

H-10528

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-10-04-94
Registry No. H-10528

LOCALITY

State Florida/Alabama
General Locality Perdido Bay
Sublocality Gulf Beach to Ross Point

1994

CHIEF OF PARTY
LCDR James E. Waddell, Jr., NOAA

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DATE NOV...7.1995.....

HYDROGRAPHIC TITLE SHEET

H-10528

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-10-04-94

State Florida/Alabama

General locality Perdido Bay

Locality Gulf Beach to Ross Point

Scale 1:10,000 Date of survey Feb 18 - Mar 29, 1994

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

Vessel AHP 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 M. McMann, J. Budlong

Graphic record checked by M. McMann, J. Budlong

Verification by: I. Almacen

~~Produced by~~ Automated plot by HP Design Jet Plotter

Evaluation by: I. Almacen

~~Verification by~~

Soundings in meters ~~fathoms~~ ~~fms~~ at MLLW and decimeters

REMARKS: Time in UTC. Revisions and marginal notes in black were generated during office processing. Some separates are filed with the hydrographic data, as a result page numbering may be interrupted or non-sequential.

AWOL/SURF 11/9/95

MLR

J. Clark
NOV 7 1995

DESCRIPTIVE REPORT TO ACCOMPANY
HYDROGRAPHIC SURVEY H-10528
FIELD NO. AHP2-10-4-94
SCALE: 1:10,000
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 and amended by Change No. 1 dated January 4, 1993 and Change No 2, dated October 13, 1993. This survey is designated as Sheet "C" 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., Sec. B)

The area surveyed for H-10528 covers Perdido Bay from Gulf Beach to Ross Point. The survey limits are as follows:

North - 30°20'15"N
South - 30°16'50"N
East - 087°25'15"W
West - 087°31'05"W

This survey was conducted from February 18, 1994 (DN 049) to March 29, 1994 (DN 088).

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 (See EVAL RPT., Sec. D)

The Hydrographic Data Acquisition and Processing System (HDAPS) was used to process all hydrographic data for this survey. PC-DAS based HDAPS version 4.03 was used for on-line

data acquisition. A listing of HDAPS programs used for data processing and their corresponding version numbers is 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 241, was used to collect all soundings. 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 long wooden sounding pole, marked according to Hydrographic Survey Guideline (HSG) No. 69, was used to obtain any pole soundings. No problems were encountered with any of the sounding equipment. The Innerspace echo sounder operates at 700 kHz and has an 8° conical beam pattern.

G. CORRECTIONS TO SOUNDINGS (See EVAL RPT., Sec. G)

Soundings were recorded using the Innerspace model 448 depth sounder. It was adjusted for an assumed speed of sound through water of 1500 meters/second. Corrections for the speed of sound through water were computed from data obtained with Odom Hydrographic Systems, Inc. DIGIBAR electronic probe, serial number 154. Data quality assurance tests were performed in accordance with Field Procedures Manual (FPM) 2.1.3.2, prior to each cast. Program VELOCITY, version 2.0, was used to compute speed of sound through water corrections. Copies of the velocity tables and cast data are in the "Survey Separates." *

* Filed with the hydrographic records.

The following velocity casts were taken:

<u>Velocity Table No.</u>	<u>Cast No.</u>	<u>Deepest Depth (m)</u>	<u>Position</u>	<u>Cast Day</u>
None	1	5.4/7.1	30°18'50"N 087°25'30"W	46
None	2	5.2/6.7	30°18'50"N 087°25'30"W	66
None	3	4.3/5.5	30°18'50"N 087°25'30"W	74
None	4	5.5/7.1	30°18'50"N 087°25'30"W	84

None of the casts taken resulted in any velocity correctors. No velocity ^{corrections} tables were applied to the data.

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 can be found 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 meter 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 (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 two different tide zones. North of Inerarity Point, a +3 hr. 30 min. time corrector and a x0.55 range ratio were applied to the predicted tides. South of Inerarity Point, in Old River and Bayou St. John, a +3 hr. 10 min. time corrector and a x0.50 range ratio were applied.

The final field sheet 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 May 17, 1994. A copy of the letter is appended to this report. * Approved Tide Note dated July 6, 1994 is attached.

* Filed with the hydrographic records.

H. CONTROL STATIONS (See EVAL RPT., Sec. H)

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

AHP used the Global Positioning System (GPS) to establish horizontal control for this project. The horizontal control report was written and submitted by AHP in November 1993 for OPR-J223-AHP, to N/CG2333. ✓

I. HYDROGRAPHIC POSITION CONTROL (See EVAL RPT., Sec. I)

Differential GPS was used as the method of positioning for all hydrographic data on this survey. An Ashtech model XII receiver, serial number 700157E1076, was used for the reference station. An Ashtech sensor, serial number 700417A1065, was used as the remote station on vessel 0517. TAD VHF radios, using frequency 170.200 Mhz, were used as the data link between reference and remote stations. This equipment meets the accuracy requirements 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 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. *See Eval Rpt. Section I.* ✓

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. Data appears consistent with surrounding information.* ✓

J. SHORELINE (See EVAL RPT., Sec. 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. West of 087°30'00"W, TP-00542 was used for the shoreline source. This T-map had no cartographic revision survey number. These manuscripts were compiled using NAD 1927 at ✓

** Filed with the hydrographic records.*

1:20,000 scale and enlarged to 1:10,000 for use on this survey. The only shoreline changes noted from the CRS blueprints were the addition of piers. *An extensive network of canals was also found to exist on Ono Island. These areas have been shown in dashed red to reflect shoreline revision.* 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-00543, CRS-149965 and TP-00542 in their common area. *Concur.*

The following features were identified on this survey which did not appear on TP-00542, TP-00543 or CRS-149965:

<u>Position</u>	<u>Latitude</u>	<u>Longitude</u>	<u>Description</u>
20	30°18'44.22"N	087°26'21.28"W	Cable X-ing sign
21	30°18'41.06"N	087°26'23.10"W	Wood Groins (2)
22	30°18'22.98"N	087°26'37.34"W	Wood Pier
23	30°18'15.16"N	087°28'33.04"W	Wood Pier
24	30°18'14.96"N	087°28'34.30"W	Wood Pier
25	30°18'46.57"N	087°28'36.07"W	Wood Pier
26	30°18'14.06"N	087°28'37.16"W	Wood Pier
27	30°18'14.03"N	087°28'37.78"W	Wood Pier
28	30°18'14.43"N	087°28'38.58"W	Wood Pier
29	30°18'13.81"N	087°28'42.05"W	Wood Pier
30	30°18'14.63"N	087°28'43.65"W	Wood Pier
31	30°18'00.25"N	087°29'56.85"W	Wood Pier
32	30°18'01.42"N	087°30'04.60"W	Wood Pier
33	30°18'34.44"N	087°27'57.85"W	Wood Pier <i>(and in ruins)</i>
34	30°18'48.79"N	087°26'25.96"W	Cable X-ing sign
35	30°18'49.39"N	087°26'08.19"W	Wood Pier

Photographs of the new features are in the "Survey Separates."* A complete list of all detached positions by day is included in the accordion file. It lists the position of each feature or item number.

