

10451

10451

Diagram No. 1264-2

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. .... AHP2-10-14-92 .....  
Registry No. .... H-10451 .....

LOCALITY

State ..... Florida .....  
General Locality .. Choctawhatchee Bay .....  
Sublocality .... Garnier & Cinco Bayous .....

1992

CHIEF OF PARTY  
LT T.R. Waddington

LIBRARY & ARCHIVES

DATE ..... March 28, 1994 .....

10401

RECEIVED

DEPARTMENT OF JUSTICE

FEDERAL BUREAU OF INVESTIGATION

WASHINGTON, D. C.

NOV 15 1941

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DEPARTMENT OF JUSTICE

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WASHINGTON, D. C.

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CP5  
11385 B

11388 N.C.

**HYDROGRAPHIC TITLE SHEET**

H-10451

**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.

AHP2-10-14-92

State Florida

General locality Choctawhatchee Bay

Locality Garnier and Cinco Bayous

Scale 1:10,000 Date of survey May 20 - June 24, 1992

Instructions dated March 9, 1992 Project No. J259-AHP

Vessel 0517

Chief of party LT Thomas R. Waddington, NOAA

Surveyed by Mark McMann, Larry Martinez, Bob Ramsey, LT Ralph Rogers, NOAA

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

Graphic record scaled by Mark Mc Mann, Larry Martinez, Bob Ramsey, LT Ralph Rogers

Graphic record checked by Mark Mc Mann, Larry Martinez, Bob Ramsey, LT Ralph Rogers

Verification by: Gordon E. Kay Automated plot by PHS Xynetics Plotter

Evaluation by: Gordon E. Kay

Soundings in meters & decimeters  
~~fathoms~~ ~~feet~~ at ~~MHW~~ 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.

*AWOIS/SURPL 4/6/94 SJV*

*501-6-97*

*XWW*



DESCRIPTIVE REPORT TO ACCOMPANY  
HYDROGRAPHIC SURVEY H-10451  
FIELD NO. AHP2-10-14-92  
SCALE: 1:10,000  
1992  
ATLANTIC HYDROGRAPHIC PARTY  
CHIEF OF PARTY: Lt. Thomas R. Waddington

A. PROJECT

This survey was conducted according to Hydrographic Project Instructions OPR-J259-AHP2, Choctawhatchee Bay, Florida, dated March 9, 1992. These are amended by Change No. 1, dated June 2, 1992 and Change No.2, dated September 30, 1992. This survey was originally an inset on H-10410. It was later decided to make the inset a survey unto itself, registry number H-10451. This will be change number three. The official memorandum has not been received yet. ✓

The purpose of this project is to provide contemporary hydrography for the maintenance of existing charts. Prior surveys in this area were conducted in 1935 and 1939. ✓

This survey is sheet "H". ✓

B. AREA SURVEYED

The survey area includes Garnier and Cinco Bayous and their smaller tributary bayous. The area is characterized by private homes and small private piers throughout. The survey limits are as follows: ✓

North - Latitude  $30^{\circ}28'40''^N$   
South - Latitude  $30^{\circ}25'15''^N$   
East - Longitude  $086^{\circ}34'30''^W$   
West - Longitude  $086^{\circ}38'20''^W$

This survey was conducted from May 20, 1992 (DN 141) to June 24, 1992 (DN 176). ✓

C. SURVEY VESSELS

Vessel 0517 (EDP No. 0517) 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

All hydrographic data for this survey is processed with the Hydrographic Data Acquisition and Processing System (HDAPS). On-line data acquisition used version 3.6 of the PC-DAS suite of programs. Listings of program version numbers are provided in Appendix VI. The following non-HDAPS computer programs were used:

*Filed with the survey records*

VELOCITY (IBM PC)	Ver. 1.11 (3/9/90)
NADCON (IBM PC)	Ver. 1.01
WORDPERFECT (IBM PC)	Ver. 5.1

E. SONAR EQUIPMENT

Not Applicable.

F. SOUNDING EQUIPMENT

Echo soundings were taken with Innerspace model 448 depth sounder, serial number 187, until May 22, 1992 (DN 143), when the unit failed. Thereafter, Innerspace model 448, serial number 188 was used to take all echo soundings. Neither depth sounder would digitize depths less than 0.5 meter.

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, constructed according to HSG. No. 69, was used to take any pole soundings.

Depths on this survey ranged from 0.5 to 10.<sup>7</sup>/<sub>4</sub> meters.

