

H10526

NOAA FORM 76-35A

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

**DESCRIPTIVE REPORT**

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Type of Survey ..... Hydrographic  
Field No. .... AHP-10-02-94  
Office No..... H-10526

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**LOCALITY**

State ..... Florida/Alabama  
General Locality ..... Perdido Bay  
Locality ..... Nix Point to Red Bluff

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19 94  
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**CHIEF OF PARTY**  
..... LT James E. Waddell, Jr., NOAA

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**LIBRARY & ARCHIVES**

DATE ..... JUN 21 1995

HYDROGRAPHIC TITLE SHEET

H-10526

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-10-02-94

State Florida/Alabama

General locality Perdido Bay

Locality Nix Point to Red Bluff

Scale 1:10,000 Date of survey January 26 - March 16, 1994

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

Vessel 0519

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

Surveyed by Robert W. Ramsey Jr.

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

Graphic record scaled by RWR, LAM, CEP, DBE

Graphic record checked by RWR, LAM, CEP, DBE

Evaluation by: R. Davies Automated plot by H.P. Design Jet 650L

~~Processed by~~ R. Davies

Verification by R. Davies

Soundings in ~~fathoms~~ ~~feet~~ at ~~MSL~~ 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.

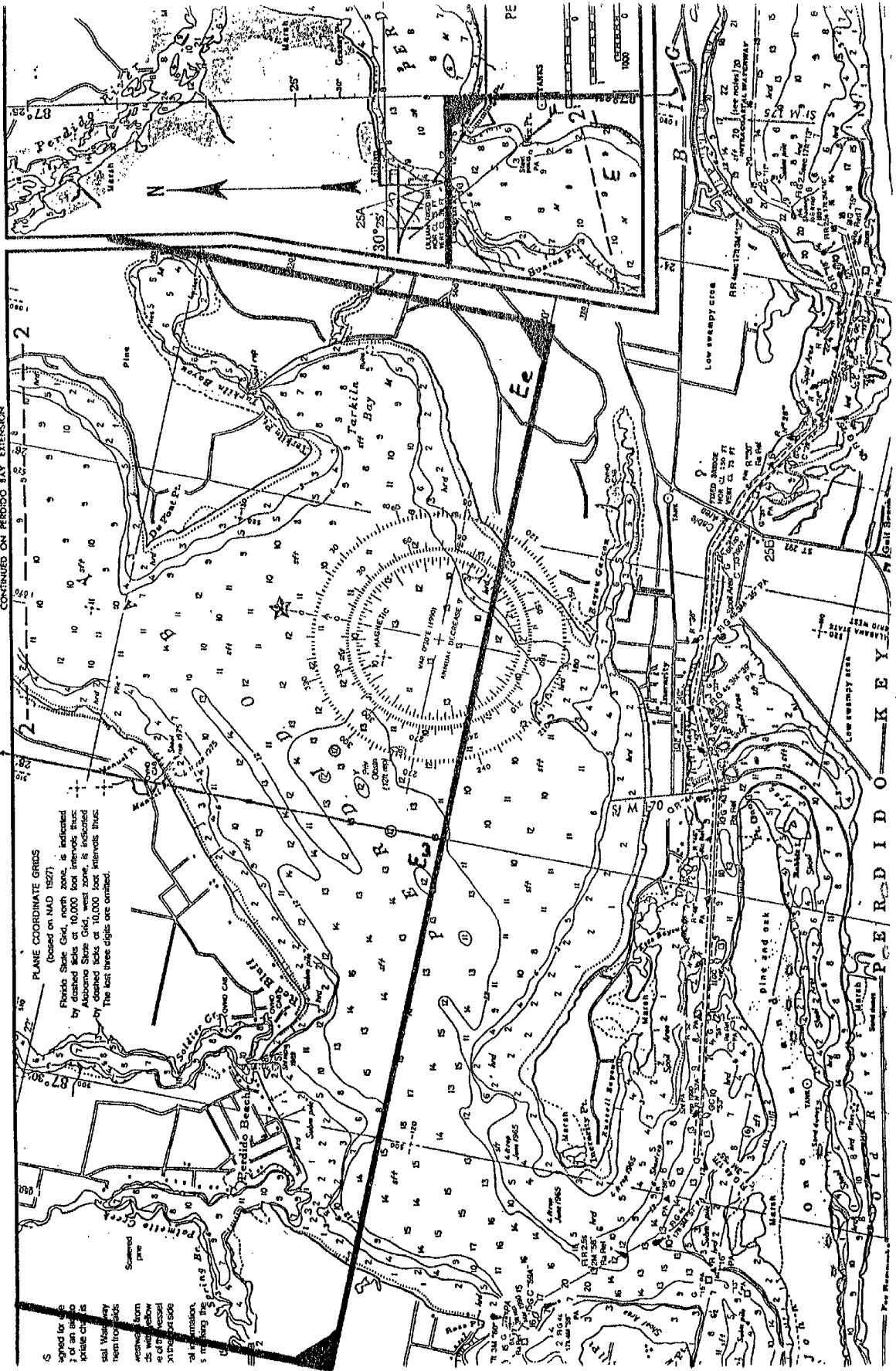
All depths listed in this report are referenced to mean lower low water unless otherwise noted.

Awois/surf chk 8/15/95  
MLR

\* Change No. 1 dated Jan. 4, 1993/ Change No. 2, dated Oct. 13, 1993

30 1-2-97  
6/21/95

CONTINUED ON PERDIDO BAY EXTENSION



PLANE COORDINATE GRIDS

(based on MAD 1927)  
Florida State Grid, north zone, is indicated by dashed ticks at 10,000 foot intervals thus:  
Alabama State Grid, west zone, is indicated by dotted ticks at 10,000 foot intervals thus:  
The last three digits are omitted.

Signed for use  
of an  
plane  
ticks  
sal. Waterway  
near  
received from  
is with  
of the vessel  
at  
of information  
is to be kept

PERDIDO KEY

Old Highway  
Community area  
Low swampy area  
Pine and oak  
TANK  
MARK

DESCRIPTIVE REPORT TO ACCOMPANY  
HYDROGRAPHIC SURVEY H-10526

FIELD NO. AHP2-10-2-94

SCALE: 1:10,000

1993

ATLANTIC HYDROGRAPHIC PARTY TWO  
CHIEF OF PARTY: LCDR James E. Waddell Jr., NOAA

A. PROJECT ✓

This survey was conducted according to Hydrographic Project Instructions OPR-J223-AHP, Pensacola and Perdido Bays, Florida and Alabama, dated September 25, 1993; change No.1 dated January 4, 1993; and Change No. 2 dated October 13, 1993.

The purpose of project OPR-J223-AHP is to provide contemporary hydrographic surveys for updating nautical charts in Pensacola and Perdido Bays, Florida. The area was last surveyed in 1935 by the Coast and Geodetic Survey using lead line methods. The project area is traversed by vessels and barges containing grains, soybeans, cypress logs, petroleum, seafood and various other products.