Recommendation: The hydrographer recommends that shoreline changes from this survey be used to supersede charted shoreline. *Concur.*

K. CROSSLINES ✓

A total of 16.5 nautical miles of crosslines were run, representing 10.0% of the mainscheme hydrography. Crossline soundings agree to within 0.5 meter of the mainscheme soundings.

** Filed with the hydrographic records.*

L. JUNCTIONS (See EVAL RPT., Sec. L)

This survey junctions with H-10525 to the west and H-10526 to the north. Junctions with H-10525 are generally good, comparing within 0.3-0.4 meter. Junctions with H-10526 are within 0.5 meter. H-10523 (1993-94) junctions to the east along the Intracoastal Waterway.

M. COMPARISON WITH PRIOR SURVEYS (See EVAL RPT., Sec. M)

The prior survey comparison will be performed by PHS. The prior survey covering this area is H-5706, 1:20,000, 1934-1935. One AWOIS item, number 8671, originated from the prior survey.

Recommendation: The hydrographer recommends that data from the present survey be used to supersede that of H-5706 within their common areas. *CONCUR.*

N. ITEM INVESTIGATION REPORTS (See EVAL RPT., Sec. N)

Seven items, numbers 8450, 8457, 8526, 8527, 8528, 8671 and 8771, were investigated as part of this survey. The item investigation reports are appended to this report.

O. COMPARISON WITH THE CHART (See EVAL RPT., Sec. O)

Comparisons were made with chart 11378, 26th Edition, Sept. 5, 1992.

One danger to navigation, a shoal, was identified during this survey. A copy of the letter forwarded to the Commander, Eighth U.S. Coast Guard District describing the danger and a copy of the survey with the feature labeled is appended to this report.

Soundings compared well with those charted south of a line between Inerarity Pt. and Ross Pt. North of the line, the present survey's soundings are up to 1.0 meter shoaler than charted soundings. This may be due to silting in the main body of Perdido Bay where tides and currents are not as strong as in the Intracoastal Waterway section of this survey. *CONCUR.*

Discrepancies with the chart are as follows:

An uncharted dredged channel marked by privately maintained buoys^{2 markers} was located running from the Intracoastal Waterway in the vicinity of 30°18'45"N, 087°26'25"W, south into Holiday Harbor Marina. A least depth of 1.4 meters was found in the channel at latitude 30/18/36N, longitude 87/26/21W.

Recommendation: The channel and private markers should be charted with a ³ ft. 1994 notation.

A small island located in the vicinity of 30°18'20"N, 087°27'05"W, was not found during mainscheme hydrography. Least depths in the area were 0.4 meter.

Recommendation: The small island should be deleted from the chart and replaced by representative soundings from this survey. *Concur.*

A small island located at 30°18'35"N, 087°27'55"W, was not found during mainscheme hydrography. Least depths in the area were 0.4 meter.

Recommendation: The small island should be deleted from the chart and replaced by representative soundings from this survey. *Concur.*

An uncharted shoal in the vicinity of 30°18'22"N, 087°28'05"W, was developed to 50-meter line spacing and a least depth of 0.8 meter was found.

Recommendation: The hydrographer recommends sounding data from this survey be used to update the chart. *Concur.*

A line of charted baring shoals running from 30°18'35"N, 087°28'02"W to 30°18'22"N, 087°29'25"W, was developed to 50-meter line spacing and least depths over the shoals were between 0.8 and 1.9 meters. Only east of 087°28'30"W, did this area appear to be a baring shoal.*
* Depths east of lat 30/18/30" N are 0.5-1.9 meters after application of approved tides.

Recommendation: The hydrographer recommends sounding data from this survey be used to update the chart. *Concur.*

An uncharted shoal was located at 30°18'30"N, 087°30'10"W. Mainscheme hydrography in the area was split to 50-meter line spacing and a least depth of 0.8 meter was found. This shoal was reported as a danger to navigation.

Recommendation: The hydrographer recommends sounding data from this survey be used to update the chart. *Concur.* Chart 0.8 meter (2.5 ft) at lat 30/18/29 N, long 87/30/06 W.
(AWOIS ITEM 8458)

Three "4 ft rep June 1965" notes located around Inerarity Pt. centered in the vicinity of 30°18'45"N, 087°30'15"W, were investigated during the course of mainscheme hydrography and no evidence of shoaling was found. These notes are situated inside the 6-foot contour. Depths in the area are between 1.1 meters (3.6 ft) and 2.4 meters (7.9 ft).

Recommendation: The "4 ft rep June 1965" notes should be deleted and replaced by representative soundings from this survey. *Concur.*

An uncharted shoal was located at 30°19'10"N, 087°30'02"W. Mainscheme hydrography was split to 50-meters in this area, and least depths of 0.8 meters were found.
1.2

Recommendation: The hydrographer recommends sounding data from this survey be used to update the chart. *Concur.*

An 11-foot shoal charted at 30¹⁹45"N, 087°28'35"W, was developed to 50-meter line spacing and no indication of shoaling was found. Current survey depths in the area are ~~2.8-3.1~~ meters (9.2-10.2 ft). ^{3.2-3.3}
~~10'-11'~~

Recommendation: The hydrographer recommends sounding data from this survey be used to update the chart. *Concur.*

A 12-foot shoal in the vicinity of 30°20'00"N, 087°28'20"W, was developed to 50-meter line spacing and no indication of shoaling was found. Current survey depths are ~~2.8-3.1~~ meters (9.2-10.2 ft). ^{3.2-3.5}
~~10.5'-11.5'~~

Recommendation: The hydrographer recommends sounding data from this survey be used to update the chart. *Concur.*

Three spoil area notes, one located at 30°18'45"N, 087°25'57"W, one at 30°18'30"N, 087°26'45"W, and another located at 30°18'30"N, 087°29'00"W, were not developed. Discussions with Mr. Jim Walker of the U.S. Army Corps of Engineers (205/690-3319) revealed that these areas are still considered active.