G. CORRECTIONS TO SOUNDINGS

Soundings are recorded in meters <sup>AND decimeters</sup>. The Innerspace 448 depth sounder is calibrated for an assumed speed of sound through water of 1500 meters/second. Corrections for the speed of sound through water are computed from data taken with Odom Hydrographic Systems Digibar electronic speed of sound probes, serial numbers 154 and 155. Data quality assurance tests were performed before each cast. Program Velocity, version 1.11 was used to compute speed of sound corrections. Copies of the tables and velocity cast data are in the Survey Separates, *Filed with the survey records.*

The following speed of sound casts were taken during the survey. ✓

=====

Cast	Table	DN	DATE	Latitude	Longitude	Depth
						Actual/Extended
1	1	141	05/20/92	30°26'36"N	086°35'24"W	9.0/11.7
3	3	153	06/01/92	30°26'36"N	086°35'24"W	9.0/11.7
5	5	161	06/09/92	30°26'30"N	086°35'15"N	9.0/11.7

=====

For final processing at Pacific Hydrographic Section, table one is recommended for use from day 141 through 157 and table five for days 158 through 176. ✓

The Innerspace 448 depth sounder is semi-automated and does not need adjustments of the tide and draft nor speed of sound. Any required adjustments of the gain and chart speed were made and noted on the graphic record. The digitized soundings matched the Innerspace 448 echo sounder's trace to plus or minus 0.1 meter. Any necessary corrections were made during scanning of the graphic record. ✓

Weather permitting, lead line comparisons were conducted each day of hydrography to determine an instrument corrector. No instrument error was detected from these comparisons. The lead line comparison form can be found in the Survey Separates. *Filed with the Survey records* ✓

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 0519, 0.6 meters above the transducer, to the water surface. ✓

Settlement and squat measurements were performed on May 15, 1992 (DN 136), at Shalimar, Florida, using the level method. Settlement and squat correctors and the static draft corrector were applied on-line through the offset tables. Copies of the field data, the graphs of the settlement and squat correctors vs. RPM, and the offset tables are included in the Survey Separates, *Filed with the Survey records* ✓

The final field sheet was plotted using predicted tides determined from the Pensacola, Florida tide station, number 872-9840. Time and height correctors listed in the project instructions were used. ✓

The final field sheet was plotted after the HDAPS "Reapply" program had been used to log the proper depth correctors (from the tide table, velocity table, and offset table) to each data record. ✓

Approved water levels are requested from the Product and Services Branch, N/OES231, in a letter dated February 12, 1993. A copy is in ~~Appendix V of this report~~. *filed with the survey records.*  
*Approved Tide NOTE is attached to this report.*

#### H. CONTROL STATIONS *SEE Evaluation Report, section 2*

The horizontal control datum for this project is the North American Datum of 1983. Two horizontal control stations, BANK (055) and Barn (004), were used on this survey. Station BANK was established to third-order standards with GPS by AHP personnel in May 1992. The Horizontal Control Report for this position was submitted to N/CG23322 in October 1992. Station BARN was recovered from NGS Data. Station BANK served as the DGPS reference site and station BARN as the launch performance checkpoint. A copy of the HDAPS Control Station ~~Table~~ is in ~~Appendix III~~. *filed with the survey records.*

#### I. HYDROGRAPHIC POSITION CONTROL

Differential GPS was used as the method of positioning for all hydrographic data on this survey. This met accuracy requirements for this 1:10,000 scale survey. An Ashtech model XII receiver, serial number 700157E1075 was used for the reference station. An Ashtech model XII receiver, serial number 700157E1076 was used for the remote station on vessel 0517. Ashtech supplied Maxxon VHF radios using channel one (Frequency 170.200 Mhz) were used as the data link between reference and remote stations.

To confirm the reference site as required by section 3.4.6.3 of the Field Procedures Manual, program Monitor was run for 24 hours starting on May 18, 1992. The GPS availability at this site was determined to be better than 99% from this test. Because of unfamiliarity with the process, the plot of radial position and the outlier.sum file were not properly retained. Future surveys will include these in the Survey Separates, *filed with the survey records.*

Performance checks, as required by section 3.4.4 of the Field Procedures Manual, were accomplished by comparing the DGPS position of the vessel to a third order position on a pier within the survey area. Performance checks were taken daily. Abstracts of these checks are included in section III of the Survey Separates, *filed with the Survey records.*

As directed by DGPS operating specifications in the Field Procedures Manual, hydrographic operations ceased whenever the horizontal dilution of precision (HDOP) values exceeded 3.8. This is calculated by the formula found in the Field Procedures Manual, using an ESE value of 4m, an EPE value of 15m, and an EDE value of 0.2m. The periods of poor satellite geometry causing high HDOP values were minimal on this survey. *Further discussion concerning positional data can be found in the Evaluation Report, section 2.*



Occurrences of "lost lock" were minimal and caused by periods of high HDOP. Operations were suspended during these periods, until the HDOP returned to an allowable value. ✓

An occasional problem was encountered when an apparently good position plotted questionably on the raw track plot. This problem is attributable to the survey computer's inability to immediately compute an accurate position after an extended period of questionable DGPS data. These positions were reviewed, then edited or rejected as warranted. ✓