The sheet letter is "E" as specified by the project instructions.

B. AREA SURVEYED ✓ See Eval Rpt, section 1

The area surveyed for H-10526 covers Perdido Bay, Florida and Alabama, from Nix Pt. to Red Bluff. The approximate survey limits are as follows:

North :  $30^{\circ}24.2^{\prime}11''$  N  
South :  $30^{\circ}20.0^{\prime}08''$  N  
East :  $087^{\circ}24.3^{\prime}49''$  W  
West :  $087^{\circ}31.6^{\prime}24''$  W

This survey was conducted from 26 January 1994 (DN 026) to 16 March 1994 (DN 075).

C. SURVEY VESSEL ✓

Launch 0519 (EDP No. 0519), a 21-foot MonArk, was used to collect all survey data. There were no unusual vessel configurations nor problems encountered.

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

Version 4.03 of the PC-DAS programs were used for on-line data acquisition. A list of all HP-DPS programs and versions used for data processing are appended. The NOS program VELOCITY (Ver. 2.0) and WordPerfect (Ver. 6.0) were also used during this survey.

#### E. SONAR EQUIPMENT ✓

Not Applicable.

#### F. SOUNDING EQUIPMENT ✓

An Innerspace model 448 depth sounder, S/N 186, was used to collect all echo soundings on this survey.

A standard lead line calibrated in meters, S/N 0519, was used during this survey for comparison readings with the echo sounder. A five-meter wooden sounding pole, constructed according to HSG No. 69, was used to obtain all pole soundings.

No problems were encountered with the sounding equipment.

#### G. CORRECTIONS TO ECHO SOUNDINGS ✓

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 Days</u>	<u>Position</u>	<u>Cast Day</u>
10	10	5.2	041	30°20'00"N 87°28'00"W	041
12	12	5.2	045-047	30°20'15"N 87°29'00"W	046
14	14	5.2	054-055	30°20'00"N 87°29'00"W	054
16	16	5.2	061-062	30°20'42"N 87°27'58"	061

18	18	5.2	066-067	30°24'00"N 87°25'45"W	067
20	20	7.8	073-075	30°23'42"N 87°26'36"W	074

Corrections for the speed of sound through the water column were computed from data obtained with an Odom Hydrographic Systems Digibar, model DB1100, speed of sound probe, S/N 155. This instrument was calibrated by the manufacturer on May 3, 1993 and data quality assurance tests were performed before each cast. Program VELOCITY was used for computing the speed of sound correctors. Speed of sound corrections were applied to the sounding plot using the HDAPS REAPPLY program. Copies of the tables used and the support documentation are in the Survey Separates. \*

Lead line comparisons were taken daily to determine echo sounder error. No echo sounder error was observed. The lead line comparison logs are in the Survey Separates. \* The lead lines were calibrated using a steel tape on November 19, 1993 for launch 0519. No corrections were necessary. A copy of the calibration form is in the Survey Separates. \*

A static draft of 0.3 meters was applied to the final sounding plot by the HDAPS REAPPLY program. The draft was measured by subtracting the difference from a punch mark on the side of launch 0519, 0.6 meters above the transducer, to the water surface.

Settlement and squat measurements for launch 0519 were determined on November 19, 1993 (DN 323). These measurements were conducted at the Blue Angel Park pier in Perdido Bay, Florida, using the level method. Data from this test are included in the Survey Separates. \* Settlement and squat correctors were applied to the final sounding sheet using the HDAPS REAPPLY program.

Predicted tides for this project were provided on diskette by N/OES231 for the Pensacola, Florida reference station 872-9840. The correctors that we applied to sheet "E" were 3 hours 30 minutes for both high and low water and a range ratio of 0.55. These correctors are designated in section 5.9 of the project instructions. Approved water levels were requested from the Product and Services Branch, Datums Section, N/OES231, in a letter dated March 24, 1994. A copy is appended to this report. \* Approved Tide Note dated May 11, 1994 is attached.

#### H. CONTROL STATIONS ✓ See Eval Rpt, Section 2

The horizontal control datum for this project is the North American Datum of 1983. Two horizontal control stations, EDEN 1993 (004) and Cal2 1993 (006) were used on this survey. These stations were established to third-order, class I standards with GPS by AHP personnel in November 1993. The Horizontal Control Report was submitted to N/CG2333 on November 30, 1993.

\* Filed with the hydrographic data.

Station 004 served as our GPS reference station and station 006 was used as the launch performance checkpoint. Positions for these stations are shown on the Control Station list appended to this report.

## I. HYDROGRAPHIC POSITION CONTROL ✓

Differential GPS (DGPS) was used for all hydrographic data acquired on this survey. Ashtech M-XII receiver (S/N 700157E1075) and antenna (S/N 700271A0064) were used for the reference station. An Ashtech Sensor (S/N 700417B1207) with antenna (S/N 700378A0467) was used as the remote station on launch 0519. TAD VHF radios were used as the data link between the base station receiver and the launch sensor. The primary GPS reference station (004) was set at the Eden Condominium on Perdido Key, Florida. Prior to using reference station (004), program MONITOR was run for this site to check its susceptibility to multi-path problems. This test indicated 100% availability at a 1:10,000 survey scale. Results of this test are included in the Survey Separates.\*

In addition to the radio data link the New Orleans Beacon Transmitter at English Turn, Louisiana, located at 29°52'43.878"N, 089°56'31.380"W, was used intermittently when the radio data link could not be received. Beacon receiver (S/N X-1090) and antenna (S/N MBA-M1040) were used. While the switching between positioning systems was not documented, the beacon receiver was compared to the radio data link on numerous occasions alongside of piles and piers previously positioned by the VHF radio data link and found to be in total agreement. Performance checks were likewise compared at the calibration points for both methods of electronic positioning and no discrepancies were noted.

Daily DGPS performance checks were conducted in accordance with FPM 3.4.4 by comparing the DGPS position of the vessel to our computed third-order position of Cal 2, in Lillian, Alabama. To obtain a performance check, the launch was brought alongside the checkpoint and the Easting, Northing, number of SVs, HDOP, and time of observation were noted in the Daily Log Book. These values were then entered into a Lotus spreadsheet table which would compute the acceptable error margin based on the HDOP and also the difference between our known and observed position. The table of these comparisons is included in the Survey Separates.\* All of the observed differences fell well within the allowable limit.

While collecting data near the eastern shorelines of Soldier and Palmetto Creeks, occasional high HDOP values were encountered. This was caused by the loss of satellites. These areas were edited by hard smoothing. See Eval Rpt, section 2.