Recommendation: The hydrographer recommends the spoil areas remain as charted. *Concur.*

P. ADEQUACY OF SURVEY

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

Q. AIDS TO NAVIGATION (See EVAL RPT., Sec. Q)

There are forty-four aids to navigation in the survey area. Four are lights, twelve are daybeacons with radar reflectors, thirteen are buoys, four are privately maintained daybeacons marking the entrance to a small boat harbor on Ono Island, seven are privately maintained spar buoys, and four are privately maintained piles marking the channel into Holiday Harbor Marina. Six of the aids have a published position in the U.S.C.G Light List, Volume IV, Gulf Of Mexico, 1993.

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

Intracoastal Waterway Buoy 33 (Light List #31305)

Light List Published Position	None	
Surveyed Position (No. 47)	30°18'48.49"N	087°25'48.10"W
Surveyed position is 60m SE of charted position		

Intracoastal Waterway Green Buoy (No Number) (Temporary buoy)

Light List Published Position Not Listed
Surveyed Position (No. 49) 30°18'46.05"N 087°26'20.55"W
Buoy not charted

Intracoastal Waterway Light 35 (Light List #31310)

Light List Published Position 30°18.7'N 087°26.4'W
Surveyed Position (No. 50) 30°18'45.72"N 087°26'20.43"W
Surveyed position is 70 meters E of charted position

Intracoastal Waterway Buoy 36 (Light List #31315)

Light List Published Position None
Surveyed Position (No. 51) 30°18'47.47"N 087°26'24.10"W
Surveyed position agrees with charted position

Intracoastal Waterway Daybeacon 37 (Light List #31320)

Light List Published Position None
Surveyed Position (No. 52) 30°18'45.07"N 087°26'34.90"W
Surveyed position is 110 meters ENE of charted position

Intracoastal Waterway Light 39 (Light List #31325)

Light List Published Position None
Surveyed Position (No. 53) 30°18'44.29"W 087°26'47.04"W
Surveyed position is 60 meters E of charted position

Intracoastal Waterway Buoy 40 (Light List #31330- Daybeacon 40)

Light List Published Position None
Surveyed Position (No. 54) 30°18'47.01"N 087°26'48.58"W
Surveyed Buoy is 75 meters E of charted DBN

Intracoastal Waterway Buoy 39A (Not in Light List)

Light List Published Position Not Listed
Surveyed Position (No. 55) 30°18'40.84"N 087°26'56.97"W
Not Charted

Intracoastal Waterway Buoy 41 (Light List #31335)

Light List Published Position None
Surveyed Position (No. 56) 30°18'38.52"N 087°27'04.25"W
Surveyed position is 50 NE of charted position

Intracoastal Waterway Buoy 42 (Light List #31340)

Light List Published Position None
Surveyed Position (No. 57) 30°18'41.00"N 087°27'05.23"W
Surveyed position is 100 meters NE of charted position

Intracoastal Waterway Buoy 44 (Light List #31350- Light 44) (*Depicted as Light "44" on the latest edition of the chart*)

Light List Published Position None
Surveyed Position (No. 58) 30°18'33.84"N 087°27'21.88"W
Surveyed Buoy agrees with charted light

Intracoastal Waterway Daybeacon 43 (Light List #31345)

Light List Published Position None
Surveyed Position (No. 59) 30°18'30.75"N 087°27'20.02"N
Surveyed position agrees with charted position

Intracoastal Waterway Daybeacon 46 (Light List #31355)

Light List Published Position None
Surveyed Position (No. 60) 30°18'31.58" 087°27'39.46"N
Surveyed position agrees with charted position

Intracoastal Waterway Buoy 47 (Not Listed) (*Charted as daybeacon "47" on the latest edition of chart 11378*)

Light List Published Position None
Surveyed Position (No. 61) 30°18'25.69"N 087°28'02.29"W
Buoy not charted

Intracoastal Waterway Daybeacon 48 (Light List #31360)

Light List Published Position None
Surveyed Position (No. 62) 30°18'28.25"N 087°28'02.76"W
Surveyed position agrees with charted position

Intracoastal Waterway Buoy 49 (Light List #31365)

Light List Published Position None
Surveyed Position (No. 63) 30°18'22.30"N 087°28'22.20"W
Surveyed position is 130 meters E of charted position

Intracoastal Waterway Buoy 50 (Light List #31370)

Light List Published Position None
Surveyed Position (No. 64) 30°18'25.14"N 087°28'24.05"W
Surveyed position is 85 meters E of charted position

Intracoastal Waterway Daybeacon 51 (Light List #31375)

Light List Published Position None
Surveyed Position (No. 65) 30°18'19.77"N 087°28'49.07"W
Surveyed position agrees with charted position

Intracoastal Waterway Daybeacon 52 (Light List #31380)

Light List Published Position None
Surveyed Position (No. 66) 30°18'22.28"N 087°28'49.64"W
Surveyed position agrees with charted position

Intracoastal Waterway Buoy 52A (Light List #31385)

Light List Published Position 30°18.3'N 087°24.4'W
Surveyed Position (No. 67) 30°18'18.44"N 087°29'22.76"W
Not charted

Intracoastal Waterway Buoy 53 (Light List #31390)

Light List Published Position None
Surveyed Position (No. 68) 30°18'14.77"N 087°29'27.52"W
Surveyed position agrees with charted position

Intracoastal Waterway Daybeacon 55 (Light List #31395- Light 55) *(Charted as Light "55" on the latest edition of the chart)*

Light List Published Position None
Surveyed Position (No. 69) 30°18'14.18"N 087°29'43.59"W
Surveyed Daybeacon is 80 meters NW of charted light

Intracoastal Waterway Daybeacon 56 (Light List #31400)

Light List Published Position 30°18.3'N 087°30.0'W
Surveyed Position (No.70) 30°18'21.67"N 087°30'01.23"W
Surveyed position agrees with charted position

Intracoastal Waterway Light 57 (Light List #31405)

Light List Published Position None
Surveyed Position (No. 71) 30°18'17.52"N 087°30'15.82"W
Surveyed position agrees with charted position

Intracoastal Waterway Daybeacon 58 (Light List #31410)

Light List Published Position 30°18.6'N 087°30.4'W
Surveyed Position (No. 72) 30°18'42.02"N 087°30'33.18"W
Surveyed position is 320 meters NW of charted position

Intracoastal Waterway Light 59 (Light List #31415)

Light List Published Position None
Surveyed Position (No. 73) 30°18'48.75"N 087°30'48.29"W
Surveyed position agrees with charted position

Bayou St John Daybeacon 16 (Light List #4985)

Light List Published Position 30°18.0'N 087°30.4'W
Surveyed Position (No.74) 30°17'58.72"N 087°30'24.42"W
Survey position is 50 meters S of charted position

Bayou St John Daybeacon 15 (Light List #4980)

Light List Published Position 30°18.0'N 087°30.4'⁵W
Surveyed Position (No. 75) 30°17'46.94"_{58.82}N 087°30'33.84"_{30.15}W
Survey position is 80 meters SSW of charted position

Bayou St John Daybeacon 13 (Light List #4975)

Light List Published Position None
Surveyed Position (No. 76) 30°17'46.94"N 087°30'33.84"W
Survey position 75 meters WSW of the 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 using current surveyed positions. Recommend the above positions be used for charting unless more current information is available to the compiler.

