

10453

Diagram No. 1264-2

NOAA FORM 78-35A

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

DESCRIPTIVE REPORT

Type of Survey Hydrographic
Field No. AHP2-10-2-93
Registry No. H-10453

LOCALITY

State Florida
General Locality Choctawhatchee Bay
Sublocality Littles Bayou to
..... Alaqua Bayou
.....
..... 1993
.....
CHIEF OF PARTY
..... LT T.R. Waddington

LIBRARY & ARCHIVES

DATE April 29, 1994

10453

ref: L-786(94)
PRODUCTS

CPS
11385 A

(11388 N.C.)

HYDROGRAPHIC TITLE SHEET

H-10453

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.

AHP2-10-2-93

State Florida

General locality Choctawhatchee Bay

Locality Littles Bayou to Alaqua Bayou

Scale 1:10,000 Date of survey Feb. 24, 1993 - Apr. 26, 1993

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

Vessel NOAA Launch 0518

Chief of party LT Thomas R. Waddington, NOAA

Surveyed by AHP2 Personnel

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

Graphic record scaled by D. Elliott, C. Parker, J. Budlong

Graphic record checked by D. Elliott, C. Parker, J. Budlong

Verification by: I. Almacen Automated plot by PHS Xynetics Plotter

~~Produced by~~ I. Almacen

Evaluation by: I. Almacen

~~Reviewed by~~

Soundings in meters and decimeters
~~XXXXXX XXXX~~ at ~~MLW~~ MLLW

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

501-697

XWW 7/19/94

AWARDS SURF ✓ 5/25/94 SJV

DESCRIPTIVE REPORT TO ACCOMPANY
HYDROGRAPHIC SURVEY H-104553 10453

Field No. AHP-10-2-93

Scale: 1:10,000

Atlantic Hydrographic Party

Chief of Party: Lt. Thomas R. Waddington, NOAA

1992³

A. PROJECT

This survey was conducted in accordance with Hydrographic Project Instructions OPR-J259-AHP, Choctawhatchee Bay, Florida dated 3/9/92; these were amended by Change No. 1 dated 6/2/92; and Change No. 2 dated 9/30/92. This survey is designated as sheet "F" in the project instructions.

The purpose of project OPR-J259-AHP is to obtain modern hydrographic data to revise existing nautical charts of Choctawhatchee Bay, Florida. Charted depths are based primarily on lead line surveys conducted in 1935 and 1936.⁹ The water traffic in the bay includes commercial vessels transiting via the Intracoastal Waterway System (ICW), fishing vessels and pleasure boats.

B. AREA SURVEYED (*See EVAL RPT., Sec. 1*)

The area surveyed for H-10453 is eastern Choctawhatchee Bay, Florida from ^{*Littles*} Bowman Bayou to Alaqua Bayou. The approximate geographic limits are as follows:

North Latitude: 30°29.8'N
South Latitude: 30°23.0'N
East Longitude: 086°09.8'W
West Longitude: 086°13.2'W

This survey was conducted from 2/24/93 (DN 055) to 4/26/93 (DN 116).

C. SOUNDING VESSEL ✓

NOAA launch 0518 (EDP No. 0518), a 21-foot MonArk, was used to collect all data on this survey. No unusual problems were encountered with this launch during the survey.

D. AUTOMATED DATA ACQUISITION AND PROCESSING ✓

Version 4.03 of the PC-DAS suite of programs was used for on-line data acquisition on the survey launch. A list of all HP-DPS programs and versions used for data processing can be found in Appendix VI.* In addition to the HDAPS, the NOS program Velocity (Ver. 1.11) and WordPerfect (Ver. 5.1) were also used during this survey.

* *Filed with the hydrographic data.*

E. SONAR EQUIPMENT ✓

No side scan sonar equipment was available for this survey.

F. SOUNDING EQUIPMENT ✓

An Innerspace model 448 depth sounder, S/N 187, was used to collect all echo soundings on this survey. A standard lead line calibrated in meters, S/N 0518, was used during this survey for comparison readings with the depth sounder. A 5-meter long, wooden sounding pole, constructed according to HSG. No. 69, was used to obtain all pole soundings. No problems were encountered with any of the sounding equipment. Depths encountered in the survey area range from 0.6⁴ to 7.3^{5.5} meters.