## J. SHORELINE See EUNAC Report, section 2

Because this project was team processed with the Pacific Hydrographic Section, there was no final field sheet for H-10526. The shoreline was transferred by hand from TP-00539 (CRS No. 0001593), TP-00542 (CRS No. 0001793) and TP-00543 (CRS No. BP-149965) to the sounding

\* Filed with the hydrographic data.

plot in black ink, with changes shown in red ink. Shoreline verification was accomplished by comparing near-shore hydrographic data and by visual inspection. The reference number descriptions, field notes, and explanations of new shoreline features are on the graphic records, in the log book and/or on the boat sheet.

Two shoreline changes\* were noted on this survey. The point on the eastern side of the entrance to Soldier Creek extends further seaward than shown on the T-map. This point now extends to 30°20'49.21"N, 087°29'41.76"W, position 634. Likewise, DuPont Point was found extending further seaward than shown on the T-map. The point now extends to 30°21'55.24"N, 087°26'34.75"W, position 74. These areas are shown in red on the sounding plot. <sup>dashed</sup> \* There are several additional revisions that have been portrayed on the smooth sheet in dashed red.

**Recommendation:** Shoreline shown on the Cartographic Revision Surveys and changes shown on the sounding plot submitted with this survey should supersede currently charted shoreline. All changes are listed in section 2 of EVMC Report. CONCUR

#### K. CROSSLINES ✓

A total of 18.75 linear nautical miles of crosslines were run, which represents approximately 17.5% of the main scheme hydrography. Cross line soundings agree with the main scheme soundings within 0.3 meters. Unusual high or low water levels were noted by the hydrographer after periods of sustained north or south winds, and/or periods of heavy rainfall. Water levels were abnormally high on days 041, 054, 061, 074, and 075. No unusual anomalies were seen with the application of approved tides.

#### L. JUNCTIONS ✓ See Eval Rpt, section 5

This survey junctions with H-10521 to the north, a 1:10,000 scale survey from OPR-J223-AHP completed in January 1994. No overlap lines were run because both H-10521 and this survey were completed by the same survey vessel, during the same year. This survey junctions to the south with H-10528, a 1:10,000 scale survey from OPR-J223-AHP, completed in March 1994.

Junction soundings between the present survey and H-10521 are in good agreement, with differences of 0.2 meters or less. A comparison with H-10528 was not done in the field because soundings from H-10528 were not available during final field processing of this survey. <sup>SEE EVMC Report, Section 5</sup> Comparison with junctional survey H-10528 reveals .2 to .3 meter differences. Most of these differences can be attributed to abnormal weather conditions as cited in section K.

#### M. COMPARISON WITH PRIOR SURVEYS SEE EVMC Report, section 6

Prior survey comparison will be completed by the Pacific Hydrographic Section.

#### N. ITEM INVESTIGATION REPORTS

There were nine AWOIS item investigations assigned to H-10526. The item investigation reports are appended.



O. COMPARISON WITH THE CHART - See Eval Rpt, Section 7

Comparison was made with the following charts:

<u>Chart No.</u>	<u>Edition</u>	<u>Edition Date</u>
11378	26th	Sept. 5, 1992
11382	34th	March 27, 1993 (No soundings)
11378	27 <sup>th</sup>	MAY 7, 1994

There were no dangers to navigation identified on this survey.

In general soundings from this survey are within 0.3<sup>0.9</sup> meters of those charted, except in the areas which were sounded during periods of abnormal water levels caused by weather conditions.

**Recommendation:** The soundings from this survey should supersede charted soundings in the common areas. *concur*

In the discussions which follow, all elevations on point features are given at Mean Lower Low Water unless otherwise noted. All positions on features which are connected to shore, e.g. piers, represent the seaward position of the feature.

A new pier exposed 2 meters was located at 30°21'17.30<sup>3</sup>"N, 087°30'42.74"W, position 37. The hydrographer recommended that this feature be added to the chart. *concur* ✓  
*Drawn in red on sounding plot.*

A new boat house exposed 4 meters was located at 30°21'29.39"N, 087°30'45.75"W, position 38. The hydrographer recommends this feature be added to the chart. *Do not concur*  
*This feature was not added to the sounding plot because of scale. The pier which the boat house is attached to is on the shoreline map and will be charted.*

A new pier exposed 3 meters was located at 30°20'39.71"N, 087°30'24.05"W, position 39. The hydrographer recommends this feature be added to the chart. *concur*  
*Drawn in red on sounding plot.*

A private maintained marker exposed 3 meters at MHW was located at 30°20'13.13"N, 087°30'32.76"W, position 40. The hydrographer recommends this feature be added to the chart. *concur*  
*R "4"*

A private maintained marker exposed 3 meters at MHW was located at 30°20'16.16"N, 087°30'31.71"W, position 41. The hydrographer recommends this feature be added to the chart. *concur*  
*R "6"*

A private maintained marker exposed 3 meters at MHW was located at 30°20'17.30"N, 087°30'31.40"W, position 42. The hydrographer recommends this feature be added to the chart. *concur*  
*R "8"*

A private maintained marker exposed 3 meters at MHW was located at 30°20'37.51"N, 087°29'37.44"W, position 44. The hydrographer recommends this feature be added to the chart. *concur*  
*priv marker*

A private maintained marker exposed 3 meters at MHW was located at 30°20'42.80"N, 087°29'38.26"W, position 45. The hydrographer recommends this feature be added to the chart. *concur*  
*R "4"*

A private maintained marker exposed 3 meters at MHW was located at 30°20'42.89"N, 087°29'38.97"W, position 46. The hydrographer recommends this feature be added to the chart. *CONCUR*  
G "5"

A private maintained marker exposed 3 meters at MHW was located at 30°20'43.91"N, 087°29'39.16"W, position 47. The hydrographer recommends this feature be added to the chart. *CONCUR*  
R "6"

A private maintained marker exposed 3 meters at MHW was located at 30°20'45.06"N, 087°29'40.55"W, position 48. The hydrographer recommends this feature be added to the chart. *CONCUR*  
G "7"

A private maintained marker exposed 3 meters at MHW was located at 30°20'47.63"N, 087°29'41.74"W, position 49. The hydrographer recommends this feature be added to the chart. *CONCUR*  
R "8" *See Attached 76-40 for all above aids.*

A new pier with covered boat slip exposed 4 meters was located at 30°22'12.63"N, 087°29'53.46"W, position 51. The hydrographer recommends that this feature be added to the chart. *CONCUR*  
*Drawn in red on sounding plot.*

A new pier exposed 2 meters was located at 30°22'15.60"N, 087°<sup>30 01.38</sup>~~29~~25.03"W, position 52. The hydrographer recommends that this feature be added to the chart. *CONCUR*  
*Drawn in red on sounding plot.*

A new T-pier, exposed 4 meters was located at 30°20'45.00"N, 087°29'25.03"W, position 54 (east end of T) and 30°20'45.76"N, 087°29'25.49"W, position 55, (west end of T). The main portion of the pier extends perpendicular from the "T" center point, to shore. The hydrographer recommends that this feature be added to the chart. *CONCUR*  
*Drawn in red on sounding plot.*