The privately maintained aids to navigation were located by detached position and are recommended for charting as follows:

<u>Position No.</u>	<u>Latitude (N)</u>	<u>Longitude (W)</u>	<u>Description</u>
36	30°18'35.71"	087°26'20.52"	W spar buoy "Slow No Wake"
37	30°18'35.65"	087°26'19.92"	Pile w/ green board
38	30°18'36.17"	087°26'20.77"	R spar buoy
39	30°18'36.93"	087°26'20.78"	Pile w/ green board
40	30°18'37.43"	087°26'21.73"	R spar buoy
41	30°18'38.05"	087°26'21.44"	Pile w/ green board ✓
42	30°18'38.41"	087°26'22.36"	R spar buoy
43	30°18'39.42"	087°26'22.33"	Pile w/ green board
44	30°18'40.54"	087°26'23.62"	R spar buoy
45	30°18'43.31"	087°26'24.25"	R spar buoy
46	30°18'42.94"	087°26'22.97"	G spar buoy
77	30°17'49.80"	087°30'22.32"	R daybeacon 4
78	30°17'50.64"	087°30'22.63"	G daybeacon 3
79	30°17'50.66"	087°30'18.77"	G daybeacon 1
80	30°17'49.94"	087°30'18.46"	R daybeacon 2

Two cable crossing signs were located by detached position. Position number 20 at 30°18'44.22"N, 087°26'26.28"W, and position number 34 at 30°18'48.79"N, 087°26'25.96"W, were the south and north ends of the cable crossing respectively. ✓

A "Slow Down Minimum Wake" sign on a 0.3 meter diameter wood pile was located by detached position 48 at 30°18'47.25"N, 087°25'55.13"W. ✓

No bridges, overhead cables, landmarks, pipelines, or ferry routes exist within the survey area. *Do not concur. An overhead cable extending across Rabbit Island and a submerged pipeline in the vicinity of Old River are depicted on the shoreline map TP-00543. There are two charted landmarks located within the survey area.*

R. STATISTICS

<u>Description</u>	<u>Quantity</u>
Total Number of Positions	1972
Total Lineal Nautical Miles of Hydrography	215.0
Square Nautical Miles of Hydrography	11.9
Days of Production	17
Detached Positions	61
Bottom Samples	44
Tide Stations	3
Velocity Casts	4

S. MISCELLANEOUS

No anomalous currents or tides were observed during this survey.

Twenty-five (25)

~~Forty-four~~ 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 may be found in the "Survey Separates." *

** Filed with the hydrographic records.*

T. RECOMMENDATIONS (*See EVAL RPT., Sec. T*)

Specific recommendations are made in sections J., N., P., and Q. of this report. No inadequacies, additional work, or further investigations were identified after field work was completed. *Concur.*

U. REFERRAL TO REPORTS

<u>Title</u>	<u>Transmittal Information</u>
Descriptive Report for survey H-10525	N/CG245 (5/94)
Descriptive Report for survey H-10523	N/CG245 (5/94)
Horizontal Control Report for OPR-J223-AHP	N/CG2333 (11/93)
Coast Pilot for OPR-J223-AHP	N/CG244 (5/94)
User Evaluation for OPR-J223-AHP	N/CG (3/94)

Submitted by:



Mark J. McMann
Launch Hydrographer In Charge



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

May 20, 1994

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-10528) of (Pensacola) Perdido Bay, 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°18'30.0"N 087°30'10.0"W 2.0 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



