

H10523

NOAA FORM 76-35A

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

## DESCRIPTIVE REPORT

Type of Survey . Hydrographic .....

Field No. .... AHP-10-17-93 .....

Registry No. .... H-10523 .....

### LOCALITY

State ..... Florida .....

General Locality Big Lagoon .....

Sublocality .... Fort McRee to Gulf Beach .....

19 93-94

CHIEF OF PARTY  
LCDR. J. Waddell

### LIBRARY & ARCHIVES

DATE ..... October 20, 1995 .....

**HYDROGRAPHIC TITLE SHEET**

H-10523

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

FIELD NO.

AHP-10-17-93

State Florida

General locality Big Lagoon

Locality Fort McRee to Gulf Beach

Scale 1:10,000 Date of survey Dec. 10, 1993 - March 16, 1994

Instructions dated September 25, 1992 Project No. OPR-J223-AHP

Vessel NOAA Launch 0517

Chief of party LCDR James E. Waddell, Jr., NOAA

Surveyed by Atlantic Hydrographic Party

Soundings taken by echo sounder, hand lead, pole Innerspace Model 448

Graphic record scaled by MJM, JLB, CBM

Graphic record checked by MJM, JLB, CBM

Evaluation by: R. Davies Automated plot by HP Design Jet 650C

Verification by R. Davies, I. Almacen

Soundings in ~~fathoms~~ ~~fms~~ ~~at~~ ~~MHW~~ meters & decimeters MLLW

REMARKS: Time in UTC, revisions and marginal notes in black were generated during office processing. All separates are filed with the hydrographic data, as a result page numbering may be interrupted or non-sequential.  
All depths listed in this report are referenced to mean lower low water unless otherwise noted.

AWBIS / SURF 10/23/95

mCR

1-2-97  
OCT 20 1995 DB



DESCRIPTIVE REPORT TO ACCOMPANY  
HYDROGRAPHIC SURVEY H-10523  
FIELD NO. AHP-10-17-93  
SCALE: 1:10,000  
1993-1994  
ATLANTIC HYDROGRAPHIC PARTY  
CHIEF OF PARTY: LCDR James E. Waddell, Jr.

A. PROJECT ✓

This survey was conducted in accordance with Hydrographic Project Instructions OPR-J223-AHP, Pensacola and Perdido Bays, Florida and Alabama, dated September 25, 1992; Change No. 1, dated January 4, 1993; and Change No. 2, dated October 13, 1993. This survey is designated as Sheet "D" on the revised sheet layout dated November 17, 1992.

The purpose of this project is to provide contemporary hydrography for the maintenance of existing charts. The area was last surveyed in 1935 by the U. S. Coast and Geodetic Survey using lead line methods.

B. AREA SURVEYED ✓ See Eval Rpt, section B

The area surveyed for H-10523 covers Big Lagoon from Fort McCree to Gulf Beach. The survey limits are as follows:

North -  $30^{\circ}20'15''$ N  
South -  $30^{\circ}17'20''$ N  
East -  $087^{\circ}18'45''$ W  
West -  $087^{\circ}26'00''$ W

This survey was conducted from December 10, 1993 (DN 344) to March 16, 1994 (DN 075).

C. SURVEY VESSELS ✓

Vessel 0517 (EDP No. 0517), a 21-foot MonArk, was the sounding vessel used to collect all survey data. There were no unusual vessel configurations nor problems encountered.

#### D. AUTOMATED DATA ACQUISITION AND PROCESSING ✓

The Hydrographic Data Acquisition and Processing System (HDAPS) was used to process all hydrographic data for this survey. PC-DAS version 4.03 was used for on-line data acquisition. A listing of HDAPS programs used for data processing and their corresponding version numbers are appended to this report.

The following non-HDAPS computer programs were used:

VELOCITY (IBM PC)	Ver. 2.0 (12/18/92)
NADCON (IBM PC)	Ver. 1.01
WORDPERFECT (IBM PC)	Ver. 6.0

#### E. SONAR EQUIPMENT ✓

Not Applicable.

#### F. SOUNDING EQUIPMENT ✓

An Innerspace model 448 depth sounder, serial number 187, was used to collect all soundings until January 11, 1994 (DN 011). The echo sounder failed on that date and was replaced with Innerspace model 448, serial number 241, for the remainder of the survey. *The Innerspace echo sounder operates at 208 kHz and has an 8° conical beam pattern.*

A standard lead line calibrated in meters, serial number 0517, was used during this survey for comparison readings with the echo sounder. A 5-meter wooden sounding pole, marked according to Hydrographic Survey Guideline (HSG) No. 69, was used to obtain any pole soundings.

#### G. CORRECTIONS TO SOUNDINGS See Eval Rpt, section G

Corrections for the speed of sound through water were computed from data obtained with Odom Hydrographic Systems, Inc. DIGIBAR electronic speed of sound probe serial number 154. Data quality assurance tests were performed prior to each cast in accordance with Field Procedures Manual (FPM) 2.1.3.2. Program VELOCITY, version 2.0, was used to compute speed of sound through the water corrections. Copies of the velocity tables and cast data are in the "Survey Separates."\*

\* Filed with the hydrographic data.

Correctors for the velocity of sound through water were determined from the casts listed below:

<u>Velocity Table No.</u>	<u>Cast No.</u>	<u>Deepest Depth (m)*</u>	<u>Applicable DN</u>	<u>Position</u>	<u>Cast Day</u>
1	1	12.0/15.6	-----	30°29'00"N 087°26'00"W	343
2	2	4.0/4.2	001-018	30°17'30"N 087°31'00"W	11
3	3	5.0/6.5	019-039	30°18'46"N 087°24'25"W	025
4	4	5.4/7.0	-----	30°18'50"N 087°25'30"W	033
-	5	5.4/7.1	040-075	30°18'50"N 087°25'30"W	046
-	6	5.2/6.7	-----	30°18'50"N 087°25'30"W	066
-	7	4.3/5.5	-----	30°18'50"N 087°25'30"W	074

\*Actual/Extended

Note: Because the correctors from casts five, six, and seven were determined to be zero, no tables were generated. Cast one values closely agreed with cast two as did cast four agree with cast three. Because of this agreement, casts one and four were not used. *Casts 1 and 2 plot outside the survey area.*

Weather permitting, lead line comparisons were conducted each day in accordance with FPM 2.1.3.1. No instrument error was detected from these comparisons. The lead line comparison form is included in the "Survey Separates."\*

A static draft of 0.3 meter was applied to the on-line data. The draft was measured by subtracting the difference from a punch mark on the side of Launch 0517, 0.6 meters above the transducer, to the water surface.

Settlement and squat measurements were performed on May 15, 1992 (DN 136), at Shalimar, Florida, using Zeiss level S/N 08754. Settlement and squat correctors and the static draft corrector were applied on-line through the offset table. Copies of the field data, the graphs of the settlement and squat correctors vs. speed, and the offset table are included in the "Survey Separates."\*

The Pensacola, Florida tide station number 872-9840, served as control for datum determination. This station is also the reference station for the predicted tides which were applied to the final field sheet. This survey required a -0 hr 45 min. time corrector and a 0.80 range ratio be applied to the predicted tides for both high and low water.

\* Filed with the hydrographic data

The final sounding plot was plotted after reapplying the correctors to each data record using the HDAPS program REAPPLY.

Approved tides were requested from the Sea and Lake Levels Branch, N/OES231, in a letter dated March 23, 1994. A copy of the letter is appended to this report. \* *Approved Tide Note dated July 6, 1994 is attached.*

#### H. CONTROL STATIONS ✓ *See Eval Rpt, section H*

The horizontal control datum for this project is the North American Datum of 1983. One station, EDEN 1993, was used to control this survey. A copy of the Control Station List is appended to this report.

The Atlantic Hydrographic Party used the Global Positioning System (GPS) to establish horizontal control for this project. The horizontal control report for stations established in the Perdido Bay area was written and submitted by AHP in November 1993 to N/CG2333.

#### I. HYDROGRAPHIC POSITION CONTROL *See Eval Rpt, section I*

Differential GPS was used as the method of positioning for all hydrographic data on this survey. An Ashtech model XII receiver, serial number 700157E1075, was used for the reference station. An Ashtech sensor, serial number 700417A1065 was used as the remote station on vessel 0517. Maxon VHF radios, using frequency 170.200 MHz, were used as the data link between reference and remote stations. This equipment meets the standards for a 1:10,000 scale hydrographic survey.