The entrance to Manuel Bayou at 30°21'35.22"N, 087°27'56.21"W, was found to be closed to navigation for vessels drawing greater than 0.3<sup>4</sup> meter, position 56. The hydrographer recommends that the charted "Shoaling Rep 1975" note be deleted and the charted "4 ft rep 1975" be changed to "1 ft 1994". *CONCUR*

A 75-meter radius diver search was conducted for a charted pile at 30°21'57.88"N, 087°27'21.94"W, position 65. No pile was found. The hydrographer recommends that this pile be removed from the chart. *CONCUR*

A foul limit line was run, positions 67-71, around the seaward limit of an area containing numerous piles located in the vicinity of 30°23'20.00"N, 087°25'45.40"W. The hydrographer recommends that this foul limit be applied to the chart. This feature is believed to be related to AWOIS No. 8672. *CONCUR*

A concrete pile <sup>uncovers 2.9</sup> exposed 3 meters, was located at 30°22'34.66"N, 087°25'32.85"W, position 72. This item represents the southern limit of U.S. Navy property. The hydrographer recommends that this pile be added to the chart. *CONCUR*

A new pier with a boat house, exposed 2 meters, was located at 30°22'06.45"N, 087°25'59.68"W, position 73. The hydrographer recommends that a pier be charted at this position. *Drawn in red on sounding plot.*

*Concur*

P. ADEQUACY OF SURVEY ✓

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

*Concur*

Q. AIDS TO NAVIGATION See EVAC Report section 7.

There are no fixed nor floating aids to navigation maintained by the U.S. Coast Guard that lie within the survey area. *See attached NMA form 76-40 for charting recommendations. Concur for nine private maintained aids to navigation.*

A new submerged communication cable crossing was located between 30°21'20.47"N, 087°29'51.45"W, position 50, and 30°21'20.35"N, 087°29'43.86"W, position 53. The hydrographer recommends that this cable crossing be added to the chart. ✓ *Concur*

On February 1, 1994 (DN 032) and February 2, 1994 (DN 033) the overhead cable crossings located in Soldier Creek were found at points defined by reference numbers 38 and 42. The hydrographer recommends that they be retained as charted. *Concur*

*Approx. lat. 30/20/58N, long. 87/29/25W and lat. 30/20/44N, long. 87/29/22W.*

The overhead cable, reference number 49, charted in Manuel Bayou was visually verified as charted. The hydrographer recommends that this cable be retained as charted. *Concur*

R. STATISTICS ✓

<u>Description</u>	<u>Quantity</u>
Total Number of Positions	1916
Total Linear Nautical Miles of Hydrography	168.8
Square Nautical Miles of Hydrography	9.5
Days of Production	20
Detached Positions	30
Bottom Samples	36
Tide Stations	3
Velocity Casts	6

S. MISCELLANEOUS ✓

Bottom samples were taken and submitted to the Smithsonian Institution as directed in Section 6.7 of the project instructions. Bottom sample positions are plotted on the overlay submitted with this survey 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>
Descriptive Report to Accompany Survey H-10521	Pacific Hydrographic Section N/CG245, Seattle, WA (1/26/94)
Descriptive Report to Accompany Survey H-10528	Pacific Hydrographic Section N/CG245, Seattle, WA (1994)
Horizontal Control Report for OPR-J223-AHP	Pacific Photogrammetric Party N/CG2333, Seattle, WA (11/30/93)
User Evaluation Report for OPR-J223-AHP	Atlantic Hydrographic Section N/CG244, Norfolk, VA (March 1994)
Coast Pilot Report for OPR-J223-AHP	Atlantic Hydrographic Section N/CG244, Norfolk, VA (April 1994)

Submitted by: Robert W. Ramsey  
Launch Hydrographer-in-charge  
Atlantic Hydrographic Party

\* Filed with the hydrographic data.

AWOIS NO:8530 ✓

Item Description: Obstruction

Source: LNM38/90--9/18/90, 8th CGD

AWOIS Position: Lat - 30/20/19.00N Lon - 087/27/29.00W

Required Investigation: VS, SD, ES, DI -- 100m radius

Charts Affected: 11378

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**INVESTIGATION**

Date(s)/DN(s): 02/03/94 (DN:034)

Position Numbers: 63

Launch Number: 0519

Investigation Used: VS, DI

Water Visibility: 1m

Position Determined By: DGPS

Investigation Summary: No visual identification could be made on the charted Priv Bouy. Contacted USCG ATON Pensacola Florida for information, 1/31/94, the following was obtained: Owner US Navy, reported to be "6NR", yellow in color, used as a training bouy. USCG tried to locate bouy on 27 October 1992, with no contact made. The USCG Aux. tried to locate said bouy on May 1993, with no contact made. AHP conducted diver investigation with 100 meter circle search on 2/03/94, the following was noted: No snags were encountered during a circle search of this area with relief above the bottom. The bottom was found to be mud.

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**CHARTING RECOMMENDATION**

The hydrographer recommends that the charted bouy<sup>and Obstr (12th rep)</sup> be removed from the chart. *Concur*

Recommended Position: Lat - 30/20/19.0N Lon - 087/27/29.0W

Recommended Least Depth: Current survey soundings in this area.

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**COMPILATION NOTES**

AWOIS NO:8531 ✓

**Item Description:** Obstruction (Shoal)

**Source:** CL114/90--USPS, 7/10/89--MAX

**AWOIS Position:** Lat - 30/20/42.00N Lon - 087/29/36.00W

**Required Investigation:** ES, VS -- 50m radius

**Charts Affected:** 11378

**INVESTIGATION**

**Date(s)/DN(s):** 02/14 and 16/94 (DN 045 and 047)

**Position Numbers:** 289-305; 509-514, 635-644

**Launch Number:** 0519

**Investigation Used:** VS, ES

**Water Visibility:** 2m

**Position Determined By:** DGPS

**Investigation Summary:** Shoaling was evident at the entrance to Soldier Creek, and is defined by the above referenced sounding data. A small privately maintained dredge moored near the mouth of this entrance is used regularly in this area. The shoalest depths found in this extremely narrow entrance were <sup>6.8</sup> 6.8 feet (2.1m), position <sup>30°20'42.00"</sup> 294.50, at 30°20'42.00"N, 087°29'39.02"W, and <sup>3.0</sup> 3.0 feet (2.1m) at <sup>30°20'44.21"</sup> 44.21"N, 087°29'39.34"W.

**CHARTING RECOMMENDATION**

The hydrographer recommends that the charted "Shl rep 1989" note be revised to "<sup>7</sup>2 ft 1994" with a warning note for mariners to use caution because of the narrow passage into and out of Soldier Creek.