J. SHORELINE See Eval Rpt, Section 2

Shoreline shown on the final field sheet was transferred by hand from TP-00334. ~~and TP-00337.~~ The shoreline manuscript was compiled on NAD 1927 at 1:10,000 scale for TP-00334. ~~and 1:20,000 scale for TP-00337, enlarged to 1:10,000 scale for use with this survey.~~ These T-map's <sup>are</sup> were recently revised using 1991 Nanci source data. ✓

Shoreline verification was accomplished by comparison of the main scheme hydrography which junctions at shore, detached positions, or by visual inspections. Verified shoreline is shown in black ink on the final field sheet. Many new piers were located during this survey and are shown in red on the final field sheet. Charted shoreline and shoreline details should be superseded by shoreline and details from TP-00334. ~~and TP-00337.~~ ✓

Because of the excessive number of piers on this survey, the use of reference numbers was considered uneconomical. <sup>CONCISE</sup> Shoreline inspection was done by comparing the number of T-map piers with what actually existed. Any unmapped piers were located by detached position, photographed, and listed on the detached position editor printout, located in the cahier. These piers are shown in red on the Final Field sheet. Charted piers not shown on the T-map nor depicted in red on the Final Field sheet should be removed from the chart. <sup>CONCUR</sup> *Many smaller piers <25 feet have not been shown on smooth sheet, but should not be considered disapproved.* ✓

Field notes are located on the graphic records. No sounding volumes or notebooks were used. A complete list of all detached positions by day, generated through the HDAPS Detached Position Editor is included in the cahier. It lists the feature or item number, and position. ✓

K. CROSSLINES

A total of 6.4 linear nautical miles of crosslines were run. This equals 18.1% of the main scheme hydrography. Cross line soundings agree with the main scheme soundings within 0.3 meters.

L. JUNCTIONS *SEE Evaluation Report, section 5*

This survey junctions with H-10262, a 1:10,000 scale survey from 1988 to the southeast.

Junction soundings between the present survey and H-10262 are good with differences 0.3 meter or less, *junction survey is in feet.*

M. COMPARISON WITH PRIOR SURVEYS *SEE Evaluation Report, Section 6*

This survey was compared with prior survey H-5836, a 1:10,000 scale survey from 1935, *prior survey in feet.*

None of the four AWOIS items addressed on this survey originate from the prior survey. All AWOIS items are discussed completely on item investigation reports ~~found in Appendix VI attached.~~

Prior survey agreement with this survey is good. The current soundings are generally within 0.6 meter of prior survey soundings, with the current survey soundings being shallower. Most of the disagreement occurs in the deeper depths and does not affect the charted contours.

There are only minor shoreline changes noted from the prior survey. The most significant change is the addition of hundreds of private piers, most of which are shown on the T-map.

N. COMPARISON WITH THE CHART *SEE Evaluation Report, section 7*

Comparisons were made with the following charts of the area:

<u>Chart No.</u>	<u>Edition</u>	<u>Edition Date</u>
11385 <i>SL</i>	20th	November 23, 1991
* 11388	15th	January 4, 1992

Four AWOIS items, numbers 4627, 4632, 4641 and 4647 were addressed on this survey. These items are discussed on the item investigation report forms found <sup>attached</sup> ~~in the Survey Separates.~~ The items account for all charted offshore features.

No dangers to navigation were identified on this survey. *SEE Evaluation Report, Section 7f.*

\* *THE CHART contains no data within the survey area.*

Sounding comparison results are the same as those discussed in section M. of this report. ✓

Two large boat houses, charted at latitude 30°26'09"N, longitude 086°35'06"W, are shown on the T-map as one boat house. While the building is actually two separate boat houses, they apparently could not be identified as two buildings because of the nearness of the roof overhangs. This does not detract from the accuracy of the T-map depiction of this area. The hydrographer recommends the northerly of the two charted boat houses be retained and the other deleted. *Chart area as shown on Smooth Sheet.*

O. ADEQUACY OF SURVEY

This survey is a complete basic hydrographic survey and is adequate to supersede <sup>the</sup> all prior surveys within the common area. ✓

P. AIDS TO NAVIGATION *SEE Evaluation Report, section 7d*

There are no aids to navigation in the survey area. *CONCUR*

The submerged cable area crossing from Smack Point, northeasterly to Shalimar should be retained as charted. No changes to the charted clearances for the bridge and overhead cable crossing Cinco Bayou nor the bridge crossing Garnier Bayou are recommended. *CONCUR* ✓

Q. STATISTICS

<u>Description</u>	<u>Quantity</u>
Total Number of Positions	843
Total Lineal Nautical Miles of Hydrography	35.0
Square Nautical Miles of Hydrography	3.5
Days of Production	14
Detached Positions	70
Bottom Samples	18
Tide Stations	3
Velocity Casts	6
Duplicated Positions	22