Program MONITOR was run for 24 hours on November 30, 1993 to test the reference site for multi-path. The GPS availability at this site was determined to be 100% from this test. A copy of the "Plot of Radial Error in Position" and the "Outlier.Sum File" are included in the "Survey Separates." \*

Performance checks were conducted daily by resting the launch alongside station CAL1 1993. The raw record and the abstract of these checks are included in the "Survey Separates." \* AHP located this station with GPS to third-order, class I standards. The data was included in the Horizontal Control Report.

Hydrographic operations ceased whenever the horizontal dilution of precision (HDOP) exceeded 3.8. This was calculated in accordance with FPM 3.4.2. High HDOP values occurred during periods of poor satellite geometry. *Data was analyzed during office processing and found to contain no significant errors.*

Occasionally, a good position misplotted on the raw track plot. This problem was attributed to good DGPS data following a period of questionable DGPS data. These positions were reviewed, then edited or rejected as necessary. *Data was analyzed during office processing and found to contain no significant errors.*

\* Filed with the hydrographic data.

J. SHORELINE *Also see Eum Report, section J.*

Shoreline shown on the final field sheet was transferred by hand from Cartographic Revision Survey (CRS) 149965. This document consolidates recent photogrammetric data with TP-00543. This manuscript was compiled using NAD 1927 at 1:20,000 scale and enlarged to 1:10,000. The only shoreline detail changes noted from the CRS blueprints was the addition of piers. Shoreline verification was conducted by comparing mainscheme hydrography that junctioned at shore, detached positions, or by visual inspection. Existing piers which agreed with the shoreline manuscript were given reference numbers, while piers not shown were located by detached positions.

**Recommendation:** The hydrographer recommends that details seaward of the HWL from this survey be used to supersede TP-00540 and CRS-003392 in the common area. *Concur*

The following features were identified on this survey and did not appear on TP-00540 or CRS-003392:

<u>Position</u>	<u>Latitude(N)</u>	<u>Longitude(W)</u>	<u>Description on Smooth sheet</u>
53	30°19'33.70"	087°22'03.88"	Wood Pier (Drawn in red)
86	30°18'29.38"	087°25'22.91"	Wood Pier (Drawn in red)
87	30°18'35.85"	087°25'21.31"	Wood Pier (Drawn in red)
117	30°18'42.30"	087°25'32.34"	Boat Ramp w/slips -(ramps)
118	30°18'43.46"	087°25'34.02"	Wood Pier (Drawn in red)
119	30°18'43.66"	087°25'34.92"	Wood Pier (Drawn in red)
120	30°18'42.89"	087°25'34.89"	Cable X-ing sign marker, (sign, subm cable)
121	30°18'47.50"	087°25'32.71"	Cable X-ing sign marker (sign, subm cable)
122	30°18'47.17"	087°25'33.17"	3 Piers w/lift (Drawn in red)
123	30°18'47.44"	087°25'35.73"	Bridge Ruins -(ruins)
124	30°18'48.04"	087°25'36.73"	Wood Pier (Drawn in red)
125	30°18'48.60"	087°25'37.98"	Wood Pier (Drawn in red)

Visual searches were conducted for pier ruins shown on the CRS at 30°19'26.84"N, 087°22'36.751"W, and 30°19'35.18"N, 087°22'03.52"W. Nothing was found. Detached positions 56 and 90 were taken in the center of the search areas. Photographs of the new features are in the "Survey Separates."\*The "DP editor", which contains a complete list of all detached positions by day, is appended to this report. It lists the position and description of each feature.

**Recommendation:** The hydrographer recommends that shoreline from the Cartographic Revision Surveys as updated by this survey be used to supersede charted shoreline. *Concur*

\* Filed in the hydrographic data.



K. CROSSLINES ✓

A total of 17.5 nautical miles of crosslines were run, representing 29.0% of the mainscheme hydrography. Crossline soundings agree to within 0.5 meter of the mainscheme soundings.

L. JUNCTIONS See Ennc Report, section L

This survey junctions with H-10528 to the West, a 1:10,000 scale survey, to be completed as part of this project. Since this survey and H-10528 will be conducted with the same vessel in the same year, no sounding overlap is required. Soundings at the junction of the two surveys agree within 0.3 meter.

M. COMPARISON WITH PRIOR SURVEYS See Ennc Report, section M

The prior survey comparison will be performed by Pacific Hydrographic Section. The prior survey covering this area is H-5669, 1:20,000, 1935.

N. ITEM INVESTIGATION REPORTS

Eleven AWOIS items, numbers 8443, 8445, 8446, 8447, 8448, 8522, 8523, 8524, 8525, 8773 and 8786 were investigated as part of this survey. Item 8446 is the only item which originates from prior survey H-5669. Items 8523, 8524, and 8525 were all addressed on the same Item Investigation Report. All item reports are appended.

O. COMPARISON WITH THE CHART See Ennc Report, section O

Comparisons were made with Chart No. 11378, 26th Edition, Sept. 5, 1992.

One danger to navigation was identified during this survey. An uncharted <sup>1.0</sup>0.7-meter shoal was located in the vicinity of <sup>30°18'50.8" N, 087°23'10.6" W</sup>30°18'50" N, 087°23'10" W. Main scheme hydrography was split to 50-meter line spacing over the shoal, and a least depth of <sup>1.0</sup>0.7 meters was found. Another <sup>1.0</sup>1.0-meter shoal was located approximately 100 meters SW at <sup>30°18'50.8" N, 087°23'25.1" W</sup>30°18'50" N, 087°23'25" W. These <sup>(1.0) 2.0</sup>two shoals were reported in a letter forwarded to the Commander, Eighth U.S. Coast Guard District. A copy of the letter is appended to this report. A revised danger to navigation was submitted, for the two mentioned shoals, during office processing.

Current soundings compared within 0.5 meter of those charted.

Discrepancies with the chart are as follows:

Two islands charted in the vicinity of 30°19'40"N, 087°19'42"W, no longer exist. Main scheme hydrography was split to 50-meter line spacing in this area, and least depths of 0.4<sup>6</sup> meter were found over the charted islands.

**Recommendation:** Remove the two islands from the chart and show representative soundings in this area. *concur*

Two islands charted in the vicinity of 30°19'50"N, 087°19'45"W, were not found during main scheme hydrography. Current survey depths in this area are between 0.4<sup>9</sup> and 3.8<sup>6</sup> meters.

**Recommendation:** Delete the charted islands and show representative soundings in this area. *concur*

Four small islands charted in the vicinity of 30°19'20"N, 087°19'35"W, were not located during main scheme hydrography. Current survey depths in the area of the charted islands were between 0.4<sup>5</sup> and 2.4<sup>7</sup> meters.

**Recommendation:** Delete the charted islands and show representative soundings in this area. *concur*

A charted shoal that uncovers at 30°19'15"N, 087°19'31"W, was developed to 50-meter line spacing and a least depth of 0.3<sup>5</sup> meters was found.

**Recommendation:** Chart representative soundings in this area. *concur*

Two spoil area notes, one located at 30°19'35"N, 087°19'30"W, and the other at 30°18'32"N, 087°24'30"W, were not developed. Discussions with Mr. Jim Walker of the U.S. Army Corps of Engineers, phone (205) 690-3319, revealed that these areas are still considered active.

**Recommendation:** The spoil areas should remain as charted. *concur*

A "Piles" note charted in the vicinity of 30°19'15"N, 087°19'15"W, was investigated on DN 063 and detached position number 946 was taken on the center of three, 0.3 meter diameter piles. The piles lie about 2 meters apart. A photograph was taken of the piles and is included in the "Survey Separates." \*

**Recommendation:** The hydrographer recommends sounding data from this survey be used to update the chart. *Also chart piles at the above location and remove current charted piles* *concur*

#### P. ADEQUACY OF SURVEY

This survey is complete and adequate to supersede all prior surveys within the common area.