*concur*

**Recommended Position:** Lat - 30/20/42.<sup>4</sup>0N Lon - 087/29/39.<sup>6</sup>0W

**Recommended Least Depth:** <sup>6.8</sup> 2.8 ft. (2.1m)

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**COMPILATION NOTES**

AWOIS NO:8606 ✓

Item Description: Obstruction, Plat ruins

Source: CL744/86--USPS,1986 ; TP00543/79--CM7719,1978

AWOIS Position: Lat - 30/20/57.41N Lon - 087/24/56.91W

Required Investigation: VS, ES, DI -- 50m radius

Charts Affected: 11378

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INVESTIGATION

Date(s)/DN(s): 02/03/94 (DN:034)

Position Numbers: 64

Launch Number: 0519

Investigation Used: VS

Water Visibility: 2m

Position Determined By: DGPS

Investigation Summary: The charted ruins were identified visually during a search of the area.

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CHARTING RECOMMENDATION

The hydrographer recommends that the charted ruins position be revised to the below listed survey position, <sup>uncovered</sup> exposed ruins <sup>0.8meters</sup> 1m.

Recommended Position: Lat - 30/20/57.39N Lon - 087/24/56.99W

Recommended Least Depth: <sup>-0.8</sup> 1 meter at MLLW

\*\*\*\*\*

COMPILATION NOTES

AWOIS NO:8607 ✓

**Item Description:** Obstruction, Shoaling

**Source:** CL1727/65--USPS, 1965

**AWOIS Position:** Lat - 30/21/34.00N Lon - 087/25/22.00W

**Required Investigation:** VS, ES -- 50m radius

**Charts Affected:** 11378

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### INVESTIGATION

**Date(s)/DN(s):** 01/26/94; 02/23/94 (DN:026 &054)

**Position Numbers:** 693-708

**Launch Number:** 0519

**Investigation Used:** VS, ES

**Water Visibility:** 2m

**Position Determined By:** DGPS

**Investigation Summary:** Visual identification was made of the reported Shoaling on 1/26/94. The shoaling was found to prohibit access to Tarkiln Bayou. Soundings were acquired as close as possible to the reported position. The entrance to Tarkiln Bayou was found to be shoal, with depths to 0.8m (2.6ft.) at position 707.4. A note "Entrance to Tarkiln Bayou is not navigable at any stage of tide due to shoaling" was added to the smooth

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### CHARTING RECOMMENDATION

The hydrographer recommends that the charted shoal reported notation be replaced by a "2 ft. 1994" notation.

*Concur*

**Recommended Position:** Lat - 30/21/29.8N Lon - 087/25/21.9W

**Recommended Least Depth:** 0.8<sup>6</sup>m (2.6<sup>0</sup>ft.) at MLLW

\*\*\*\*\*

### COMPILATION NOTES



AWOIS NO:8608 ✓

**Item Description:** Obstruction, Shoaling report

**Source:** None

**AWOIS Position:** Lat - 30/21/34.00N Lon - 087/27/53.00W

**Required Investigation:** VS,ES -- 50m radius

**Charts Affected:** 11378

---

### INVESTIGATION

**Date(s)/DN(s):** 02/02/94; & 02/23/94 (DN:033; &054)

**Position Numbers:** 56, 662-692

**Launch Number:** 0519

**Investigation Used:** VS, ES

**Water Visibility:** 2m

**Position Determined By:** DGPS

**Investigation Summary:** Shoaling to the extent of closing passage to Manuel Bayou to vessels with a draft greater than 0.4 m (1.3 ft.) was observed at position 56. Additional soundings were obtained to better define the shoaling.

---

### CHARTING RECOMMENDATION

The hydrographer recommends that the charted "4 ft rep 1975" and "Shoal rep 1975" notations be removed from the chart, and a notation "1 ft. 1994" be added at the entrance to Manuel Bayou. A note "Depths of 1 ft exist at the entrance to Manuel Bayou" was added to the smooth sheet. *Concur*

**Recommended Position:** Lat - 30/21/35.22N Lon - 087/27/56.21W

**Recommended Least Depth:** 0.4 m (1.3 ft.) at MLLW

\*\*\*\*\*

### COMPILATION NOTES

AWOIS NO:8609 ✓

Item Description: Obstruction, Plat ruins (Revised to subm pile, 1946)

Source: BP41651/46--CS344; Air Photo; H-5833--35

AWOIS Position: Lat - 30/20/36.72N Lon - 087/28/53.42W

Required Investigation: VS, ES, DI -- 50m radius

Charts Affected: 11378

-----  
**INVESTIGATION**

Date(s)/DN(s): 02/03/94 (DN:034)

Position Numbers: 57

Launch Number: 0519

Investigation Used: VS, DI

Water Visibility: 2m

Position Determined By: DGPS

Investigation Summary: Conducted a visual search with bottom visible to 100m radius of reported position with No contact made. A diver circle search was likewise conducted to 50m of reported position with No snags or contact encountered.

-----  
**CHARTING RECOMMENDATION**

The hydrographer recommends that the charted subm pile be removed from the chart. *concur*

Recommended Position: Lat - 30/20/36.72N Lon - 087/28/53.42W

Recommended Least Depth: survey soundings in area

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

AWOIS NO:8610 ✓

**Item Description:** Obstruction, pier ruins

**Source:** USGS QUAD; BP1691162--1965 "Air Photo"

**AWOIS Position:** Lat - 30/20/33.00N Lon - 087/29/49.00W

**Required Investigation:** VS, ES, DI -- 50m radius

**Charts Affected:** 11378

**INVESTIGATION**

**Date(s)/DN(s):** 02/14/94 (DN:045)

**Position Numbers:** 279

**Launch Number:** 0519

**Investigation Used:** VS

**Water Visibility:** 2m

**Position Determined By:** DGPS

**Investigation Summary:** A visual search was made for the reported pier ruins and none were found. This search was conducted as close as possible to the reported position, which was found to be inaccessible by survey launch because of shallow water. Visibility was excellent, and the search was conducted within the lee shores shelter, providing perfect conditions. This item originated from a PA position scaled from a USGS quad chart in 1959. It is strongly felt that the feature scaled and applied is in reality a pier found approximately 260m to the southwest, position 43, which is charted, but does not appear on the "T" sheet.

*This pier does appear on BP-149965 and is shown in black on the smooth sheet. Consult*

**CHARTING RECOMMENDATION**

The hydrographer recommends that the charted pier ruins be removed from the chart. *Consult*

**Recommended Position:** Lat - Lon -

**Recommended Least Depth:**

\*\*\*\*\*

**COMPILATION NOTES**

AWOIS NO:8611 ✓

**Item Description:** Obstruction, platform, revised to subm pile

**Source:** H-5833/35 ; BP41651/46--CS344, AIR Photo

**AWOIS Position:** Lat - 30/20/25.22N Lon - 087/29/50.22W

**Required Investigation:** VS, ES, DI -- 50m radius

**Charts Affected:** 11378

---

**INVESTIGATION**

**Date(s)/DN(s):** 02/03/94 (DN:034)

**Position Numbers:** 58

**Launch Number:** 0519

**Investigation Used:** VS, ES, DI

**Water Visibility:** 2m

**Position Determined By:** DGPS

**Investigation Summary:** A visual search was conducted in the reported are with No contact of reported subm pile. A diver circle search was conducted with No snags encountered.