 ✓

R. MISCELLANEOUS

No significant current conditions were observed while conducting this survey. ✓

Data for plotter sheet 16 was collected on plotter sheet 1. This resulted in there being only one 32-track data tape for the two plotter sheets submitted with this survey. ✓

Eighteen bottom samples were taken. They were not submitted to the Smithsonian Institution as directed in section 6.7 of the project instructions. Bottom sample positions are plotted on the overlay and are listed on the Oceanographic Log Sheet-M, NOAA Form 75-44, in the Survey Separates, *filed with the survey records.* ✓

There were no predicted tide anomalies observed during this survey. ✓

All chain drag data was track plotted on the Overlay. All chain drag data has been checked and edited for bad positional data and labeled "NOT FOR SMOOTH PLOT." *NSP* ✓

The ASSIGN FIX program was used to assign position numbers to the beginning or ending of a line as needed. ✓

S. RECOMMENDATIONS *SEE Evaluation Report, section 7.f.*

Specific recommendations concerning this survey are made in sections J, N, and P of this report. No inadequacies, additional work, nor further investigations were identified after field work was completed. *During office processing two significant items were found which were not investigated by the field. Specific information and discussion can be found as referenced above.* ✓

T. REFERRAL TO REPORTS

<u>Title</u>	<u>Transmittal Information</u>
Descriptive Report to Accompany Survey H-10262	Pacific Hydrographic Section N/CG245 Seattle, WA, (1988)
Horizontal Control Report for OPR-J259-AHP2	Field Photogrammetry Section Norfolk, VA (N/CG23322)(1992)
Chart Sales Agent Report for OPR-J259-AHP2	Chart Distribution Branch (N/CG33) Rockville, MD (1993)

Title

Transmittal Information

User Evaluation Report  
OPR-J259-AHP2

Atlantic Hydrographic Section  
(N/CG244)  
Norfolk, VA (1993)

Chart Inspection Report  
OPR-J259-AHP2

Atlantic Hydrographic Section  
(N/CG244)  
Norfolk, VA (1993)

Coast Pilot Report

Pacific Hydrographic Section  
N/CG245  
Seattle, WA (1993)

Submitted by: Mark J. McMann, Launch Hydrographer-in-Charge

Horizontal Control Stations

OPR-J259

AHP2-10-14-92

H-10451

004	<sup>1987</sup> BARN A	Lat.	30	25'	28.023"N ✓	Lon.	086	36'	00.545"W ✓
055	BANK ^ <sub>1992</sub>	Lat.	30	26'	30.567"N ✓	Lon.	086	35'	36.990"W ✓

AWOIS NO: 4627

Item Description: OBSTRUCTION (Piling PA)

Source: CL1196/80--USPS

AWOIS Position: Lat - 30°25'52.71"N, Lon - 086°38'10.83"W

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

Charts Affected: 11385, ~~11388~~

INVESTIGATION

Date(s)/DN(s): 6-16-92/168 (OPR-J259-AHP2, H-10451)

Position Numbers: 801-802

Launch Number: 0517

Investigation Used: Visual Search

Position Determined By: Ashtech Ranger XII DGPS

Investigation Summary: Position 801 is the center of a visual search where nothing was found. Position 802 is the offshore end of a wooden pier. While positioning this pier, the owner informed the hydrographer that the pier was constructed on the old pier ruins, using the old piles.

CHARTING RECOMMENDATION

The Hydrographer recommends charting the pier and removing the piling PA notation and symbol from the chart. *CONCUR*

Recommended Position: Lat 30°25'52.02"N, Lon 086°38'10.46"W <sup>7</sup>@

Recommended Least Depth: Bares 1.2m *detached position is at end of pier. Chart at MHW pier as shown on SMOOTH SHEET.*  
@ Position #802

\*\*\*\*\*

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 4632 ✓

Item Description: OBSTRUCTION

Source: UNKNOWN ✓

AWOIS Position: Lat - 30°26'29.71"✓N, Lon - 086°35'24.82"✓W

Required Investigation: BD, DI, SD - 100m ✓ radius.

Charts Affected: 11385, ~~11388~~

INVESTIGATION

Date(s)/DN(s): 6-16-92/168

Position Numbers: 770-799

Launch Number: 0517

Investigation Used: BD

Position Determined By: ASHTECH Ranger XII DGPS

Investigation Summary: A 100 meter radius chain drag was conducted with 75 feet of line and 60 feet of chain. Nothing was found.