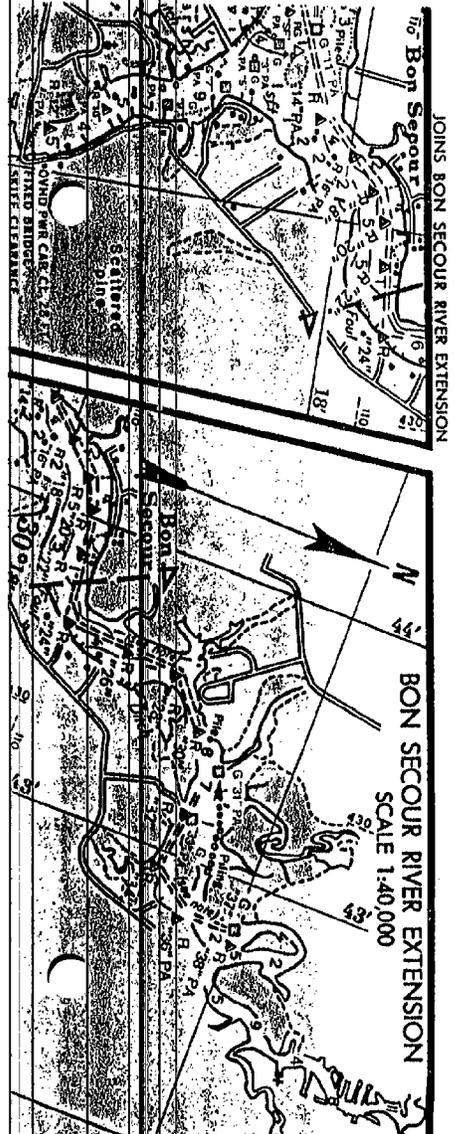
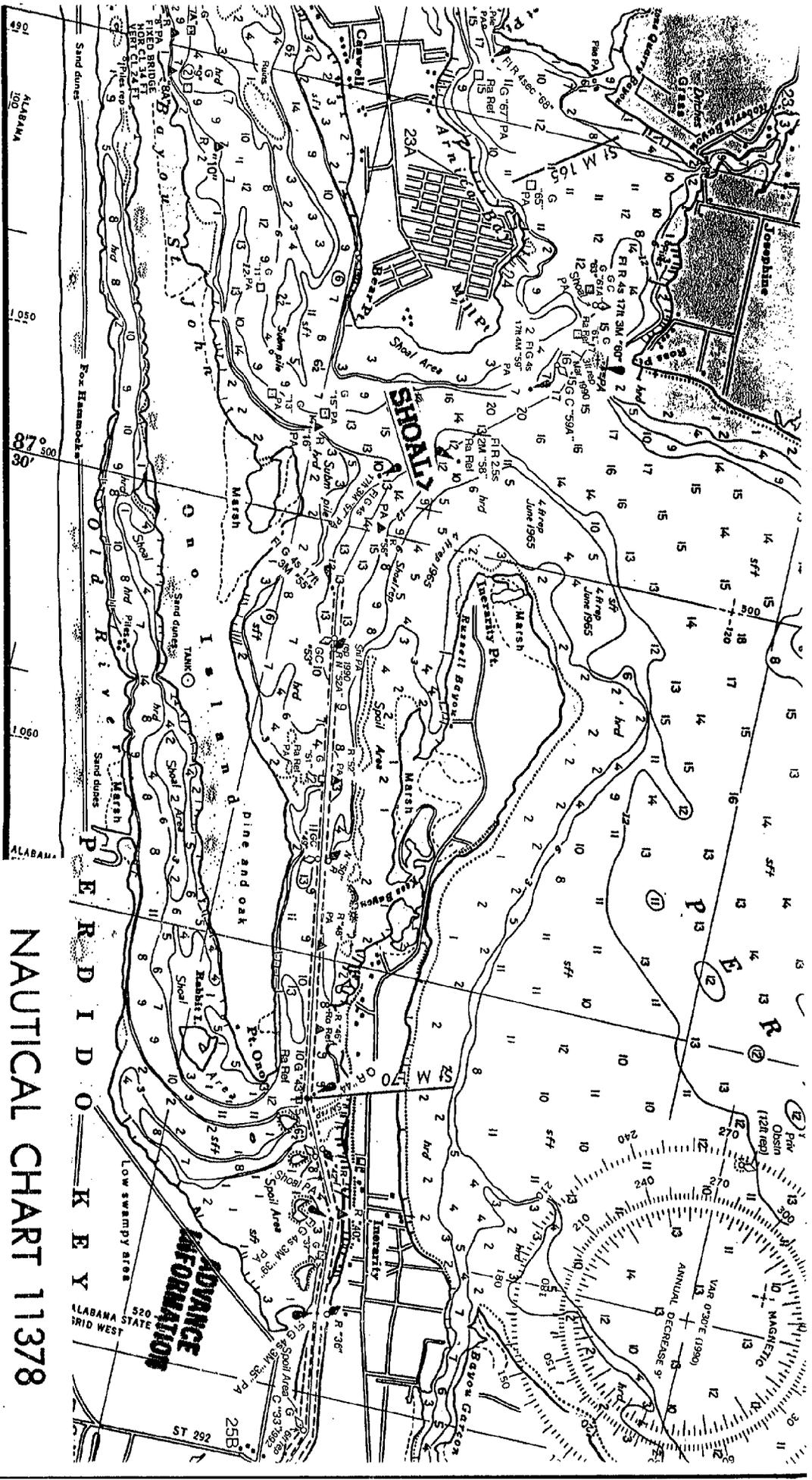
Questions concerning this report should be directed to me at (203) 783-4287 or Mr. Dennis Hill at the Pacific Hydrographic Section, Seattle, WA at (206) 526-6853.

Sincerely,
Mark J. McNamee
FJR

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

Attachment

cc: N/CG221
N/CG245
DMAHTC



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)

ADVANCE INFORMATION

AWOIS NO: 8450 ✓

Item Description: OBSTRUCTION

Source: CL226/68;USPS

AWOIS Position: Lat - 30° 18' 35.00"N, Lon - 87° 27' 17.00"W

Required Investigation: ES

Charts Affected: 11378

INVESTIGATION

Date(s)/DN(s): 3-03-94 / 062 (OPR-J233-AHP, H-10528)

Position Numbers: 106-147 **Launch Number:** 0517

Investigation Used: Echo Sounder

Position Determined By: Ashtech Ranger XII DGPS

Investigation Summary: An echo sounder investigation at 10 meter line spacing was conducted. None of the shoaling was found to be encroaching in the Intracoastal Waterway channel. A shoal on the north side of the channel is oriented NE to SW, not NW to SE as shown on the chart. A page sized plot* of this development is located in the appendix to the descriptive report. The soundings were run through the EXCESS program and plotted on the final field sheet as well.

* Filed with the hydrographic records.

CHARTING RECOMMENDATION

The Hydrographer recommends charting current survey soundings in the area and removing the "Shl rep" note and limit lines. *Concur. Chart 474 1994 at position noted below.*

Recommended Position: various representative soundings from H-10528.

Recommended Least Depth: 1.8³ meters *(shoal depth along the north side of buoy "44")* ^{150 meter SW of} *charted note*
A shallowest depth of 1.9 meters was found w/in the limits of the reported shoaling. depths

***** *in the area is between 1.9 to 3m.* *****

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 8457 ✓

Item Description: OBSTRUCTION

Source: CL180/69

AWOIS Position: Lat - 30° 18' 27.00"N, Lon - 87° 29' 48.00"W

Required Investigation: ES

Charts Affected: 11378

INVESTIGATION

Date(s)/DN(s): 3-29-94 / 088 (OPR-J233-AHP2, H-10528)

Position Numbers: 1849-1890 **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. Three small shoals were located inside the 2-meter contour. These shoals had least depths of 0.6⁹ meter, 0.8³ meter and 1.0⁰ meter. They are located directly on the shoal reported note on the chart. A page sized plot* of this development is located in the appendix to the Descriptive report. Soundings were run through the EXCESS program and plotted on the final field sheet as well.

* Filed with the hydrographic records.

CHARTING RECOMMENDATION

The Hydrographer recommends charting the shoals as located on survey H-10528 and removing the shoal reported note from the chart. *Concur.*

Recommended Position: various representative soundings from H-10528.

Recommended Least Depth: 0.6⁹ meter

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 8526 ✓

Item Description: OBSTRUCTION
Source: LNM19/92--5/21/92, 8TH CGD

AWOIS Position: Lat - 30° 18' 49.00"N, Lon - 87° 25' 50.00"W

Required Investigation: ES

Charts Affected: 11378

INVESTIGATION

Date(s)/DN(s): 3-29-94 / 088 (OPR-J233-AHP2, H-10528)

Position Numbers: 1779-1800 **Launch Number:** 0517

Investigation Used: Echo Sounder

Position Determined By: Ashtech Ranger XII DGPS

Investigation Summary: ^(0.8-1.0m.) An echo sounder investigation was conducted at 10-meter line spacing. Significant shoaling is evident south of buoy 33. This area is charted as a spoil area. A page sized plot* of this development is included in the appendix of the descriptive report. The soundings were run through the EXCESS program and plotted on the final field sheet also.