---

**CHARTING RECOMMENDATION**

The hydrographer recommends that the charted subm pile be removed from the chart.

*CONCUR*

**Recommended Position:** Lat - 30/20/25.22N Lon - 087/29/50.22W

**Recommended Least Depth:** survey soundings in area

\*\*\*\*\*

**COMPILATION NOTES**

Perdido Bay  
Extension

AWOIS NO: 8672 ✓

Item Description: Obstruction, steel post

Source: CL1727/65--USPS

AWOIS Position: Lat - 30/23/21.71N Lon - 087/25/49.92W

Required Investigation: VS, SD, DI -- 50m radius

Charts Affected: 11378

-----  
**INVESTIGATION**

Date(s)/DN(s): 02/03/94 (DN:034)

Position Numbers: 66; 67-71

Launch Number: 0519

Investigation Used: VS ,DI, ES

Water Visibility: 2m

Position Determined By: DGPS

Investigation Summary: A 75m radius dive circle search was conducted from the reported position with no snags encountered. A visual search of the vicinity noted numerous piles existing, and these are believed to be the item reported. A "Foul Limit" line (FX's 67-71), was ran around these piles(photo included), and the area inshore of this line shall be considered "Foul".

-----  
**CHARTING RECOMMENDATION**

The hydrographer recommends that the charted steel post be removed from the chart, and that the foul limit line depicted by FX's 67-71, be added with the note "Foul"  
*See sounding plot for limits of foul area.*

CMW

Recommended Position: Lat - 30/23/17.23N Lon - 087/25/43.05W

Recommended Least Depth:

\*\*\*\*\*

**COMPILATION NOTES**

CONTROL STATIONS as of 8 Feb 1994

No	Type	Latitude	Longitude	H	Cart	Freq	Vel	Code	MM/DD/YY	Station Name
004	0	030:17:15.417	087:29:09.073	58	250	0.0	0.0		11/29/93	EDEN,1993(CONDO BASE STATION)
005	0	030:18:35.685	087:26:19.266	2	250	0.0	0.0		11/29/93	CAL 1,1993
006	0	030:24:22.477	087:26:10.133	2	250	0.0	0.0		11/29/93	CAL 2,1993

NOAA FORM 76-40  
(8-74)

Replaces C&GS Form 567.

TO BE CHARTED  
 TO BE REVISED  
 TO BE DELETED

REPORTING UNIT  
(If field party, ship or office)

ATLANTIC HYDRO PARTY 2

STATE

ALABAMA

LOCALITY

PERDIDO BAY / PALMETTO CREEK  
and SOLDIER CREEK

DATE

2/1/94

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

ORIGINATING ACTIVITY

HYDROGRAPHIC PARTY  
 GEODETIC PARTY  
 PHOTO FIELD PARTY  
 COMPILATION ACTIVITY  
 FINAL REVIEWER  
 QUALITY CONTROL & REVIEW GRP.  
 COAST PILOT BRANCH  
(See reverse for responsible personnel)

The following objects HAVE  HAVE NOT  been inspected from seaward to determine their value as landmarks.

J223-AHP

OPR PROJECT NO.

JOB NUMBER

H-10526

DATUM

NAD 83

METHOD AND DATE OF LOCATION  
(See instructions on reverse side)

OFFICE

FIELD

CHARTS  
AFFECTED

CHARTING NAME

DESCRIPTION  
(Record reason for deletion of landmark or aid to navigation.  
Show triangulation station names, where applicable, in parentheses)

LATITUDE

D.M. Meters

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LONGITUDE

D.P. Meters

° / ' " "

POSITION

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PALMETTO CREEK DAYMARK #4

Priv. maintained single pile, exposed 2.5 meters with a red triangle with a # 4 in center of triangle

30° 20'

13.136"

87° 30'

32.762

PALMETTO CREEK DAYMARK #6

Priv. maintained single pile, exposed 2.5 meters, with a red triangle on top and # 6 in center of triangle

30° 20'

16.169"

87° 30'

31.715"

PALMETTO CREEK DAYMARK #8

Priv. maintained single pile, exposed 2.5 meters, red triangle on top of pile with a "18" in center of triangle

30° 20'

17.309"

87° 30'

31.404"

SOLDIER CREEK ENTRANCE DAYMARK

Priv. maintained single pile, exposed 2.6 meters

30° 20'

37.519"

87° 29'

37.445"

SOLDIER CREEK DAYMARK #4

Priv. maintained, single pile, exposed 2.6 meters with a red triangle and "4" in center of triangle

30° 20'

42.805"

87° 29'

38.262"

SOLDIER CREEK DAYMARK #5

Priv. maintained, single pile, exposed 2.6 meters with a green square and "5" in center of square

30° 20'

42.883"

87° 29'

38.923"

SOLDIER CREEK DAYMARK #6

Priv. maintained, single pile, exposed 2.6 meters with a red triangle and "6" in center of triangle

30° 20'

43.791"

87° 29'

37.168

SOLDIER CREEK DAYMARK #7

Priv. maintained, single pile, exposed 2.6 meters with green square and "7" in center of square

30° 20'

45.062"

87° 29'

40.554

SOLDIER CREEK DAYMARK #8

Priv. maintained single pile, exposed 2.6 meters with ~~green square~~ red triangle and "8" in center of triangle (ON LAND)

30° 20'

47.631"

87° 29'

41.748

11378

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RESPONSIBLE PERSONNEL		ORIGINATOR
TYPE OF ACTION	NAME	PHOTO FIELD PARTY <input type="checkbox"/> HYDROGRAPHIC PARTY (Specify) <input checked="" type="checkbox"/> GEODETIC PARTY <input type="checkbox"/> OTHER (Specify)
OBJECTS INSPECTED FROM SEAWARD	AHP	
POSITIONS DETERMINED AND/OR VERIFIED	AHP	FIELD ACTIVITY REPRESENTATIVE
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES	Russ Davies DHS, Seattle, WA	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**</b> require entry of method of location or verification, date of field work and number of the photograph used to locate or identify the object. 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 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 **PHOTOGRAMMETRIC FIELD POSITIONS are dependent entirely, or in part, upon control established by photogrammetric methods.	