*Survey requirements met. HOWEVER A 5.7 meter shoal was located at Position Number 73/5 latitude 30/26/38.57N, longitude 086/35/22.79W, 278 meters NE, from AWOIS feature.*

CHARTING RECOMMENDATION

The Hydrographer recommends removal of the Obstr note and the symbols from the chart. *Concur @*

Recommended Position: None

Recommended Least Depth: None

*@ for additional information see Evaluation report, section 7f*

\*\*\*\*\*

COMPILATION NOTES

Chart

Applied As



AWOIS NO: 4641

Item Description: OBSTRUCTION (Shoaling Reported)

Source: CL851/86--USPS

AWOIS Position: Lat - 30°26'57.71"N, Lon - 86°35'32.82"W

Required Investigation: ES

Charts Affected: 11385, ~~11388~~

-----  
INVESTIGATION

Date(s)/DN(s): 06-12-92/194

Position Numbers: 631-647

Launch Number: 0517

Investigation Used: ES

Position Determined By: ASHTECH RANGER XII GPS

Investigation Summary: Mainscheme hydrography was split to 50 meters over the shoal to find a least depth and determine the size of the shoal. Hydrography in the area indicates the shoal is adequately charted. *Chart Area as shown on Smith Sheet.* 15

-----  
CHARTING RECOMMENDATION

Chart representative soundings from H-10451 and remove the shoal reported notation. *CONCUP*

Recommended Position: None

Recommended Least Depth: None

\*\*\*\*\*

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 4647

Item Description: OBSTRUCTION (Piling PA)

Source: CL1196/80<sup>✓</sup>--USPS

AWOIS Position: Lat - 30°27'05.71<sup>✓</sup>"N, Lon - 86°36'32.83<sup>✓</sup>"W

Required Investigation: VS, BD, DI, SD<sup>✓</sup> 50m<sup>✓</sup> radius

Charts Affected: 11385, ~~11388~~

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INVESTIGATION

Date(s)/DN(s): 6-16-92/168

Position Numbers: 800

Launch Number: 0517

Investigation Used: Visual Search

Position Determined By: Ashtech Ranger XII DGPS

Investigation Summary: A "Danger Submerged Pipe" sign was located by visual search at the AWOIS position. This sign is located at the offshore end of a double row of piles which mark an 18" dia. storm drain outfall.

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CHARTING RECOMMENDATION

The Hydrographer recommends charting the piling<sup>and private marker</sup> at the recommended position below and removing the PA notation. *CONCUR*

Recommended Position: Lat 30°27'05.86"N, Lon 086°36'32.46"W

Recommended Least Depth: Bares 1.2m at MKW

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

Chart

Applied As

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

March 9, 1994

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

Dear Sir:

During the final office processing of hydrographic survey H-10451, Florida, Choctawhatchee Bay, two dangers to navigation were discovered. These dangers affect the following chart.

<u>Chart</u>	<u>Edition/date</u>	<u>Datum</u>
11385	21st Ed., 9/25/93	NAD 83

It is recommended that the Report of Dangers to Navigation be included in the Local Notice to Mariners.

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

Sincerely,

Douglas G. Hennick  
Commander, NOAA  
Chief, Pacific Hydrographic Section

Enclosure

cc: DMA/TC  
N/CG221

FILE COPY

CODE	SURNAME	DATE	CODE	SURNAME	DATE
	Boo	8/9/94			

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

REPORT OF DANGERS TO NAVIGATION

Hydrographic Survey Registry Number: H-10451

Survey Title:  
 State: FLORIDA  
 Locality: CHOCTAWHATCHEE BAY  
 Sublocality: GARNIER AND CINCO BAYOUS

Project Number: OPR-J259-AHP

Sounding has been reduced to Mean Lower Low Water using actual tides.

Affected nautical chart:

<u>Chart</u>	<u>Edition/date</u>	<u>Datum</u>
11385	21st Ed., 9/25/93	NAD 83

<u>DANGER TO NAVIGATION</u>	<u>LATITUDE (N)</u>	<u>LONGITUDE (W)</u>
18.7- foot shoal	30/26/38.57	86/35/22.79
1.6-foot shoal	30/27/41.09	86/35/41.59

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

FILE COPY

CODE	SURNAME	DATE	CODE	SURNAME	DATE

APPROVAL SHEET

HYDROGRAPHIC SURVEY  
OPR-J259-AHP2  
AHP2-10-14-92  
H-10451  
1992

This hydrographic survey was conducted in accordance with the project instructions for OPR-J259-AHP2, the hydrographic manual, the hydrographic survey guidelines, and the field procedures manual. The survey data and reports were completed under frequent supervision. All boat sheets and final field sheets were reviewed in their entirety and all supporting records were also checked. ✓

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

*Thomas R. Waddington*  
Lt. Thomas R. Waddington  
Chief, Atlantic Hydrographic Party Two



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL OCEAN SERVICE  
Office of Ocean and Earth Sciences

TIDE NOTE FOR HYDROGRAPHIC SURVEY

ORIGINAL

DATE: May 24, 1993

MARINE CENTER: Pacific

OPR: J259

HYDROGRAPHIC SHEET: H-10451

LOCALITY: Florida, Choctawhatchee Bay, Garnier and Cinco Bayous,  
Smack Point to Camp Pinchot

TIME PERIOD: May 20, 1992 - June 24, 1992

TIDE STATION USED: 872-9548 Camp Pinchot, Fl.  
Lat.  $30^{\circ} 28.3'N$  Lon.  $86^{\circ} 35.6'W$

PLANE OF REFERENCE (MEAN LOWER LOW WATER): = 4.87 feet  
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: = 0.4 foot

REMARKS: RECOMMENDED ZONING

1. North of  $30^{\circ} 27.5'N$ , times and heights are direct.
2. North of the bridge over Garnier Bayou at Shalimar, and south of  $30^{\circ} 27.5'N$ , heights are direct, and apply a -30 minute time correction.
3. South of the bridge over Garnier Bayou at Shalimar, heights are direct, but apply a -1 hour time correction.