*Do not concur*  
*See Euse Report, section*  
*P.*

\* Filed with the hydrographic data

## Q. AIDS TO NAVIGATION

There are thirty-three aids to navigation in the survey area. Ten are lights, six are daybeacons with radar reflectors, and seventeen are buoys. Eight of the aids have a published position in the U.S.C.G Light List, Volume IV, Gulf Of Mexico, 1993. (1995 L.L.#)

Detached positions were taken on all aids to navigation. A comparison of the surveyed position with the charted location follows:

### Caucus Channel Range Front Light (Light List #4085) (# 3930)

Light List Published Position	30° 19.9' N	087° 18.9' W
Surveyed Position (No. 41)	30° 19' 51.24"N	087° 18' 50.80"W

Surveyed position is 100 meters SSE of charted position

### Caucus Channel Range Rear Light (Light List #4090) (# 3935)

Light List Published Position	Not Listed	
Surveyed Position (No. 42)	30°20'12.51"N	087°18'58.86"W

Surveyed position agrees with charted position

### Navy Range Front Light (Light List #4230-31130) (#4075-31570)

Light List Published Position	30°20.2'N	087°19.0'W
Surveyed Position (No. 43)	30°20'04.62"N	087°18'58.70"W

Surveyed position agrees with charted position

### Intracoastal Waterway Buoy 5 (Light List #31180) (# 31620)

Light List Published Position	30°20.0'N	087°19.6'W
Surveyed Position (No. 45)	30°19'57.21"N	087°19'03.72"W

Surveyed position agrees with charted position

### Intracoastal Waterway Buoy 5A (Not in Light List)

Light List Published Position	None	
Surveyed Position (No. 47)	30°19'53.78"N	087°19'19.89"W

Not Charted

### Intracoastal Waterway Buoy 6 (Light List #31185) (#31625)

Light List Published Position	None	
Surveyed Position (No. 44)	30°20'01.39"W	087°19'02.86"W

Surveyed position agrees with charted position

Intracoastal Waterway Buoy 6A (Not in Light List)

Light List Published Position      None  
Surveyed Position (No. 46)      30°19'57.47"N    087°19'13.13"W  
Not Charted

Intracoastal Waterway Buoy 6B (Light List #31190) (#31630)

Light List Published Position      30°19.9'N      087°23.8'W  
Surveyed Position (No. 48)      30°19'53.05"N    087°19'26.33"W  
Not Charted

Intracoastal Waterway Buoy 7 (Light List #31195) (#31685)

Light List Published Position      None  
Surveyed Position (No. 49)      30°19'48.14"N    087°19'34.58"W  
Surveyed position agrees with charted position

Intracoastal Waterway Buoy 6C (Not in Light List)

Light List Published Position      None  
Surveyed Position (No. 50)      30°19'50.42"N    087°19'40.22"W  
Not Charted

Intracoastal Waterway Buoy 6D (Not in Light List)

Light List Published Position      None  
Surveyed Position (No. 51)      30°19'49.36"N    087°19'47.66"W  
Not Charted

Intracoastal Waterway Light 10 (Light List #31200) (#31690)

Light List Published Position      30°19.4'N      087°21.1"W  
Surveyed Position (No. 52)      30°19'26.83"N    087°21'06.05"W  
Surveyed position agrees with charted position

Intracoastal Waterway Buoy 11 (Light List #31205) (#31695)

Light List Published Position      None  
Surveyed Position (No. 57)      30°19'03.44"    087°23'18.56"W  
Surveyed position is 170 meters NE of charted position

Intracoastal Waterway Light 12 (Light List #31210) (#31700)

Light List Published Position None  
Surveyed Position (No. 66) 30°19'09.17"N 087°23'30.30"W  
Surveyed position is 200 meters NNE of charted position

Intracoastal Waterway Light 13 (Light List #31215) (# 31705)

Light List Published Position None  
Surveyed Position (No. 67) 30°18'47.97"N 087°23'27.97"W  
Surveyed position is 50 meters SE of charted position

Intracoastal Waterway Daybeacon 15 (Light List #31220) (# 31710)

Light List Published Position None  
Surveyed Position (No. 68) 30°18'28.84"N 087°23'32.25"W  
Surveyed position agrees with charted position

Intracoastal Waterway Light 16 (Light List #31225) (# 31715)

Light List Published Position None  
Surveyed Position (No. 69) 30°18'32.53"N 087°23'41.79"W  
Surveyed position agrees with charted position

Intracoastal Waterway Daybeacon 17 (Light List #31230) (# 31720)

Light List Published Position None  
Surveyed Position (No. 71) 30°18'20.32"N 087°23'49.39"W  
Surveyed position agrees with charted position

Intracoastal Waterway Buoy 17A (Not in Light List)

Light List Published Position None  
Surveyed Position (No. 72) 30°18'20.60"N 087°23'58.71"W  
Not Charted

Intracoastal Waterway Light 18 (Light List #31235) (# 31725)

Light List Published Position 30°18.6'N 087°23.8'W  
Surveyed Position (No. 70) 30°18'25.31"N 087°23'49.95"W  
Surveyed position agrees with charted position

Intracoastal Waterway Buoy 19 (Light List #31240) (# 31730)

Light List Published Position None  
Surveyed Position (No. 73) 30°18'20.20"N 087°24'08.70"W  
Surveyed position agrees with charted position

Intracoastal Waterway Buoy 20 (Light List #31245) (# 31735)

Light List Published Position None  
Surveyed Position (No. 74) 30°18'23.51"N 087°24'07.04"W  
Surveyed position agrees with charted position

Intracoastal Waterway Buoy 21 (Light List #31250) (# 31740)

Light List Published Position 30°18.3'N 087°24.4"  
Surveyed Position (No.76) 30°18'18"21.49"N 087°24'21.59"W  
Surveyed position agrees with charted position

Intracoastal Waterway Buoy 21A (Light List #31255) (# 31745)

Light List Published Position 30°18.4'N 087°24.5"W  
Surveyed Position (No. 77) 30°18'21.26"N 087°24'27.43"W  
Not Charted

Intracoastal Waterway Daybeacon 22 (Light List #31260) (# 31750)

Light List Published Position None  
Surveyed Position (No. 75) 30°18'23.89"N 087°24'20.93"W  
Surveyed position agrees with charted position

Intracoastal Waterway Buoy 23 (Light List #31265) (# 31755)

Light List Published Position None  
Surveyed Position (No. 78) 30°18'21.65"N 087°24'34.54"W  
Surveyed position agrees with charted position

Intracoastal Waterway Buoy 24 (Light List #31270) (# 31760)

Light List Published Position None  
Surveyed Position (No.79) 30°18'24.76"N 087°24'36.37"W  
Survey position is 50 meters S of charted position

Intracoastal Waterway Light 25 (Light List #31275) (# 31765)

Light List Published Position None  
Surveyed Position (No. 81) 30°18'21.89"N 087°24'49.93"W  
Survey position is 50 meters N of charted position

Intracoastal Waterway Daybeacon 26 (Light List #31280) (# 31770)

Light List Published Position None  
Surveyed Position (No. 80) 30°18'25.50"N 087°24'48.84"W  
Survey position agrees with charted position

Intracoastal Waterway Buoy 28 (Light List #31285) (# 31775)

Light List Published Position None  
Surveyed Position (No. 82) 30°18'30.88"N 087°25'01.31"W  
Survey position is 70 meters NW of charted position

Intracoastal Waterway Buoy 29 (Light List #31290) (# 31780)

Light List Published Position None  
Surveyed Position (No. 83) 30°18'31.75"N 087°25'08.60"W  
Survey position agrees with charted position

Intracoastal Waterway Daybeacon 30 (Light List #31295) (# 31785)

Light List Published Position None  
Surveyed Position (No. 85) 30°18'37.24"N 087°25'12.07"W  
Survey position agrees with charted position

Intracoastal Waterway Daybeacon 31 (Light List # 31300) (# 31790)

Light List Published Position None  
Surveyed Position (No. 88) 30°18'39.61"N 087°25'24.33"W  
Survey position agrees with charted position

The U.S.C.G.'s positioning techniques, which use sextants and depth sounders to locate NAVAIDS, explain the differences found. All of the aids serve their intended purpose though should be re-charted <sup>or charted</sup> using current surveyed positions. *Concur*

No landmarks, pipelines, nor ferry routes exist within the survey area. Two charted landmarks exist within the survey area and were not addressed by the hydrographer. See Eval Rpt, Section Q.  
All bridge and overhead cable clearances appeared accurate as charted. *Concur*

R. STATISTICS ✓

<u>Description</u>	<u>Quantity</u>
Total Number of Positions	978
Total Lineal Nautical Miles of Hydrography	63.0
Square Nautical Miles of Hydrography	3.5
Days of Production	13
Detached Positions	62
Bottom Samples	19
Tide Stations	1
Velocity Casts	5

S. MISCELLANEOUS

No anomalous currents or tides were observed during this survey.

Forty bottom samples were taken and submitted to the Smithsonian Institution in accordance with the project instructions. Bottom sample positions are plotted on the overlay and are listed on the Oceanographic Log Sheet-M, NOAA Form 75-44, which is included in the "Survey Separates." \*

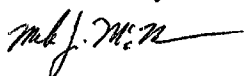
T. RECOMMENDATIONS

No inadequacies in this survey, planned construction, nor future dredging were identified.