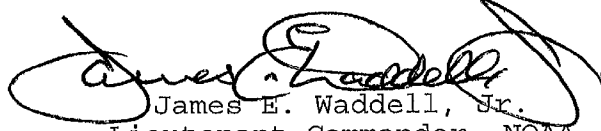


APPROVAL SHEET

BASIC HYDROGRAPHIC SURVEY  
OPR-J223-AHP  
AHP-10-02-94  
H-10526  
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 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: May 11, 1994

MARINE CENTER: Pacific

HYDROGRAPHIC PROJECT: OPR-J223-AHP

HYDROGRAPHIC SHEET: H-10526

LOCALITY: Perdido Bay, Florida/Alabama, Nix Point to Red Bluff

TIME PERIOD: January 26 - March 16, 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.

REMARKS: RECOMMENDED ZONING

Times and heights are direct on Perdido Heights, Fl. (872-9962).

Note: Times are tabulated in Central Standard Time.

*William M. Johnson*  
CHIEF, DATUMS SECTION



H-10526

GEOGRAPHIC NAMES

Name on Survey	A ON CHART NO. 11378 B ON PREVIOUS SURVEY C ON U.S. QUADRANGLE MAPS D FROM LOCAL INFORMATION E TP-00545 F P.O. GUIDE OR MAP NO. 00539 G RAND McNALLY ATLAS H U.S. LIGHT LIST K										
	ALABAMA (title)	X		X							
CHAGRIN POINT	X		X		X						2
CUMMINGS POINT	X		X		X						3
DUPONT POINT	X		X		X						4
FLORIDA (title)	X		X								5
KINSEY BAYOU			X		X						6
MANUEL BAYOU	X		X		X						7
MANUEL POINT	X		X		X						8
NIX POINT	X		X		X						9
PALMETTO CREEK	X		X		X						10
PERDIDO BAY	X		X		X						11
PERDIDO BEACH	X		X		X						12
PERDIDO HEIGHTS			X		X						13
RED BLUFF	X		X		X						14
SOLDIER CREEK	X		X		X						15
SPRING BRANCH	X		X		X						16
SUAREZ POINT	X		X		X						17
TARKILN BAY	X		X		X						18
TARKILN BAYOU	X		X		X						19
TARKILN POINT	X		X		X						20
											21
											22
											23
											24
											25

Approved

*Chris Colby*  
Chief Geographer

JAN 20 1995

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				1			

**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			1916	
POSITIONS REVISED				
SOUNDINGS REVISED				
CONTROL STATIONS REVISED				
	TIME-HOURS			
	VERIFICATION	EVALUATION	TOTALS	
PRE-PROCESSING EXAMINATION				
VERIFICATION OF CONTROL				
VERIFICATION OF POSITIONS	80		80	
VERIFICATION OF SOUNDINGS	161		161	
VERIFICATION OF JUNCTIONS				
APPLICATION OF PHOTOBATHYMETRY				
SHORELINE APPLICATION/VERIFICATION				
COMPILATION OF SMOOTH SHEET	25		25	
COMPARISON WITH PRIOR SURVEYS AND CHARTS		5	5	
EVALUATION OF SIDE SCAN SONAR RECORDS				
EVALUATION OF WIRE DRAGS AND SWEEPS				
EVALUATION REPORT		15	15	
GEOGRAPHIC NAMES				
OTHER*				
*USE OTHER SIDE OF FORM FOR REMARKS	TOTALS	266	20	286

Pre-processing Examination by <b>LT M. Larsen</b>	Beginning Date <b>5/11/94</b>	Ending Date <b>6/2/94</b>
Verification of Field Data by <b>A. Almacen, R. Mayor, R. Davies</b>	Time (Hours) <b>266</b>	Ending Date <b>4/13/95</b>
Verification Check by <b>R. Davies, B. Olmstead</b>	Time (Hours) <b>30</b>	Ending Date <b>4/13/95</b>
Evaluation and Analysis by <b>R. Davies</b>	Time (Hours) <b>20</b>	Ending Date <b>4/14/95</b>
Inspection by <b>B. Olmstead</b>	Time (Hours) <b>14</b>	Ending Date <b>6/2/95</b>

**EVALUATION REPORT  
H-10526**

**1. INTRODUCTION**

Survey H-10526 is a basic hydrographic survey accomplished by the Atlantic Hydrographic Party under the following Project Instructions.

OPR-J223-AHP, dated September 25, 1992  
CHANGE NO. 1, dated January 4, 1993  
CHANGE NO. 2, dated October 13, 1993

This survey was conducted on the border of Alabama and Florida and covers Perdido Bay between Red Bluff and Nix Point. The survey area also includes Spring Branch, Palmetto Creek, Soldier Creek and Tarkiln Bay. Manuel and Tarkiln Bayous could not be surveyed as shoaling at the entrances prohibited access by boat. The surveyed area extends from latitude 30/20/06N to latitude 30/24/11N, and from longitude 87/24/49W to longitude 87/31/24W. The bottom consists of mud and sand. Depths range from 0.4 meters near shore to 4.4 meters offshore. There is one deeper sounding, a 7.4 meter hole at latitude 30/23/43N, longitude 87/26/47W.

Depth curves depicted on the smooth sheet were selected from those authorized through HSG 69. Bottom characteristics are annotated on this survey.

Predicted tides for Pensacola, Florida were used for the reduction of soundings during field processing. Approved hourly heights zoned from Perdido Bay, gage 872-9962, were used during office processing.

The field sheet parameters have been revised to center the hydrography on the office plot. Soundings have been corrected for dynamic draft, actual tides and sound velocity. Hydrographic positioning was obtained using differential GPS. Data is plotted using a Modified Transverse Mercator projection based on NAD 83 datum and is depicted on a single sheet at a scale of 1:10,000.

Survey data processed using the same Hydrographic Data Acquisition/Processing System (HDAPS) software suite used by the hydrographer; the Hydrographic Processing System (HPS), Release 19940714; and AutoCad, Version 12.

At the time of the survey certification the format for the transmission of digital data had not been finally 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 the .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. Copies of these data files will be retained at PHS until data transfer protocols

are developed and approved.

The drawing files necessarily contain information which is not part of the HPS data set such as geographic name text, line-type, 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 Hydrographic Survey Guideline No. 75.

## **2. CONTROL AND SHORELINE**

Sections H and I of the hydrographer's report and the Horizontal Control Report for OPR-J223-AHP, contain adequate discussions of horizontal control and hydrographic positioning.

A horizontal dilution of precision (HDOP) not to exceed 3.75 was computed for survey operations. The quality of 77 positions exceeded the limit in terms of HDOP. These positions are isolated and occur randomly throughout the survey area. A review of the data, however, indicates that none of these fixes are used to position dangers to navigation. The features or soundings located by these fixes are consistent with the surrounding information. These fixes are considered acceptable.

Positions of horizontal control stations used during hydrography are 1993 field values based on NAD 83.

The final sounding plot 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: 0.718 seconds (22.099 meters)

Longitude: -0.075 seconds (-2.006 meters)

The year of establishment of control stations shown on the sounding plot originates with the horizontal control records for this survey.