NOTE: Hourly heights are tabulated on Central Standard Time.

  
CHIEF, DATUMS SECTION



GEOGRAPHIC NAMES

Name on Survey	ON CHART NO. 11385											
	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											
CHOCTAWHATCHEE BAY	X											1
CHULA VISTA BAYOU	X											2
CINCO BAYOU	X											3
CLAY POINT	X											4
DONS BAYOU	X											5
FLORIDA (title)												6
FORT WALTON BEACH	X											7
GARNIER BAYOU	X											8
HAND COVE	X											9
LONGWOOD												10
OCEAN CITY	X											11
PARADISE POINT	X											12
POQUITO BAYOU	X											13
SHALIMAR	X											14
SMACK POINT	X											15
												16
												17
												18
												19
												20
												21
												22
												23
												24
												25

Approved:

*Charles E. Harrington*  
Chief Geographer - N/CG245

APR 19 1993

NOAA FORM 77-27(H) (9-83)		U.S. DEPARTMENT OF COMMERCE		REGISTRY NUMBER H-10451	
HYDROGRAPHIC SURVEY STATISTICS					
RECORDS ACCOMPANYING SURVEY: To be completed when survey is processed.					
RECORD DESCRIPTION		AMOUNT		RECORD DESCRIPTION	
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					
ENVELOPES					
VOLUMES					
CAHIERS	1				
BOXES					
SHORELINE DATA					
SHORELINE MAPS (List):		TP-00334			
PHOTOBATHYMETRIC MAPS (List):		NA			
NOTES TO THE HYDROGRAPHER (List):		NA			
SPECIAL REPORTS (List):		NA			
NAUTICAL CHARTS (List):		11385SC 20th Ed., Nov. 23, 1991			
OFFICE PROCESSING ACTIVITIES <i>The following statistics will be submitted with the cartographer's report on the survey</i>					
PROCESSING ACTIVITY			AMOUNTS		
			VERIFICATION	EVALUATION	TOTALS
POSITIONS ON SHEET					761
POSITIONS REVISED			0	0	0
SOUNDINGS REVISED			50	0	50
CONTROL STATIONS REVISED			0	0	0
			TIME-HOURS		
			VERIFICATION	EVALUATION	TOTALS
PRE-PROCESSING EXAMINATION					
VERIFICATION OF CONTROL					
VERIFICATION OF POSITIONS			30		30
VERIFICATION OF SOUNDINGS			49		49
VERIFICATION OF JUNCTIONS					
APPLICATION OF PHOTOBATHYMETRY					
SHORELINE APPLICATION/VERIFICATION					
COMPILATION OF SMOOTH SHEET			22		22
COMPARISON WITH PRIOR SURVEYS AND CHARTS				12	12
EVALUATION OF SIDE SCAN SONAR RECORDS					
EVALUATION OF WIRE DRAGS AND SWEEPS					
EVALUATION REPORT				35	35
GEOGRAPHIC NAMES					
OTHER*					
*USE OTHER SIDE OF FORM FOR REMARKS			TOTALS	101	47
					148
Pre-processing Examination by <b>J. Griffin, D. Neander</b>			Beginning Date 3/19/93	Ending Date 4/16/93	
Verification of Field Data by <b>G.E. Kay, C.R. Davies</b>			Time (Hours) 101	Ending Date 7/23/93	
Verification Check by <b>J. Stringham, J. Green</b>			Time (Hours) 9	Ending Date 8/6/93	
Evaluation and Analysis by <b>G.E. Kay</b>			Time (Hours) 47	Ending Date 1/19/94	
Inspection by <b>B. A. Olmstead</b>			Time (Hours) 38	Ending Date 3/9/94	



**EVALUATION REPORT  
H-10451**

**1. INTRODUCTION**

Survey H-10451 is a basic hydrographic survey accomplished by the Atlantic Hydrographic Party 2, under the following Project Instructions.