* Filed with the hydrographic records.

CHARTING RECOMMENDATION

The Hydrographer recommends removing the 6 ft rep. note from the chart and charting representative soundings from H-10528 in this area. *Concur. Retain charted "spoil Area" notation.*

Recommended Position:

Recommended Least Depth:

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 8527 ✓

Item Description: SOUNDING

Source: LNM22/92--7/2/92, 8TH CGD

AWOIS Position: Lat - 30° 18' 40.00"N, Lon - 87° 27' 00.00"W

Required Investigation: ES

Charts Affected: 11378

INVESTIGATION

Date(s)/DN(s): 3-29-94 / 088 (OPR-J233-AHP2, H-10528)

Position Numbers: 1801-1822 **Launch Number:** 0517

Investigation Used: Echo Sounder

Position Determined By: Ashtech Ranger XII DGPS

Investigation Summary: An echo sounder investigation was performed at 10-meter line spacing. Soundings in this area were found shoaler than those charted. A page sized plot of the soundings taken during this investigation is included in the appendix of the descriptive report for H-10528. The soundings were run through the EXCESS program and plotted on the final field sheet also.

(0.6 & 0.8 m.)

** Filed with the hydrographic records.*

CHARTING RECOMMENDATION

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

Recommended Position:

Recommended Least Depth:

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 8528 ✓

Item Description: OBSTRUCTION

Source: LMN47/90--8TH CGD, 11/20/90

AWOIS Position: Lat - 30° 18' 16.00"N, Lon - 87° 29' 25.10"W

Required Investigation: ES

Charts Affected: 11378

INVESTIGATION

Date(s)/DN(s): 3-29-94 / 088 (OPR-J233-AHP2, H-10528)

Position Numbers: 1827-1848 **Launch Number:** 0517

Investigation Used: Echo Sounder

Position Determined By: Ashtech Ranger XII DGPS

Investigation Summary: A 50-meter radius echo sounder investigation was performed at 10-meter line spacing. No evidence of shoaling was found. A page sized plot of the soundings from this investigation is included in the appendix of the descriptive report. The soundings were run through the EXCESS program and plotted on the final field sheet.

* Filed with the hydrographic records.

CHARTING RECOMMENDATION

The Hydrographer recommends removing the "Shoal PA rep 1992" note from the chart. *Concur. Chart the area based on the present survey. Depths of 4.4 to 4.6 meters (14-15 ft) were found in the area of investigation.*

Recommended Position:

Recommended Least Depth:

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 8671 ✓

Item Description: OBSTRUCTION (*Subm pile*)

Source: H5705/35, BP41652--CS349

AWOIS Position: Lat - 30° 18' 07.72"N, Lon - 87° 30' 00.42"W

Required Investigation: BD, ES, DI

Charts Affected: 11378

INVESTIGATION

Date(s)/DN(s): 3-4-94 / 063 (OPR-J233-AHP2, H-10528)

Position Numbers: 148-169 Launch Number: 0517

Investigation Used: Chain Drag

Position Determined By: Ashtech Ranger XII DGPS

Investigation Summary: A 50-meter radius chain drag investigation was conducted at 10-meter line spacing, with 50 feet of line and 60 feet of chain. Nothing was found. A page sized plot* of the trackline is included in the appendix to the descriptive report for H-10528.

Shoal depths of 0.9 m. were found in this area.

** Filed with the hydrographic records.*

CHARTING RECOMMENDATION

The Hydrographer recommends removing the submerged pile note and symbol from the chart. *Concur.*

Chart the area based on the recent survey.

Recommended Position:

Recommended Least Depth:

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 8771 ✓

Item Description: OBSTRUCTION (*piles*)

Source: UNKNOWN

AWOIS Position: 30° 17' 26.00"N 087° 29' 13.00"W

Required Investigation: VS, BD, ES

Charts Affected: 11378

INVESTIGATION

Date(s)/DN(s): 3-16-94 / 075 (OPR-J233-AHP2, H-10528)

Position Numbers: 888-915 Launch Number: 0517

Investigation Used: Echo sounder

Position Determined By: Ashtech Ranger XII DGPS

Investigation Summary: A 50-meter radius chain drag was conducted at 10-meter line spacing with 40 feet of line and 60 feet of chain. Nothing was found. The search radius was limited by piers existing on the east and west sides of the search area, and shallow water on the south side.

CHARTING RECOMMENDATION

The Hydrographer recommends removing the Piles from the chart. *Concur.*

Chart the piers and depths in the area based on the present survey.

Recommended Position:

Recommended Least Depth: *0.6 m (1.9 feet) is the shallowest depth found in the area.*

COMPILATION NOTES

Chart

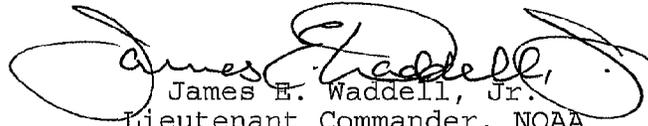
Applied As

APPROVAL SHEET

BASIC HYDROGRAPHIC SURVEY
OPR-J223-AHP
AHP-10-4-94
H-10528
1994

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 descriptive report was 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-10528

LOCALITY: Florida, Pensacola Bay Gulf Beach to Ross Point

TIME PERIOD: February 18 - March 29, 1994

TIDE STATION USED: 872-9962 Perdido Heights, Perdido Bay, Fl.
Lat. $30^{\circ} 23.6'N$ Lon. $87^{\circ} 25.5'W$

PLANE OF REFERENCE (MEAN LOWER LOW WATER): 2.52 ft.
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 0.7 ft.

TIDE STATION USED: 872-9974 Perdido Key, Fl.
Lat. $30^{\circ} 18.2'N$ Lon. $87^{\circ} 26.7'W$

PLANE OF REFERENCE (MEAN LOWER LOW WATER): 3.60 ft.
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 0.8 ft.

TIDE STATION USED: 873-0667 Alabama Point, Perdido Pass, Al.
Lat. $30^{\circ} 16.7'N$ Lon. $87^{\circ} 33.2'W$

PLANE OF REFERENCE (MEAN LOWER LOW WATER): 2.62 ft.
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 0.8 ft.