U. REFERRAL TO REPORTS ✓

<u>Title</u>	<u>Transmittal Information</u>
Horizontal Control Report for OPR-J223-AHP	November 1993: N/CG2333 Seattle, WA
Coast Pilot for OPR-J223-AHP	May 1994: N/CG244 Norfolk, VA
User Evaluation for OPR-J223-AHP	March 1994: N/CG244 Norfolk, VA

Submitted by:



Mark J. McMann - Launch Hydrographer-in charge

\* Filed with the hydrographic data



AWOIS NO: 8443 ✓

Item Description: UNKNOWN

Source: CL1810/76;CAS, OPR-511-PE

AWOIS Position: Lat - 30° 19' 41.42"N, Lon - 87° 19' 15.40"W

Required Investigation: VS

Charts Affected: 11378, 11383

INVESTIGATION

Date(s)/DN(s): 1-12-94 / 012 (OPR-J233-AHP2, H-10523)

Position Numbers: 92-94                      Launch Number: 0517

Investigation Used: Bottom Drag

Position Determined By: Ashtech Ranger XII DGPS

Investigation Summary: A bottom drag was begun at Pos. 92 and a snag was encountered on the first line. The wreckage was visible and a least depth of 0.8<sup>6</sup>meter was taken on the highest point with the sounding pole at detached position #94. Scattered wreckage was visible in the immediate area, with most of the debris nearly flush with the bottom.

CHARTING RECOMMENDATION

The Hydrographer recommends charting a submerged wreck at the position located above.

*Concur*

Recommended Position: Lat - 30° 19' 41.19"N, Lon - 87° 19' 15.80"W

Recommended Least Depth: 0.8<sup>6</sup> meter

\*\*\*\*\*

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 8445 ✓

Item Description: OBSTRUCTION

Source: LNM21/76--8TH CGD, 5/25/76

AWOIS Position: Lat - 30° 19' 50.01"N, Lon - 87° 19' 30.50"W

Required Investigation: VS,BD

Charts Affected: 11378,11383

INVESTIGATION

Date(s)/DN(s): 1-12-94 / 012 (OPR-J233-AHP2, H-10523)

Position Numbers: 91                      Launch Number: 0517

Investigation Used: Visual Search

Position Determined By: Ashtech Ranger XII DGPS

Investigation Summary: Pos. 1570 was taken on shore with a range and bearing to three large pyramid shaped concrete blocks. These blocks are slightly below the high water line, but are well above the limits of navigation. Discussions with the U.S. Coast Guard regarding these blocks indicate they were never awash as indicated by the AWOIS report. The blocks are approximately 3 meters high.

CHARTING RECOMMENDATION

The Hydrographer recommends charting the <sup>obstruction</sup> piles as located <sup>on this survey.</sup> and ~~removing the stakes reported notes from the chart.~~ <sub>concur</sub>

Recommended Position: Lat - 30° 19' 49.42"N, Lon - 87° 19' 30.56"W

Recommended Least Depth:-3.0 meters

\*\*\*\*\*

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 8446<sup>✓</sup>

Item Description: OBSTRUCTION

Source: H-5669/34-35

AWOIS Position: Lat - 30° 18' 54.92"N, Lon - 87° 23' 22.11"W

Required Investigation: VS,BD

Charts Affected: 11378

INVESTIGATION

Date(s)/DN(s): 1-12-94 / 012 (OPR-J233-AHP2, H-10523)

Position Numbers: 95-116                      Launch Number: 0517

Investigation Used: Bottom Drag

Position Determined By: Ashtech Ranger XII DGPS

Investigation Summary: A 50 meter radius chain drag was conducted at 10 meter line spacing using 40 feet of line and 60 feet of chain. Nothing was found. A page sized plot of the trackline of this drag is included in the appendix\* of the descriptive report.

\* Filed with the hydrographic data.

CHARTING RECOMMENDATION

The Hydrographer recommends removing the submerged pile from the chart. There is a depth of 1 meter (3.2 ft) 100 meter to the S.E of the reported obstruction. *Current* A danger to navigation was submitted to the U.S. Coast Guard. Chart 3 ft sounding and representative depths from smooth sheet.

Recommended Position: None

Recommended Least Depth: None

\*\*\*\*\*

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 8447 ✓

Item Description: SOUNDING

Source: UNKNOWN, CL1275/81

AWOIS Position: Lat - 30° 18' 42.00"N, Lon - 87° 23' 23.30"W

Required Investigation: ES

Charts Affected: 11378

INVESTIGATION

Date(s)/DN(s): 2-16-94 / 047 (OPR-J233-AHP2, H-10523)

Position Numbers: 919-940

Launch Number: 0517

Investigation Used: Echo Sounder

Position Determined By: Ashtech Ranger XII DGPS

Investigation Summary: A 50 meter echo sounder investigation was conducted at 10 meter line spacing and no evidence of shoaling was found. However, significant shoaling was discovered during main scheme hydrography in the vicinity of 30°18'50", 087°23'17", which is approximately 250 meters NE of the AWOIS location. This area of shoaling was developed to 50 meter line spacing and a least depth of 0.7 meter was found. A page sized plot of the soundings taken during this investigation are is included in the appendix of the descriptive report.

\* Filed with the hydrographic data.

CHARTING RECOMMENDATION

The Hydrographer recommends removing the "Shoaling to 6 ft reported 1981" note from the chart and charting current survey soundings in the area. *Revised danger to navigation letter was reported to the USCG during office processing. Concur*  
3-6 ft soundings exist just northeast and southeast of Pensacola-Mobile light 13.

Recommended Position: 30°18'<sup>53.8 N</sup>50", 087°23'<sup>17.6</sup>40 W

Recommended Least Depth: <sup>1.0</sup>0.7 meter

\*\*\*\*\*

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 8448 ✓

Item Description: OBSTRUCTION

Source: LMN29/87--8TH CGD, 7/22/87

AWOIS Position: Lat - 30° 18' 22.72"N, Lon - 87° 23' 31.91"W

Required Investigation: VS,BD

Charts Affected: 11378

-----  
INVESTIGATION

Date(s)/DN(s): 3-04-94 / 063 (OPR-J233-AHP2, H-10523)

Position Numbers: 947-978                      Launch Number: 0517

Investigation Used: Bottom Drag, Visual Search

Position Determined By: Ashtech Ranger XII DGPS

Investigation Summary: A 75 meter radius chain drag was conducted at 10 meter line spacing using 40 feet of line and 60 feet of chain. Nothing was found. Due to shallow water depths on the southeast corner of the search radius, a visual search was conducted where bottom drag was impossible. Nothing was found. A page sized plot of the trackline of this drag is included in the appendix\* of the descriptive report.  
\* Filed with the hydrographic data.

-----  
CHARTING RECOMMENDATION

The Hydrographer recommends removing the obstruction from the chart. *Amour*

Recommended Position: None

Recommended Least Depth: None

\*\*\*\*\*

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 8522 ✓

Item Description: OBSTRUCTION (Not shown on current editions of Charts 11378, 11383)

Source: LNM26/92--6/23/92, 8TH CGD

AWOIS Position: Lat - 30° 19' 55.70"N, Lon - 87° 19' 16.90"W

Required Investigation: ES

Charts Affected: 11378, 11383

INVESTIGATION

Date(s)/DN(s): 2-16-94 / 047 (OPR-J233-AHP2, H-10523)

Position Numbers: 897-918                      Launch Number: 0517

Investigation Used: Echo sounder

Position Determined By: Ashtech Ranger XII DGPS

Investigation Summary: A 50 meter radius echo sounder investigation was conducted at 10 meter line spacing. No indication of shoaling was found in the channel. A page sized plot of this development is included in the appendices to the descriptive report.

CHARTING RECOMMENDATION

The Hydrographer recommends removing the "Shoal PA" note from the chart and charting current survey soundings in the area. *Comur*

Recommended Position: None

Recommended Least Depth: None

\*\*\*\*\*

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 8523,8524,8525

AWOIS NO: 8523,8524,8525 ✓

Item Description: OBSTRUCTIONS ✓

Source: #8523 LNM28/92--7/7/92, 8TH CGD  
#8524 LNM28/91--7/9/91, 8TH CGD  
#8525 CL112/90--USPS

**AWOIS Position:**

AWOIS #8523 - 30° 19' 51.20"N, 087° 19' 29.90"W (Shoaling up to 0.6m (2.0 ft))  
AWOIS #8524 - 30° 19' 51.20"N, 087° 19' 35.90"W (Shoaling up to 1.1m (3.6 ft))  
AWOIS #8525 - 30° 19' 50.00"N, 087° 19' 35.00"W (Shoaling up to 1.1m (3.6 ft))

Required Investigation: ES

Charts Affected: 11378, 11383

-----  
**INVESTIGATION**

Date(s)/DN(s): 2-16-94 / 047 (OPR-J233-AHP2, H-10523)

Position Numbers: 849-874                      Launch Number: 0517

Investigation Used: Echo sounder

Position Determined By: Ashtech Ranger XII DGPS

Investigation Summary: An echo sounder investigation was conducted at 10 meter line spacing across the Intracoastal Waterway in the area of these three items. No indication of shoaling was found in the channel. A page sized plot of this development is included in the appendices to the descriptive report.