OPR-J259-AHP2, dated March 9, 1992

CHANGE NO. 1, dated June 2, 1992

CHANGE NO. 2, dated September 30, 1992

This survey was conducted in Florida, and covers a series of bayous west of Choctawhatchee Bay. These bayous include Garnier, Cinco, Dons, Chula Vista and Poquito Bayous. The surveyed area is bounded by latitude 30/28/33N to the north and latitude 30/25/22N to the south. The eastern limit is longitude 86/34/33W. The western limit is longitude 86/38/15W. The shoreline consists of sand, marsh and private piers with bulkheads. The bottom consists of brown mud and sand. Depths range from less than a meter along the shoreline to 10.7 meters in Garnier Bayou.

Predicted tides for Pensacola, Florida, were used for the reduction of soundings during field processing. Approved hourly heights zoned from Camp Pinchot, Florida, gage 872-9548, were used during office processing.

The field sheet parameters have been revised to center the hydrography on the smooth sheet and to change the projection to polyconic. NAD 83 is used as the horizontal datum for plotting and position computation. The velocity, and other correctors are adequate. An accompanying computer printout contains the parameters and the correctors.

A digital file has been generated for this survey that includes categories of information required to comply with Hydrographic Survey Guideline No. 52, Standard Digital Data Exchange Format, April 15, 1986. Certain descriptive information, however, may not be in the digital record due to the restrictions of the presently available cartographic codes. The user should refer to the smooth sheet for a complete depiction of the survey data.

**2. CONTROL AND SHORELINE**

Sections H and I of the hydrographer's report contain adequate discussions of horizontal control and hydrographic positioning. Additional detailed information on horizontal control is found in the Horizontal Control Report for OPR-J259-AHP, dated October 12, 1992.

Differential GPS (DGPS) was used to control this survey. A horizontal dilution of precision (HDOP) not to exceed 3.75 was computed for survey operations. The quality of several

positions exceed limits in terms of horizontal dilution of precision (HDOP). 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 this survey are field values based on NAD 83. These values were used during office processing for the computation of positions. The smooth sheet and accompanying overlays are annotated with an NAD 27 adjustment tick based on values determined with the 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: 0.713 seconds (22.065 meters)  
Longitude: -0.170 seconds (-4.546 meters)

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

The following shoreline map, updated by 1991 NANCEI source data, was compiled on NAD 27 and applies to this survey.

	<u>Photo Date</u>	<u>Class</u>	<u>Scale</u>
TP-00334	Jan. 1977, Feb. 1978	III	1:20,000

The shoreline map contains many piers that are less than 25 meters in length. A review of these features at charting scale was made and it was decided these piers are too short to be of any significant value. Therefore, these piers have not been transferred to the smooth sheet. A note to this effect has been added to the smooth sheet. This omission in no way implies these piers no longer exist or have been superseded by the present survey. TP-00334 should still be referred to as a comprehensive source of shoreline and attached cultural features. Shoreline changes are depicted on the smooth sheet in solid red, and were transferred from the final field sheet with supporting positional information. These revisions are adequate to supersede the common photogrammetrically delineated shoreline.

### 3. HYDROGRAPHY

Except as note 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;  
and

- c. show the survey was properly controlled and soundings are correctly plotted.

Standard depth curves were adequately drawn and developed except the zero curve. This was due to shallowness of the area and the use of retaining walls along the shoreline and the small range of tides. The inshore limit as defined by the Project Instructions, section 1.8, is the 0.7 meter depth curve.

#### 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 1992 Edition, except as follows.

- a. The hydrographer failed to make a comparison with prior survey H-5806, as required by Project Instructions, section 6.10.
- b. The hydrographer did not adequately obtain bottom samples at the required spacing as discussed by the Project Instructions, section 6.7.
- c. The hydrographer did not locate all charted landmarks within the project area as required by the Project Instructions, section 4.2.2.

Items a and c have been addressed in the applicable sections of the Evaluation Report.

#### 5. JUNCTIONS

Survey H-10451 junctions with the following survey.

<u>Survey</u>	<u>Year</u>	<u>Scale</u>	<u>Area</u>
H-10262	1987-88	1:10,000	Southeast

The junction with survey H-10262 has not been formally accomplished since that survey was previously processed and forwarded for charting. The junction was made using a copy. Soundings from survey H-10262 were gathered in feet and tenths of feet. Soundings are in good agreement.

## 6. COMPARISON WITH PRIOR SURVEYS

Survey H-10451 was compared with the following prior surveys.

H-5806 (1935), 1:10,000

H-5836 (1935), 1:10,000

Both surveys cover the entire area of the present survey. A comparison with present survey soundings suggest that there is a consistent difference of plus or minus 0.6 meters (2 feet). There appears to be no consistent pattern of shoaling or deepening.

The most notable changes in this survey area are the extensive amount of cultural changes. These changes have taken place along the shoreline since the previous prior surveys were performed back in the 1930's. These shoreline changes, unless otherwise noted in this report, are reflected on the smooth sheet. Additional information can be found in the hydrographer's report, section M, page 6.

There are no AWOIS items that originate with these prior surveys within the common area.