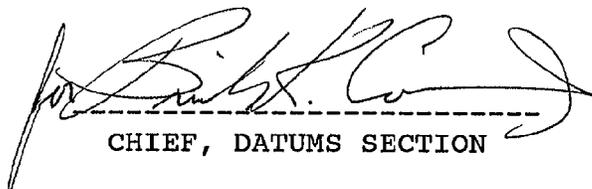


H-10528 (continued)

REMARKS: RECOMMENDED ZONING

1. North of $30^{\circ} 18.9'N$, apply a -30 minute correction to all times, and heights are direct on Perdido Heights, Fl. (872-9962).
2. South of $30^{\circ} 18.9'N$ and east of $87^{\circ} 29.9'W$, times and heights are direct on Perdido Key, Fl. (872-9974).
3. South of $30^{\circ} 18.9'N$ and west of $87^{\circ} 29.9'W$, times and heights are direct on Alabama Point, Al. (873-0667).

Note: Times are tabulated in Central Standard Time.


CHIEF, DATUMS SECTION

GEOGRAPHIC NAMES

Name on Survey	ON CHART NO. 11378										
	A	B	C	D	E	F	G	H	K		
	ON PREVIOUS SURVEY NO.	CON U.S. QUADRANGLE MAPS	FROM LOCAL INFORMATION	ON LOCAL MAPS	P.O. GUIDE OR MAP	GRAND McNALLY ATLAS	U.S. LIGHT LIST				
ALABAMA (title)	X		X								1
BAYOU GARCON	X		X								2
BAYOU SAINT JOHN	X		X								3
BEAR POINT	X		X								4
FLORIDA (title)	X		X								5
FOX HAMMOCKS (locale)	X				(BGN Pending)						6
GULF BEACH (locale)	X		X								7
INERARITY (locale)	X				(BGN Pending)						8
INERARITY POINT	X		X								9
KEES BAYOU	X		X								10
MILL POINT	X		X								11
OLD RIVER	X		X								12
ONO ISLAND	X		X								13
ONO, POINT	X		X								14
PERDIDO BAY	X		X								15
PERDIDO KEY	X		X								16
RABBIT ISLAND	X		X								17
ROSS POINT	X		X								18
RUSSELL BAYOU	X		X								19
											20
											21
											22
											23
											24
											25

Approved

Charles C. Cloy

Chief Geographer

JUN 9 1995

HYDROGRAPHIC SURVEY STATISTICS

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					
CAMBIERS					
BOXES					

SHORELINE DATA (Hatched area)

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			1972	
POSITIONS REVISED				
SOUNDINGS REVISED				
CONTROL STATIONS REVISED				
(Hatched area)	TIME-HOURS			
	VERIFICATION	EVALUATION	TOTALS	
PRE-PROCESSING EXAMINATION				
VERIFICATION OF CONTROL				
VERIFICATION OF POSITIONS	62.0		62.0	
VERIFICATION OF SOUNDINGS	59.0		59.0	
VERIFICATION OF JUNCTIONS				
APPLICATION OF PHOTOBATHYMETRY				
SHORELINE APPLICATION/VERIFICATION				
COMPILATION OF SMOOTH SHEET	146.0		146.0	
COMPARISON WITH PRIOR SURVEYS AND CHARTS		18.0	18.0	
EVALUATION OF SIDE SCAN SONAR RECORDS				
EVALUATION OF WIRE DRAGS AND SWEEPS				
EVALUATION REPORT		30.0	30.0	
GEOGRAPHIC NAMES				
OTHER				
*USE OTHER SIDE OF FORM FOR REMARKS	TOTALS	267.0	48.0	315.0

Pre-processing Examination by L.T. M. Larsen	Beginning Date 5/27/94	Ending Date 6/20/94
Verification of Field Data by I. Almacén, J. Stringham, D. Doles, L. Deodato	Time (Hours) 267.00	Ending Date 8/2/95
Verification Check by I. Almacén	Time (Hours) 6.0	Ending Date 4/20/95
Evaluation and Analysis by I. Almacén	Time (Hours) 48.0	Ending Date 8/4/95
Inspection by Bruce Olmstead	Time (Hours) 28	Ending Date 10/20/95

EVALUATION REPORT

H-10528

A. PROJECT

Project information is discussed in the hydrographer's report.

B. AREA SURVEYED

This survey was conducted in the southern section of Perdido Bay, Florida/Alabama, and the area around Ono Island. It also includes the Intracoastal Waterway system from Inerarity up along the channel between Inerarity Point and Ono Island. The bottom is generally made up of sand and mud mixed with broken shells. Depths range from 0.4 to 6.7 meters.

C. SURVEY VESSELS

Survey vessel information is found in the hydrographer's report.

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 (extension) and enhanced using the AutoCad system, is filed both in the AutoCad drawing format, i.e., .dwg (extension); 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 unrevised 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 the 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-10528.

F. SOUNDING EQUIPMENT

Sounding equipment is discussed in the hydrographer's report.

G. CORRECTIONS TO SOUNDINGS

The sounding data have been reduced to Mean Lower Low Water (MLLW). The reducers include corrections for actual tide, dynamic draft, and sound velocity. These reducers have been reviewed and are consistent with present NOS specifications. Actual tide reduction is derived from Perdido Heights, Florida gage (872-9962), Perdido Key, Florida gage (872-9974) and Alabama Point, Perdido Pass, Alabama gage (873-0667). Refer to the tide note attached to this report concerning recommended tidal zoning.

H. CONTROL STATIONS

Sections H and I of the hydrographer's descriptive report contain adequate discussions of horizontal control and the hydrographic positioning. The positions of horizontal control stations used during hydrographic operations are field values based on NAD 83. The geographic positions of all survey data are also based on NAD 83. The smooth sheet is annotated with an NAD27 adjustment tick based on values determined with NGS program NADCON

Data based on NAD 27 may be referenced to this survey by applying the following corrections:

Latitude: 0.723 second (22.276 meters)
Longitude: -0.075 second (-2.006 meters)

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

I. HYDROGRAPHIC POSITION CONTROL

Differential GPS (DGPS) was used to control this survey. There are nine (9) positions where the maximum allowable horizontal dilution of precision (HDOP) limits of 3.75 have been exceeded during this survey. A review of the data, however, shows that the positioning of soundings located by these fixes is consistent with the surrounding information and is considered acceptable. None of these survey positions are used to locate dangers to navigation. Daily DGPS performance checks were conducted in the field and found adequate.