-----  
**CHARTING RECOMMENDATION**

The Hydrographer recommends removing the "Shl rep 1989", "Shl rep 1991", and "Shl rep 1992" notes from the chart and charting current survey soundings in the area. A channel with a controlling depth *CONCUR* of 7 feet was found by this survey. A depth of 0.6 meters (2ft) and 1.1 meters (3ft) was found at the entrance to Sherman Cove on the east and west edges of the channel.  
Recommended Position: None

Recommended Least Depth: None

\*\*\*\*\*  
**COMPILATION NOTES**

Chart

Applied As

AWOIS NO: 8773 ✓

Item Description: OBSTRUCTION (Not on current edition of Chart 11378 (274ED))

Source: BP169162--1965

AWOIS Position: Lat - 30° 19' 41.00"N, Lon - 87° 19' 06.00"W

Required Investigation: VS, ES

Charts Affected: 11378, 11383

INVESTIGATION

Date(s)/DN(s): 3-16-94 / 075 (OPR-J233-AHP2, H-10523)

Position Numbers: 979-998 Launch Number: 0517

Investigation Used: Chain drag

Position Determined By: Ashtech Ranger XII DGPS

Investigation Summary: A 50 meter radius chain drag using 60 feet of chain and 60 feet of line was conducted at 10 meter line spacing. Nothing was found. A page sized plot of the trackline covered by this drag is included in the appendix to the descriptive report.

CHARTING RECOMMENDATION

The Hydrographer recommends removing the pier ruins symbol from the chart 11383. *concur*

Recommended Position: None

Recommended Least Depth: None

\*\*\*\*\*

COMPILATION NOTES

Chart

Applied As



AWOIS NO: 8786 ✓

Item Description: OBSTRUCTION

Source: BP169162--1965

AWOIS Position: Lat - 30° 19' 28.50"N, Lon - 87° 21' 53.00"W

Required Investigation: BD, ES

Charts Affected: 11378

-----  
INVESTIGATION

Date(s)/DN(s): 3-16-94 / 075 (OPR-J233-AHP2, H-10523)

Position Numbers: 999-1032      Launch Number: 0517

Investigation Used: Chain drag

Position Determined By: Ashtech Ranger XII DGPS

Investigation Summary: A 50 meter radius chain drag using 60 feet of chain and 60 feet of line was conducted at 10 meter line spacing. The drag was performed from the AWOIS position northward to the offshore ends of piers. Nothing was found. A page sized plot showing the trackline of this drag is included in the appendix\* of the descriptive report.

\* Filed with the hydrographic data.

-----  
CHARTING RECOMMENDATION

The Hydrographer recommends removing the pier symbol from the chart.

*concl*

Recommended Position: None

Recommended Least Depth: None

\*\*\*\*\*

COMPILATION NOTES

Chart

Applied As

CONTROL STATIONS as of 2 Mar 1994

27

No	Type	Latitude	Longitude	H	Cart	Freq	Vel Code	HW/DD/YY	Station Name
001		030°19'41.774	087°10'22.533	0	0	0.0	0.0	10/01/92	TRIS 1992
002		030°24'27.633	087°12'27.549	0	0	0.0	0.0	10/01/92	PITT Cal Point 1992
003		030°34'03.622	086°59'47.491	0	0	0.0	0.0	12/01/92	Blackwater Channel Light 30
004		030°17'15.417	087°29'09.073	50	0	0.0	0.0	11/29/93	EDEM 1993
005		030°18'35.685	087°26'19.266	2	0	0.0	0.0	11/29/93	CAL 1 1993
006		030°24'22.477	087°26'10.133	2	0	0.0	0.0	11/29/93	CAL 2 1993



RESPONSIBLE PERSONNEL	
TYPE OF ACTION	NAME
OBJECTS INSPECTED FROM SEAWARD	ORIGINATOR <input type="checkbox"/> PHOTO FIELD PARTY <input type="checkbox"/> HYDROGRAPHIC PARTY <input type="checkbox"/> GEODETIC PARTY <input type="checkbox"/> OTHER (Specify)
POSITIONS DETERMINED AND/OR VERIFIED	FIELD ACTIVITY REPRESENTATIVE
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES	OFFICE ACTIVITY REPRESENTATIVE <input type="checkbox"/> REVIEWER <input type="checkbox"/> QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE
INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION' (Consult Photogrammetric Instructions No. 64.)	
<b>OFFICE</b> <b>I. OFFICE IDENTIFIED AND LOCATED OBJECTS</b> Enter the number and date (including month, day, and year) of the photograph used to identify and locate the object. EXAMPLE: 75E(C)6042 8-12-75	<b>FIELD (Cont'd)</b> <b>B. Photogrammetric field positions** require entry of method of location or verification, date of field work and number of the photograph used to locate or identify the object.</b> EXAMPLE: P-8-V 8-12-75 74L(C)2982
<b>FIELD</b> <b>I. NEW POSITION DETERMINED OR VERIFIED</b> Enter the applicable data by symbols as follows: F - Field L - Located V - Verified 1 - Triangulation 2 - Traverse 3 - Intersection 4 - Resection 5 - Field identified 6 - Theodolite 7 - Planetable 8 - Sextant A. Field positions* require entry of method of location and date of field work. EXAMPLE: F-2-6-L 8-12-75 *FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.	<b>II. TRIANGULATION STATION RECOVERED</b> When a landmark or aid which is also a triangulation station is recovered, enter 'Triang. Rec.' with date of recovery. EXAMPLE: Triang. Rec. 8-12-75 <b>III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH</b> Enter 'V-Vis.' and date. EXAMPLE: V-Vis. 8-12-75 **PHOTOGAMMETRIC FIELD POSITIONS are dependent entirely, or in part, upon control established by photogrammetric methods.



**U.S. DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
 NATIONAL OCEAN SERVICE

Coast and Geodetic Survey  
 Atlantic Hydrographic Party  
 439 West York St.  
 Norfolk, VA 23510-1114

March 23, 1994

**ADVANCE  
 INFORMATION**

Commander, (OAN)  
 Eighth U. S. Coast Guard District  
 Hale Boggs Federal Building  
 501 Magazine St.  
 New Orleans, LA 70130-3396

Dear Sir,

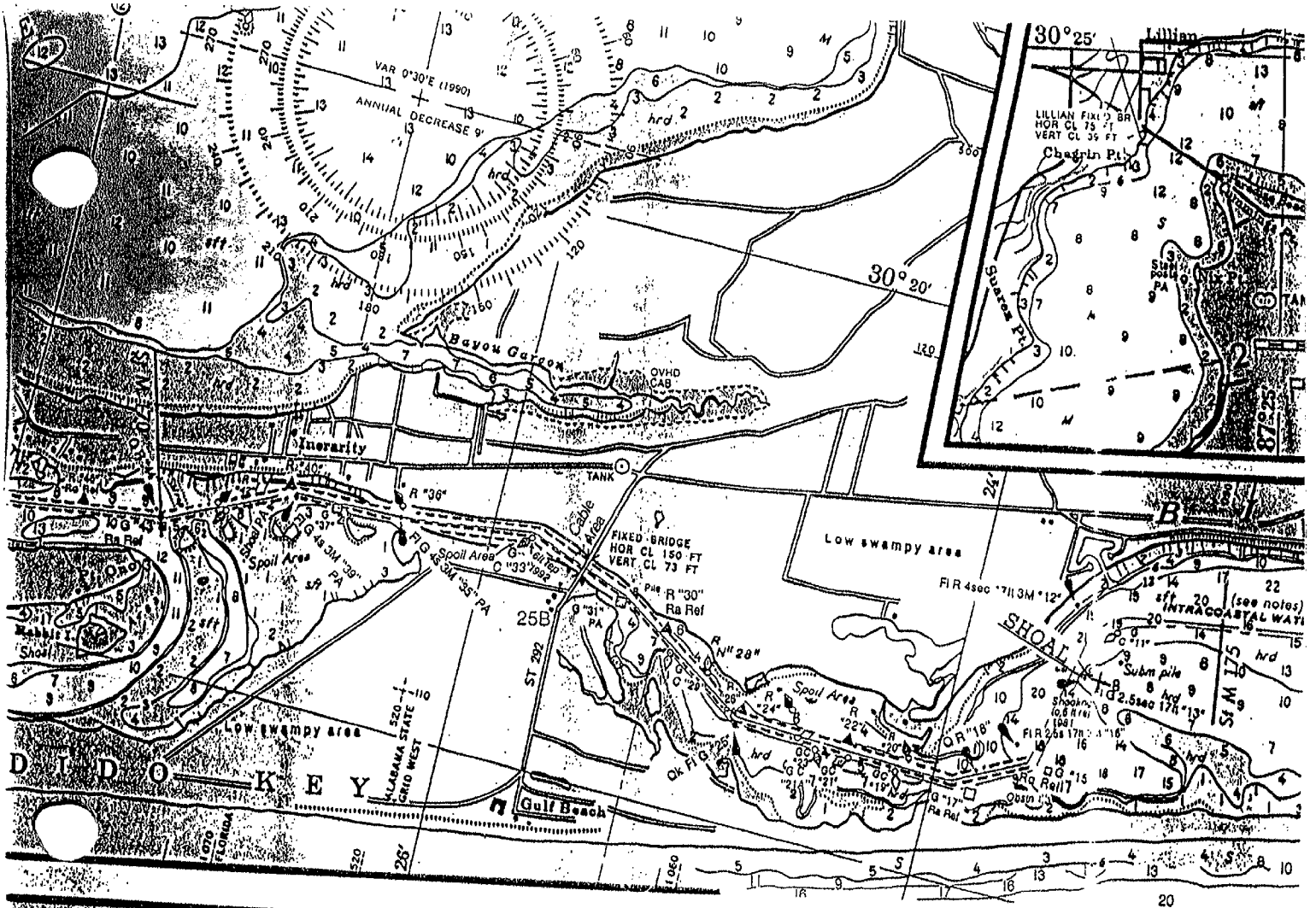
While conducting a basic hydrographic survey (Registry No. H-10523) of (Pensacola) Big Lagoon, the following uncharted shoal was identified as a danger to navigation and is recommended for inclusion in the Local Notice to Mariners. The position is in NAD 83 datum and the depth has been reduced to Mean Lower Low Water (MLLW) using predicted tides. This information affects chart 11378 26th Edition/Sept 5/92, NAD 1983 datum.