Survey H-10451 is adequate to supersede these prior surveys within the area of common coverage.

## 7. COMPARISON WITH CHART

Survey H-10451 was compared with the following chart.

Chart 11385 SC, 20th edition, dated November 23, 1991; scale 1:40,000, datum NAD 83

### a. Hydrography

The charted hydrography on the 20th edition of chart 11385 originates with prior surveys H-5806, H-5836 and miscellaneous sources. Refer to the hydrographer's report, sections M and N, pages 6 and 7, for a general comparison to the survey area.

Three charted ramps were not found or investigated adequately for disproval. These features, listed below, should be retained at the presently charted positions.

<u>Feature</u>	<u>Latitude North</u>	<u>Longitude West</u>
ramp	30/27/24	86/35/18
ramp	30/25/56	86/35/58
ramp	30/25/32	86/36/38

Except as noted, survey H-10451 is adequate to supersede charted hydrography within the common area.

b. AWOIS

There are four AWOIS items numbered 4627, 4632, 4641 and 4647 that originate with miscellaneous sources and were assigned for investigation. The disposition of these AWOIS items may be found in the AWOIS item investigation write-ups attached to the descriptive report and as follows.

AWOIS item 4632, an obstruction, centered at latitude 30/26/29.71N, longitude 86/35/24.82W was investigated with negative results. However, a 5.7-meter shoal (18.59 feet) was located, position number 73/5, at latitude 30/26/38.57N, longitude 86/35/22.79W. This new feature is 278 meters northeast of the charted location of AWOIS item 4632 and plots in depths of 8 to 8.3 meters. The AWOIS geographic coordinates originate from a scaled position on a 1962 chart. It is recommended that AWOIS item 4632 be updated with the above geographic coordinates from position number 73/5, see Evaluation Report, section 9.

c. Controlling Depths

There are no charted channels with controlling depths within the limits of this survey.

d. Aids to Navigation

There are no fixed or floating aids to navigation located within the limits of this survey. There are, however, four landmarks. These landmarks were not located during survey operations and have been transferred to the smooth sheet from the shoreline map. Descriptive and positional information are as follows.

<u>Feature</u>	<u>Latitude North</u>	<u>Longitude West</u>
tank	30/28/05	86/35/10
tank	30/26/45	86/34/53
tank	30/26/03	86/36/15
tank	30/25/10	86/36/42

There are two charted landmarks that were not identified on this survey or on the shoreline map. These landmarks should be researched by the chart compiler and if still valid, remain charted.

<u>Feature</u>	<u>Latitude North</u>	<u>Longitude West</u>
tank	30/26/01	86/35/12
building	30/26/30	86/35/36

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 reported by the hydrographer.

There are two dangers to navigation that were discovered during office processing. A 5.7-meter sounding (18.69 feet), at latitude 30/26/38.57N, longitude 86/35/22.79W. This feature plots in depths of 8 to 8.3 meters. The other danger to navigation is a 0.5-meter sounding (1.6 feet), at latitude 30/27/41.09N, longitude 86/35/41.59W.

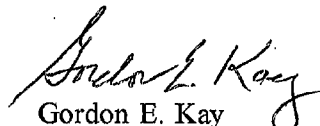
A report of these dangers has been forwarded to the Seventh Coast Guard District, Miami, Florida, and DMAHTC (NAVWARN) Washington, D.C. A copy of this message is attached.

**8. COMPLIANCE WITH INSTRUCTIONS**

Survey H-10451 adequately complies with the Project Instructions.

**9. ADDITIONAL FIELD WORK**

This is a good hydrographic survey. Additional field work on a low priority basis is recommended to investigate the 5.7-meter sounding (18.59 feet) and the 0.5-meter sounding (1.6 feet) as discussed in section 7f.

  
Gordon E. Kay  
Cartographer

APPROVAL SHEET  
H-10451

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.

for Bruce A. Olmstead Date: 3/8/94  
Dennis J. Hill  
Chief, 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.

Douglas G. Hennick Date: 3/16/94  
Commander Douglas G. Hennick, NOAA  
Chief, Pacific Hydrographic Section

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Final Approval

Approved:

J. Austin Yeager Date: 5/11/94  
J. Austin Yeager  
Rear Admiral, NOAA  
Director, Coast and Geodetic Survey

MARINE CHART BRANCH  
**RECORD OF APPLICATION TO CHARTS**

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-10451

**INSTRUCTIONS**

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.

1. Letter all information.
2. In "Remarks" column cross out words that do not apply.
3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

CHART	DATE	CARTOGRAPHER	REMARKS
11385-B	5-12-94	Ralph B. Ross	Full Part Before After Marine Center Approval Signed Via Drawing No. 22B Applied all sndg-curves-obstrs etc in full.
			Full Part Before After Marine Center Approval Signed Via Drawing No.
			Full Part Before After Marine Center Approval Signed Via Drawing No.
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