J. SHORELINE

The applicable shoreline manuscripts for this survey are TP-00542 and TP-00543 compiled on NAD27 datum. TP-00543 was compiled based on a 1992 cartographic revision survey (CRS#149965) covering the area at the scale of 1:20,000 and photographically enlarged to the scale of 1:10,000. Revisions to cultural features attached to the mean high water line particularly wooden piers were shown in red when supported by positional information. Numerous wooden piers mostly with covered slips were found in the area. The approximate high water line defining the small channels around Ono Island are depicted in dashed red lines on the smooth sheet. Further information concerning new shoreline features located during this survey is included in the hydrographer's report.

K. CROSSLINES

Crosslines are discussed in the hydrographer's report.

L. JUNCTIONS

Survey H-10528 junctions with the following survey.

<u>Survey</u>	<u>Year</u>	<u>Scale</u>	<u>Area</u>
H-10525	1993-94	1:10,000	West
H-10526	1994	1:10,000	North
H-10523	1993-94	1:10,000	East

The junctions with surveys H-10523, H-10525 and H-10526 are complete and the soundings are in satisfactory agreement.

M. COMPARISON WITH PRIOR SURVEYS

H-5705 (1935) 1:10,000
H-5706 (1934-35) 1:10,000
H-5833 (1935) 1:20,000

Surveys H-5705, H-5706 and H-5833 were the only surveys of the area undertaken by the USC&GS since 1935. The sounding agreement is considered satisfactory. The present survey appears to be generally shoaler by about 0.5 to 1.0 meter in most areas particularly between Ross Point and Inerarity Point where the bottom was noted to have changed due to silting around the bay.

The following specific items were noted for additional comment.

The portions of prior survey H-5706 shown as "Shoal Area" were covered during this

survey. These areas were found to be between 0.5 to 1.0 meter in depth at the present time.

The small island shown on survey H-5706 at latitude 30/17/23N, longitude 87/29/57W, is now connected to the south shore of Ono Island as depicted on shoreline map TP-00543.

Prior survey H-5706 shows two (2) small islands off Ono Point. However, on this survey four (4) small islands were found around the area as depicted on the recently compiled shoreline map TP-00543.

H-10528 is adequate to supersede the prior surveys within the common area.

N. ITEM INVESTIGATIONS

There are eight (8) AWOIS item investigations conducted within the area of this survey. AWOIS 8671 originates with prior survey H-5705. The remaining seven AWOIS items originate with miscellaneous sources. All items have been adequately discussed and disposed of in the hydrographer's report.

O. COMPARISON WITH CHART

Survey H-10528 was compared with the following chart.

<u>Chart</u>	<u>Edition</u>	<u>Date</u>	<u>Scale</u>	<u>Datum</u>
11378	26th	Sept. 5, 1992	1:80,000	NAD83
11378	27th	May 7, 1994	1:80,000	NAD83

a. Hydrography

Charted hydrography originates with the previously mentioned prior surveys and miscellaneous sources which requires no further discussion.

The charted hydrography is in satisfactory agreement with survey H-10528. The present survey appears to be generally shoaler particularly around the southern portion of Perdido Bay. Further information concerning other chart discrepancies noted during this survey is included in section O of the hydrographer's report.

The Intracoastal Waterway is a federally maintained channel located within the area of the survey. The depths found during this survey are consistent with or deeper than the charted controlling depth.

The overhead cable extending across Rabbit Island and the submerged pipeline in the vicinity of Old River depicted on the shoreline map TP-00543 were not investigated during this survey. It is recommended that these features be charted as shown on the smooth sheet.

The cable area in the vicinity of latitude 30/18/47N, longitude 87/26/23W, was not investigated during this survey, however, the cable crossing signs on both sides of the channel were located by the hydrographer. It is recommended that a "Cable Area" note be charted to indicate the cable area between the crossing signs.

Survey H-10528 is adequate to supersede charted hydrography within the common area of coverage.

P. ADEQUACY OF SURVEY

Except as noted elsewhere in this report, the hydrography on survey H-10528 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 Procedure Manual, April 1994 Edition.

Survey H-10528 adequately complies with the project instructions.

Q. AIDS TO NAVIGATION

There are forty-four (44) fixed and floating aids to navigation located within the survey area. Fifteen (15) of these aids are privately maintained. A complete listing of all these aids is included in section Q of the hydrographer's report.

The following changes were noted during the comparison between this survey and the 27th edition of chart 11378.

- a. Daybeacons "55" and "58" located during this survey were replaced by Pensacola-Mobile Light "55" and Pensacola-Mobile Light "58" respectively on the latest edition of the chart.
- b. Lighted buoy "44" located during this survey was replaced by Pensacola-Mobile Light "44" on the latest edition of the chart.
- c. Buoy "39A" positioned during this survey was not depicted on the latest edition of the chart.

d. The "temp buoy" positioned beside Pensacola-Mobile Light "35" was not shown on the latest edition of the chart.

e. Bayou St. John daybeacon "16" located during this survey was replaced by Bayou St. John Light "18" on the latest edition of the chart.

f. Bayou St. John daybeacon "15" located during this survey was renumbered to "17" on the latest edition of the chart.

g. Bayou St. John daybeacon "13" located during this survey was renumbered to "15" on the latest edition of the chart.

h. Two additional buoys (G"1" and R"2") were installed after this survey in the vicinity of latitude 30/18/42N, longitude 87/26/28W, and shown on the latest edition of the chart.

It was also noted during the comparison with the 1994 and 1995 Coast Guard Light List (Volume IV) that the published position of buoy "52A" was in error. The listing should read "30 18.3, 87 29.4" as the position of the buoy instead of "30 18.3, 87 24.4".

The two charted landmarks (tanks) located within the area of this survey were not investigated. These landmarks should be retained as charted.

R. STATISTICS

Statistics are itemized in the hydrographer's report.

S. MISCELLANEOUS

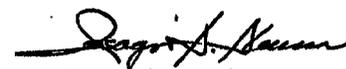
Miscellaneous information is discussed in the hydrographer's report. A danger to navigation report was transmitted to the USCG during this survey. A copy of this report is attached. No other additional miscellaneous items were noted during office processing.

T. RECOMMENDATIONS

This is a good hydrographic survey. However, additional field work may be required on a non-priority basis to adequately confirm the recent changes mentioned in section Q of this report concerning aids to navigation in the area as depicted on the latest edition of the chart.

U. REFERRAL TO REPORTS

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


Isagani A. Almacan
Cartographer

APPROVAL SHEET
H-10528

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 Alan Olmstead Date: 10/20/95
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: 10/25/95
Kathy Timmons
Commander, NOAA
Chief, Pacific Hydrographic Branch

Final Approval

Approved:

Andrew A. Armstrong III Date: 11/7/95
Andrew A. Armstrong III
Captain, NOAA
Chief, Hydrographic Surveys Division