Feature	Latitude	Longitude	Least Depth
Shoal	30°18'50.0"N	087°23'25.0"W	2.3 ft

This feature was located using Differential Global Positioning System. A chart section showing the location of this danger is attached.

THIS IS ADVANCE FIELD INFORMATION  
 SUBJECT TO OFFICE VERIFICATION





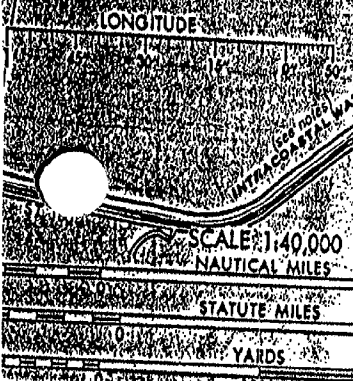
# NAUTICAL CHART 11378 INTRACOASTAL WATERWAY SANTA ROSA SOUND TO DAUPHIN ISLAND FLORIDA — ALABAMA.

MERCATOR PROJECTION AT SCALES 1:40,000 AND 1:80,000  
SOUNDINGS IN FEET AT MEAN LOWER LOW WATER  
North American Datum of 1983  
(World Geodetic System 1984)

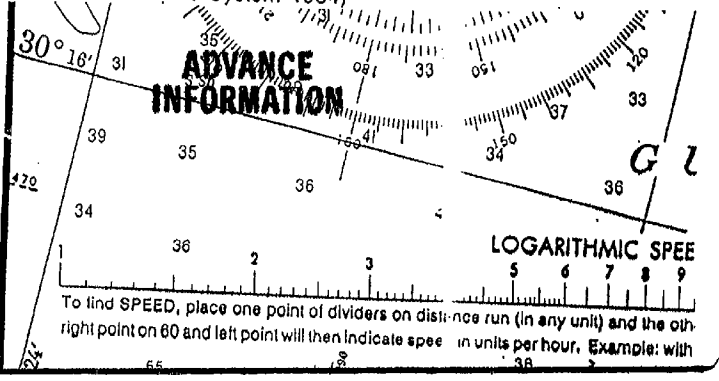
**CAUTION**  
Only magnetic compasses have been calibrated for surface use. Limitations on the use of certain other radio-aided aids to marine navigation can be found in the U.S. Coast Guard Light List and Defense Mapping Agency Publication 17.

Radio direction finder bearings to commercial broadcasting stations are subject to error and should be used with caution.  
Station positions are shown thus:  
○ (Circle) (Location) (Approximate location)

**NOTE S**  
Regulations for Ocean Dumping Sites are published in 40 CFR Parts 220-229. Additional information concerning the regulations and requirements for use of the sites may be obtained from the Environmental Protection Agency (EPA). See U.S. Coast Guard's appendix for addresses of EPA offices.

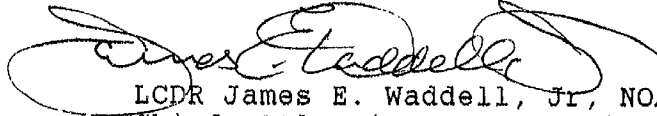


**NOTE E**  
Numerous oyster beds exist within the bay areas of this chart. Mariners should exercise extreme caution when navigating in and near the areas thus labeled in order to avoid damage to the beds.



Questions concerning this report should be directed to me at (904) 458-0067 or Mr. Dennis Hill at the Pacific Hydrographic Section, Seattle, WA at (206) 526-6853.

Sincerely,

A handwritten signature in cursive script, appearing to read "James E. Waddell, Jr.", enclosed within a large, loopy circular flourish.

LCDR James E. Waddell, Jr, NOAA  
Chief, Atlantic Hydrographic Party  
Atlantic Hydrographic Party

Attachment

cc: N/CG221  
N/CG245  
DMAHTC



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL OCEAN SERVICE  
OFFICE OF CHARTING AND GEODETIC SERVICES  
Seattle, Washington 98115-0070

July 5, 1995

**ADVANCE  
INFORMATION**

Commander (OAN)  
Eighth Coast Guard District  
Hale Boggs Federal Building  
501 Magazine St.  
New Orleans, LA 70130-3396

Dear Sir:

During office review of hydrographic survey H-10523, Florida, Big Lagoon, Fort McRee to Gulf Coast, two shoal soundings were found and are considered potential dangers to navigation affecting the following chart.

<u>Chart</u>	<u>Edition/date</u>	<u>Datum</u>
11378	27th, 05/07/94	NAD 83

It is recommended that the enclosed Report of Dangers to Navigation be included in the Local Notice to Mariners. This letter supersedes a previously reported 2.3 ft (0.7 m) shoal submitted as a danger to navigation by the Atlantic Hydrographic Field Party, letter dated March 23, 1994.

Questions concerning this report should be directed to the Pacific Hydrographic Section at (206) 526-6853.

Sincerely,

*Kathy A. Timmons*

Kathy A. Timmons  
Commander, NOAA  
Chief, Pacific Hydrographic Section

Enclosure

cc: DMA/HTC  
N/CG221  
NCS/261





REPORT OF DANGERS TO NAVIGATION

Hydrographic Survey Registry Number: H-10523  
Survey Title: State: FLORIDA  
Locality: BIG LAGOON  
Sublocality: FORT MCREE TO GULF BEACH

Project Number: OPR-PJ223-AHP, Atlantic Hydrographic Field Party

The following were discovered during hydrographic surveying operations:

Affected nautical chart:

Chart Number	Edition		Horizontal Depth	Datum	Geographic Position	
	No.	Date			Latitude(N)	Longitude(W)
11378	27th	05/07/94	3 feet	NAD 83	30/18/53.8	87/23/19.6
11378	27th	05/07/94	4 feet	NAD 83	30/18/48.9	87/23/25.1

Depths reduced to Mean Lower Low Water using approved tides.

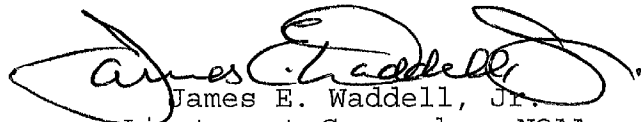
Questions concerning this report should be directed to the Pacific Hydrographic Section at  
(206) 526-6853.

APPROVAL SHEET

BASIC HYDROGRAPHIC SURVEY  
OPR-J223-AHP  
AHP-10-17-93  
H-10523  
1993

This basic hydrographic survey was conducted in accordance with the project instructions for OPR-J223-AHP, the Hydrographic Manual, the Hydrographic Survey Guidelines, and the Field Procedures Manual. All reports were reviewed by Mr. Brian Link, Assistant Chief of Party. The final sounding plot and descriptive report were reviewed and approved by LCDR James E. Waddell, Jr., Chief of Party. All supporting data and records were approved through Team Processing with Pacific Hydrographic Section in Seattle, Washington.