Cartographic Revision Surveys BP-150100 (TP-00539), BP-150716 (TP-00542) and BP-149965 (TP-00543) updated by NANCI support data, were compiled on NAD 27 and apply to this survey.

Numerous piers throughout the survey area are depicted on the sounding plot 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.

Numerous minor revisions to the shoreline are depicted on the sounding plot with a dashed red line and were transferred from the final field sheet without supporting positional information. These revisions are approximate but adequate to supersede the common photogrammetrically delineated shoreline.

### **3. HYDROGRAPHY**

Except as noted below and elsewhere in this report, 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;
- c. show the survey was properly controlled and soundings are correctly plotted.

Standard depth curves were adequately drawn and developed with the exception of the zero curve. Project Instructions limits inshore hydrography to the 0.7 meter depth curve based on the shallowness of the area and a small tide range. There is no mean lower low water line as defined by hydrography or photogrammetric source data.

Hydrography could not be accomplished in Manuel and Tarkiln Bayous because of shoaling at the entrances which prohibited access to the bayous.

### **4. CONDITION OF SURVEY**

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, except as follows.

Nine private fixed aids were located, described and are recommended for charting. NOAA form 76-40 should have been filled out and attached to this report. See section 4.2.4. of the project instructions.

The U.S. Coast Guard requested third-order class I positions for navigational aids for use in locating and setting landmarks which fall within the surveys limits. A radio tower at latitude 30/21/29.0N, longitude 87/24/05.0W, falls within the survey limits and was not located. See section 4.2.1.1. of the project instructions.

### **5. JUNCTIONS**

Survey H-10526 junctions with the following surveys.

<u>Survey</u>	<u>Year</u>	<u>Scale</u>	<u>Area</u>
H-10521	1993-94	1:10,000	North
H-10528	1994	1:10,000	South

The junction with the above surveys are complete.

## 6. COMPARISON WITH PRIOR SURVEYS

H-5833(1935) 1:20,000

Survey H-5833 covers the entire area of the present survey. Shoreline has generally remained unchanged throughout the survey area since 1935. However, a few changes are readily evident in the following locations. These changes are largely due to dynamic natural processes and man-made construction. Manuel Bayou did not exist in 1935. In Perdido Bay, several man-made channels, especially at latitude 30/21/08N, longitude 87/24/56W and in Soldier Creek at latitude 30/20/41N, longitude 87/29/44W have been created. The shoreline at the entrance to Palmetto Creek has eroded on the east side and accreted on the west side. The shoreline at the entrance to Soldier Creek has eroded on the west side and accreted on the east side. A small island near the entrance to Soldier Creek has disappeared. The entrance to Tarkiln Bayou has shoaled to 0.4 meters (1.3 feet) closing off any entrance into the Bayou. The depths in Perdido Bay vary between 0.3 m to 0.9 m (1 to 3 feet) with a pattern of shoaling. The main channel of Palmetto Creek and Spring Branch has shoaled up to 0.6 m to 0.9 m (2 to 3 ft). The main channel of Soldier Creek has shoaled between 0.3 m to 0.6 m (1 to 2 ft). New construction (piers) are present throughout the survey area.

AWOIS Items 8609 and 8611 originate with the above mentioned prior survey and have been satisfactorily addressed during survey operations. Refer to the hydrographer's report for a discussion and disposition of these features.

Survey H-10526 is adequate to supersede the above mentioned prior survey within the common area.

## 7. COMPARISON WITH CHART

Chart 11378SC 26th Edition; scale 1:40,000/80,000  
 Chart 11378SC, 27th Edition; scale 1:40,000/80,000

### a. Hydrography

Charted hydrography originates with the prior survey mentioned in section 6 and miscellaneous sources and requires no further discussion, except for the following.



Hydrography was not accomplished in Tarkiln and Manuel Bayous because shoaling prohibited access to the Bayou. The entrances into Tarkiln and Manuel Bayous are now closed at all stages of tide due to shoaling. A note has been added to the smooth sheet reflecting this situation. It is recommended that all depths in Tarkiln Bayou be removed.

Survey H-10526 is adequate to supersede charted hydrography within the common area.

b. AWOIS

AWOIS items 8530, 8531, 8606, 8607, 8608, 8610 and 8672 originate with miscellaneous sources. Refer to the hydrographer's report for a discussion and disposition of these features.

c. Controlling Depths

There are no channels with controlling depths found within the survey area.

d. Aids to Navigation

There are no floating aids within the survey area. There are nine privately maintained fixed aids within the survey area. These fixed aids to navigation were positioned and described adequately. The following privately maintained fixed aids to navigation are recommended for charting. See attached NOAA form 76-40 for complete descriptions.

<u>Name</u>	<u>Latitude(N)</u>	<u>Longitude(W)</u>
Palmetto Creek R "4"	30/20/13.136	87/30/32.762
Palmetto Creek R "6"	30/20/16.169	87/30/31.715
Palmetto Creek R "8"	30/20/17.309	87/30/31.404
Soldier Creek Entrance Daybeacon	30/20/37.519	87/29/37.445
Soldier Creek R "4"	30/20/42.805	87/29/38.262
Soldier Creek G "5"	30/20/42.893	87/29/38.973
Soldier Creek R "6"	30/20/43.991	87/29/39.168
Soldier Creek G "7"	30/20/45.062	87/29/40.554
Soldier Creek R "8"	30/20/47.631	87/29/41.748

Soldier Creek Entrance Daybeacon 1, Light List number 4935, is charted approximately 100 meters to the southeast of the Soldier Creek Entrance Daybeacon, located on this survey. These may be the same aid to navigation. If it is, the light list name should be retained as listed in the Light List and should be updated to the survey position.

There are no charted landmarks within the survey area. The hydrographer recommended no additional features of landmark value.

e. **Geographic Names**

Names appearing on the smooth sheet and in the survey title have been approved by the Chief Geographer.

f. **Dangers to Navigation**

No dangers to navigation were generated during survey operations or office processing.

**8. COMPLIANCE WITH INSTRUCTIONS**

Survey H-10526 adequately complies with the project instructions, except where noted in this report.

**9. ADDITIONAL FIELD WORK**

This is a good hydrographic survey. No additional field work is recommended.

*C.R. Davies*  
C.R. Davies  
Cartographer

**APPROVAL SHEET  
H-10526**

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 disproof 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. The survey records and digital data comply with NOS requirements except where noted in the Evaluation Report.

Bruce A. Olmstead Date: 6/6/95  
Bruce A. Olmstead  
Senior Cartographer, Hydrographic Processing Unit  
Pacific Hydrographic Section

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: 6/14/95  
for Kathy Timmons  
Commander, NOAA  
Chief, Pacific Hydrographic Section

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Final Approval

Approved:

Andrew A. Armstrong III Date: 6/28/95  
Andrew A. Armstrong III  
Captain, NOAA  
Chief, Hydrographic Surveys Branch

