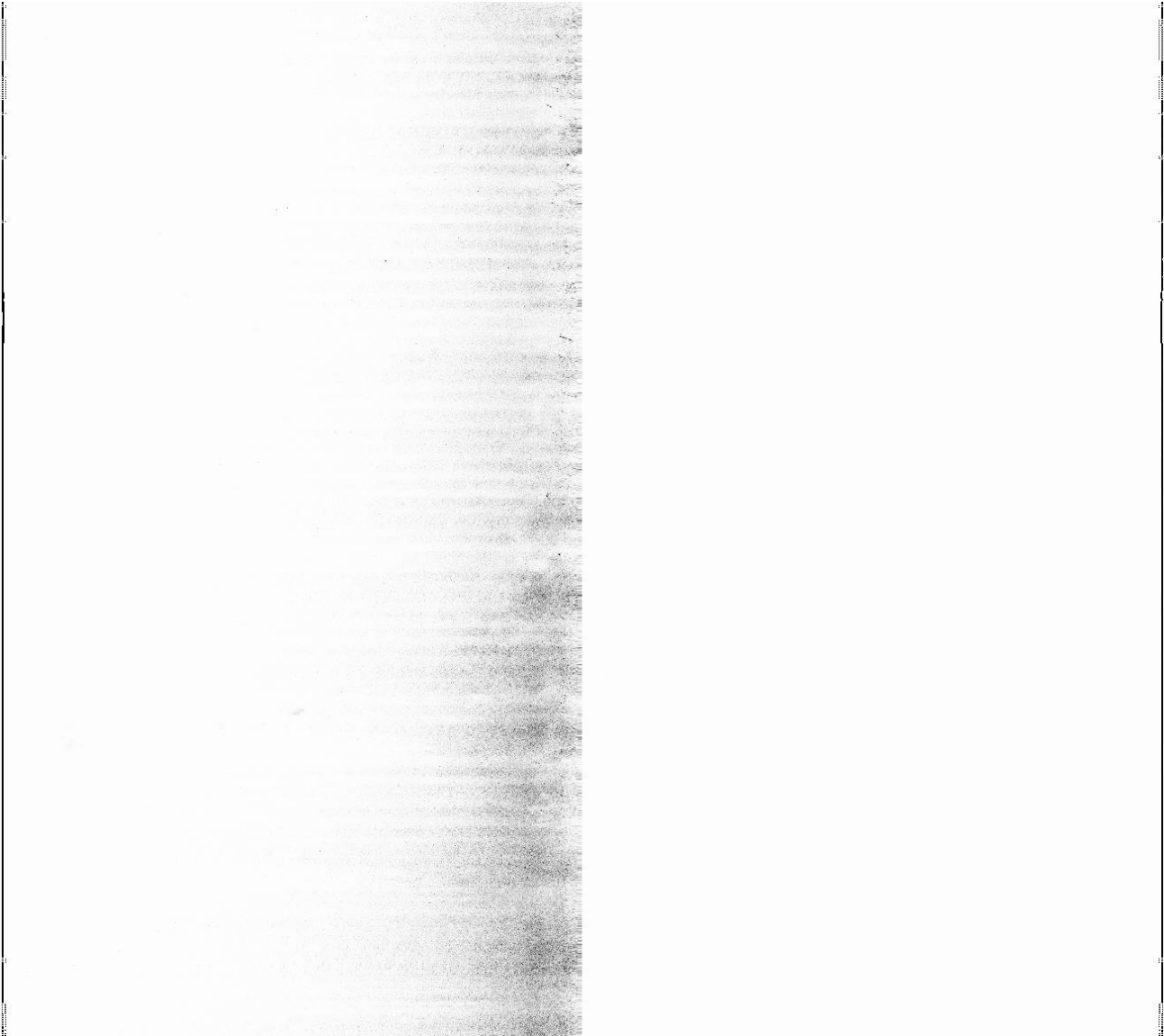
# SBES Crossline Disagreement



# Side Scan Coverage Over AWOIS Items



# Side Scan Example 1





# Side Scan Example 2