This survey is a complete basic hydrographic survey for the area described in Section B of this report.

  
James E. Waddell, Jr.  
Lieutenant Commander, NOAA  
Chief, Atlantic Hydrographic Party



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL OCEAN SERVICE  
Office of Ocean and Earth Sciences  
Silver Spring, Maryland 20910

ORIGINAL

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE: July 6, 1994

MARINE CENTER: Pacific

HYDROGRAPHIC PROJECT: OPR-J223-AHP2

HYDROGRAPHIC SHEET: H-10523

LOCALITY: Florida, Big Lagoon Fort McRee to Gulf Beach

TIME PERIOD: December 10, 1993 - March 16, 1994

TIDE STATION USED: 872-9909 Grand Lagoon Yacht Club, Fl.  
Lat.  $30^{\circ} 19.6'N$  Lon.  $87^{\circ} 21.4'W$

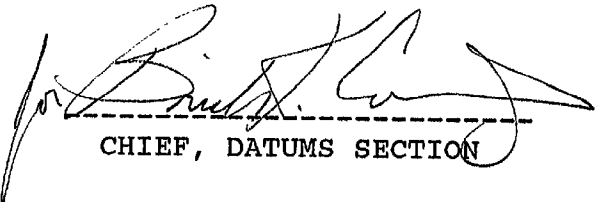
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 2.83 ft.

HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 1.0 ft.

REMARKS: RECOMMENDED ZONING

Times and heights are direct on Grand Lagoon Yacht Club, Fl.  
(872-9909).

Note: Times are tabulated in Central Standard Time.

  
CHIEF, DATUMS SECTION



GEOGRAPHIC NAMES

Name on Survey	A ON CHART NO. 11378 B ON PREVIOUS SURVEY NO. H-5609 C ON U.S. QUADRANGLE MAPS D FROM LOCAL INFORMATION E ON LOCAL MAPS F P.O. GUIDE OR MAP G RAND McNALLY ATLAS H U.S. LIGHT LIST K											
	BIG LAGOON	X	X	X								
FLORIDA (title)	X	X	X									2
FORT MCREE	X	X	X									3
GULF BEACH (title)	X	X	X									4
LANGLEY POINT	X	X	X									5
PENSACOLA BAY	X	X	X									6
PERDIDO KEY	X	X	X									7
QUINAVISTA (locale)		X	X									8
REDFISH POINT	X	X	X									9
SEAGLADES (locale)		X	X									10
SHERMAN COVE	X	X	X									11
SHERMAN INLET		X	X									12
SPANISH POINT	X	X	X									13
TROUT POINT	X	X	X									14
												15
												16
												17
												18
												19
												20
												21
												22
												23
												24
												25

Approved:

*Antonio J. Lopez*  
Chief Geographer

OCT 31 1995

**HYDROGRAPHIC SURVEY STATISTICS**

H-10523

RECORDS ACCOMPANYING SURVEY: To be completed when survey is processed.

RECORD DESCRIPTION		AMOUNT	RECORD DESCRIPTION		AMOUNT
SMOOTH SHEET		1	SMOOTH OVERLAYS: POS., ARC, EXCESS		
DESCRIPTIVE REPORT		1	FIELD SHEETS AND OTHER OVERLAYS		
DESCRIP-TION	DEPTH/POS RECORDS	HORIZ. CONT. RECORDS	SONAR-GRAMS	PRINTOUTS	ABSTRACTS/SOURCE DOCUMENTS
ACCORDION FILES	1				
ENVELOPES					
VOLUMES					
CAHIERS					
BOXES					

**SHORELINE DATA**

SHORELINE MAPS (List):

PHOTOBATHYMETRIC MAPS (List):

NOTES TO THE HYDROGRAPHER (List):

SPECIAL REPORTS (List):

NAUTICAL CHARTS (List):

**OFFICE PROCESSING ACTIVITIES**

The following statistics will be submitted with the cartographer's report on the survey

PROCESSING ACTIVITY	AMOUNTS			
	VERIFICATION	EVALUATION	TOTALS	
POSITIONS ON SHEET			978	
POSITIONS REVISED				
SOUNDINGS REVISED				
CONTROL STATIONS REVISED				
	TIME-HOURS			
	VERIFICATION	EVALUATION	TOTALS	
PRE-PROCESSING EXAMINATION				
VERIFICATION OF CONTROL				
VERIFICATION OF POSITIONS	31.5		31.5	
VERIFICATION OF SOUNDINGS	59		59	
VERIFICATION OF JUNCTIONS				
APPLICATION OF PHOTOBATHYMETRY				
SHORELINE APPLICATION/VERIFICATION				
COMPILATION OF SMOOTH SHEET	58		58	
COMPARISON WITH PRIOR SURVEYS AND CHARTS				
EVALUATION OF SIDE SCAN SONAR RECORDS				
EVALUATION OF WIRE DRAGS AND SWEEPS				
EVALUATION REPORT		27	27	
GEOGRAPHIC NAMES				
OTHER				
*USE OTHER SIDE OF FORM FOR REMARKS				
	<b>TOTALS</b>	148.5	27	175.5

Pre-processing Examination by <b>LI M. Larsen</b>	Beginning Date 5/19/94	Ending Date 6/7/94
Verification of Field Data by <b>I. Almacen, R. Davies</b>	Time (Hours) 148.5	Ending Date 6/28/95
Verification Check by <b>B. Olmstead</b>	Time (Hours) 2	Ending Date 9/28/95
Evaluation and Analysis by <b>R. Davies</b>	Time (Hours) 27	Ending Date 7/10/95
Inspection by <b>B. Olmstead</b>	Time (Hours) 20	Ending Date 10/3/95

## EVALUATION REPORT

H-10523

### A. PROJECT

Project information is discussed in the hydrographer's report.

### B. AREA SURVEYED

This survey was conducted in Florida, and is located in Big Lagoon between Fort McRee and Gulf Beach. The surveyed area is bounded by latitude 30/20/15N to the north and latitude 30/18/05N to the south. The eastern limit is longitude 87/18/57W and the western limit is longitude 87/25/42W. Big Lagoon is situated between Pensacola Bay and Perdido Bay and the Intracoastal Waterway is found within the survey area. The survey area is characterized by numerous private piers and several small marinas. Depths range from 0.4 meter to 6.6 meters. The bottom consists mainly of sand, mud and shells.

### C. SURVEY VESSELS

Reference the hydrographer's report for information relating to the survey vessels.

### D. AUTOMATED DATA ACQUISITION AND PROCESSING

Survey data were processed using the same Hydrographic Data Acquisition/Processing System (HDAPS) software used by the hydrographer, the Hydrographic Processing System (HPS) and AutoCad, Version 12.

At the time of the survey certification the format for transmission of digital data had not been formally approved. In the interim, digital data for this survey exists in the standard HPS format which is a database format using the .dbf extension. In addition, the sounding plot, created with .dbf data and enhanced using the AutoCad system, is filed both in the AutoCad drawing format, i.e., .dwg; and in the more universally recognized graphics transfer format, .dxf extension. Copies of these files will be retained at PHS until data transfer protocols are developed and improved.

The drawing files necessarily contain information which is not part of the HPS data set such as geographic names text, line-type data, and minor symbolization. In addition, those soundings deleted from the drawing for clarity purposes, remain unversed in the HPS digital files to preserve the integrity of the original hydrographic data set. Cartographic codes used to describe the digital data are those authorized by Hydrographic Survey Guideline No. 75.

The field sheet parameters have been revised to center the hydrography on the office plot. Data is plotted using a Modified Transverse Mercator projection and are depicted on a single sheet.

### E. SONAR EQUIPMENT

Side scan sonar was not used on survey H-10523.

## **F. SOUNDING EQUIPMENT**

Sounding equipment is discussed in the hydrographer's report.

## **G. CORRECTIONS TO SOUNDINGS**

Predicted tides for Pensacola, Florida were used for the reduction of soundings during field processing. Approved hourly heights zoned direct from Grand Lagoon Yacht Club, Florida, gage 872-9909 were used during office processing. Soundings have been corrected for dynamic draft, actual tides and sound velocity. The offset values and velocity correctors are adequate.

## **H. CONTROL STATIONS**

Sections H and I of the hydrographer's descriptive report contain adequate discussions of horizontal control and hydrographic positioning.

The position of the horizontal control station used during hydrography is a field value based on NAD 83. The smooth sheet is annotated with a NAD 27 adjustment tick based on values determined with NGS program NADCON. Geographic positions based on NAD 27 may be plotted on the smooth sheet utilizing the NAD 83 projection by applying the following corrections.

Latitude:	0.721 seconds	(22.203 meters)
Longitude:	-0.092 seconds	(-2.450 meters)

The year of establishment of the control station shown on the smooth sheet originates with the horizontal control report and the hydrographer's signal list.

## **I. HYDROGRAPHIC POSITION CONTROL**

Differential GPS (DGPS) was used to control this survey. NAD 83 is used as the horizontal datum for plotting and position computations. A horizontal dilution of precision (HDOP) not to exceed 3.75 was computed for survey operations. No positions exceeded the limits in terms of horizontal dilution of precision (HDOP).

## **J. SHORELINE**

Cartographic Revision Survey BP-149683 (TP-00545) and BP-149965 (TP-00543), updated by NANCEI support data was compiled on NAD 27 and applies to this survey.

Numerous piers throughout the survey area are depicted on the smooth sheet with a solid red line and were transferred from the final field sheet with supporting positional information. These revisions are adequate to supersede the common photogrammetrically delineated shoreline.

The following shoreline changes are depicted on the smooth sheet with a dashed red line. These revisions are approximate but adequate to supersede the common photogrammetrically delineated shoreline.

	<u>Latitude</u>	<u>Longitude</u>
HWL	30/19/54N	87/19/18W
HWL between	30/19/51N	87/19/27W
and	30/19/48N	87/19/33W

### **K. CROSSLINES**

Crosslines are discussed in the hydrographer's report.

### **L. JUNCTIONS**

Survey H-10523 junctions with the following surveys.

<u>Survey</u>	<u>Year</u>	<u>Scale</u>	<u>Area</u>
H-9995	1982-83	1:10,000	East
H-10528	1994	1:10,000	West

The junction with survey H-10528 is complete and the soundings are in good agreement.

The junction with survey H-9995 was not formally completed since this survey was previously processed and forwarded for charting. The junction comparison was made using a copy. There is good agreement between soundings within the dredged Intracoastal Waterway, a difference of 0.3 to 0.6 meters (1 to 2 ft). Outside of the Waterway, soundings are in poor agreement, with differences of between 0.6 to 1.2 meters (2 to 4 ft). This difference can be attributed to a very unstable sanding bottom and hurricane activity since 1982. In addition, the depth curves shown on survey H-9995 delineate different depths, and therefore, do not agree with the present survey.

### **M. COMPARISON WITH PRIOR SURVEYS**

H-5669 (1934-35) 1:10,000

Survey H-5669 covers the entire area of the present survey. The majority of the shoreline in the area shows minor changes through natural processes and man-made construction. However, a few changes are readily evident in the following locations. Sherman Cove has been created. The Intracoastal Waterway has been cut through the area between latitude 30/19/50N, longitude 87/19/36W and latitude 30/20/00N, longitude 87/19/00W. As a result of this dredged channel, an island has been created at latitude 30/19/48N, longitude 87/19/21W. The old channel that existed in 1934-35, centered at latitude 30/19/38N, longitude 87/19/15W, appears to no longer be maintained. Depths to 8 ft were found by the present survey in this channel where 15-17 ft depths once existed.

The following are other areas of significant change. Redfish and Trout Points have eroded shoreward between 100 to 175 meters and a peninsula of land at latitude 30/18/21N, longitude 87/25/12W has become an island. Several small islets which existed in 1934-35 are no longer evident.

Depths in Big Lagoon found by the present survey, are generally shoaler by 0.6 to 1.2 meters (2 to 4 ft.) However, depths at the entrance to and inside the Intracoastal Waterway are



generally 1-3 ft deeper. New construction consisting of piers and marinas are present throughout the survey area and did not exist on the prior survey

AWOIS Item 8446 originates with this prior survey and has been satisfactory addressed during survey operations. Refer to the hydrographer's report for a discussion and disposition of this feature.

Survey H-10523 is adequate to supersede the above mentioned prior survey within the common area.

#### **N. ITEM INVESTIGATIONS**

With the exception of AWOIS item 8446 which originates with prior survey H-5669, all AWOIS items originate with miscellaneous sources. Refer to the hydrographer's descriptive report for discussion and disposition of these features.

#### **O. COMPARISON WITH CHART**

Survey H-10523 was compared with the following charts.

<u>Chart</u>	<u>Edition</u>	<u>Date</u>	<u>Scale</u>	<u>Datum</u>
11378SC	27th	May 7, 1994	1:40,000	NAD83
11383	46th	Jan 2, 1994	1:30,000	NAD83

##### **a. Hydrography**

Charted hydrography originates with the above mentioned prior survey and miscellaneous sources. The prior survey is discussed in section 6 and requires no further discussion.

Depths of 0.6 to 2.0 meters (2.0-6.0 ft) were found by this survey to exist on either side of the Intracoastal Waterway between Pensacola Bay Navy Range Front Light, latitude 30/20/05N, longitude 87/18/58W and Intracoastal Waterway Daybeacon 31, latitude 30/18/40N, longitude 87/25/24W. It is recommended that this area be monitored for shoaling.

Except for the features mentioned in section P of this report, survey H-10523 is adequate to supersede charted hydrography within the common area.

#### **P. ADEQUACY OF SURVEY**

Except as noted below, hydrography is adequate to:

- a. delineate the bottom configuration, determine least depths, and draw the standard depth curves;
- b. reveal there are no significant discrepancies or anomalies requiring further investigation; and
- c. show the survey was properly controlled and soundings are correctly plotted.

The hydrographic records and reports received for processing are adequate and conform to the requirements of the Hydrographic Manual, 4th Edition, revised through Change No. 3, the Hydrographic Survey Guidelines, and the Field Procedures Manual, March 1993 Edition, with the following exceptions.

A group of submerged piles charted at latitude 30/18/54N, longitude 87/21/26W, was not discussed or investigated by the hydrographer. This feature should be retained as charted.

Five ruins charted at latitude 30/19/40N and between longitude 87/21/06W and longitude 87/21/17W, were not investigated or discussed by the hydrographer. All of the features should be retained as charted.

One pier and one ruins charted at latitude 30/19/40N, longitude 87/21/18W, should be removed and a pier and ruins should be charted accordingly to this survey. See smooth sheet for depiction.

The hydrographer did not list or discuss the junction with survey H-9995.

Two dangers to navigation were found during office processing and reported to the USCG. These dangers revise the hydrographer's findings in an attached letter dated July 5, 1995.

#### **Q. AIDS TO NAVIGATION**

There are 16 fixed and 17 floating aids to navigation located within the survey area. There are also 8 privately maintained markers marking a channel into a small boat basin. Refer to section Q in the hydrographer's report and the attached 76-40 form for their positions.

The following aid to navigation falls within the survey limits and was not discussed or located. This aid was transferred to the smooth sheet from the shoreline map.

<u>Aid</u>	<u>Latitude</u>	<u>Longitude</u>
Pensacola Bay Navy Range Rear Light	30/20/05.3N	87/19/05.8W

A landmark, tank, charted at latitude 30/19/08N, longitude 87/25/03W, was not discussed for its landmark value. It is recommended that this landmark be retained as charted.

#### **R. STATISTICS**

Statistics are itemized in the hydrographer's report.

#### **S. MISCELLANEOUS**


No additional miscellaneous items were noted during office processing.

#### **T. RECOMMENDATIONS**

This is an adequate hydrographic survey. Additional work is recommended on a low priority basis to locate the features mentioned in section P of this report.

**U. REFERRAL TO REPORTS**

Referral to reports is discussed in the hydrographer's report.

  
Russ Davies  
Cartographer

APPROVAL SHEET  
H-10523

Initial Approvals:

The completed survey has been inspected with regard to survey coverage, delineation of the depth curves, development of critical depths, cartographic symbolization, comparison with prior surveys and verification or disproval of charted data. The digital data have been completed and all revisions and processing have been entered in the magnetic tape record for this survey. Final control, position, and sounding printouts have been made and are included with the survey records. The survey records and digital data comply with NOS requirements except where noted in the Evaluation Report.

Bruce A. Olmstead Date: 10/4/95  
Bruce A. Olmstead  
Senior Cartographer, Cartographic Section  
Pacific Hydrographic Branch

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

Kathy Timmons Date: 10/10/95  
Kathy Timmons  
Commander, NOAA  
Chief, Pacific Hydrographic Branch

\*\*\*\*\*

Final Approval

Approved:

Andrew A. Armstrong III Date: 10/20/95  
Andrew A. Armstrong III  
Captain, NOAA  
Chief, Hydrographic Surveys Division