G. CORRECTIONS TO ECHO SOUNDINGS (See EVAL RPT, Sec. 1)

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 2/21/92 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 final field sheet soundings using the HDAPS Reapply Depth Correctors function. Copies of the tables and support documentation are in the Survey Separates.* The following speed of sound casts were taken on this survey. ✓

<u>Cast</u>	<u>Date (DN)</u>	<u>Latitude</u>	<u>Longitude</u>	<u>Extended Depth</u>
01	02/17/93 (048)	30°26.0'N	086°12.0'W	5.2
02	02/25/93 (056)	30°26.0'N	086°12.0'W	5.2
03	03/09/93 (068)	30°26.0'N	086°13.5'W	5.8 8.5 Plots outside survey limits
04	03/22/93 (081)	30°26.0'N	086°13.5'W	10.4 " " " "
05	03/31/93 (090)	30°25.5'N	086°09.0'W	10.4 " " " "
06	04/07/93 (097)	30°25.5'N	086°09.0'W	10.4 " " " "
07	04/21/93 (111)	30°25.7'N	086°09.0'W	9.1 " " " "

Our periodic casts indicated that sound velocity correctors were negligible for this entire survey. Because Casts 3, 4, and 5 were the only ones which generated any corrector values (-0.1 meters), we recommend that only these three casts be applied during final processing. The bracketing days for these casts are outlined in the table below. ✓

<u>Cast No.</u>	<u>Table No.</u>	<u>Use for Days</u>
3	3	{ 055 - 059 060 - 074
4	4	075 - 085
5	5	086 - 094, 095-103, 104 - 110

* Filed with the hydrographic data.

Weather permitting, lead line comparisons were taken daily to determine instrument error. No instrument error was observed during these comparisons. The lead line was calibrated on 5/5/92 with a steel tape. A copy of the leadline comparison log and the leadline calibration form can be found in the Survey Separates.* A static draft of 0.3 meters was applied to on-line soundings through Offset Table No. 1* and to final field sheet soundings using the HDAPS Reapply Depth Correctors function. The draft was measured by subtracting the difference from a punch mark on the side of Launch 0518, 0.6 meters above the transducer, to the water surface.

Settlement and squat measurements for vessel 0518 were performed on 5/14/92 in Choctawhatchee Bay using the level method; data from this test are included in the Survey Separates.* Settlement and squat correctors were applied to on-line soundings through Offset Table No. 1* and to final field sheet soundings using the HDAPS Reapply Depth Correctors function.

The final field sheet was plotted using predicted tides determined from Pensacola, Florida, with the time and height correctors designated in section 5.9 of the project instructions. Weather and wind conditions during this survey had a far greater effect on the true water levels than did tidal action. This resulted in generally higher water levels during periods of southerly winds (when Gulf water is blown into the Bay), and lower water levels during periods of northerly winds. These wind-related effects did not appear to have much impact on our depth and contour comparisons. Approved water levels were requested from the Product and Services Branch, N/OES231, in a letter dated 4/27/93. A copy is included in Appendix V of this report.* Approved Tide Note is attached to this report.

H. CONTROL STATIONS (See EVAL RPT, Sec. 2)

The horizontal control datum for this project is the North American Datum of 1983. Five horizontal control stations, Choctawhatchee Bay Light 47 (056), ^{La Grange} LaGrange Bayou Light 1 (059), ^{La Grange} LaGrange Bayou Light 11 (060), CENTEL GPS Base (064), and Baytowne Marina Cal Point (065) were used on this survey. These stations were established to 3rd-order standards with GPS by AHP personnel in July and October. The Horizontal Control Report and the Horizontal Control Report Addendum for these positions were submitted to N/CG23322 in October and November 1992. These positions served as our GPS base station sites and also our launch performance checkpoint during work on this survey. Positions for these stations are shown in the Control Station list ^{included in} in Appendix III of this report.

I. HYDROGRAPHIC POSITION CONTROL

Survey Methods

Differential GPS (DGPS) was the method of positioning used for all hydrographic data acquired on this survey. Ashtech M-XII receivers (S/Ns 700283E1389 and 700157E1076) with antennas (S/N 700228C1572 and 700271A0064) were used for the reference station. An Ashtech Sensor (S/N 700417A1054) with Sensor antenna (S/N 700378A0275) was used as the remote station on Launch 0518. Ashtech-supplied Maxon VHF radios provided the datalink between the base station receiver and the launch sensor. We set our primary GPS base station site at Centel GPS Base (064). Prior to using the Centel base station, we ran the Monitor test at this site to check its susceptibility to multi-path problems; this test indicated 98.5% availability at a 1:10,000 survey scale. Results of this test were submitted in the Survey Separates with recently completed survey H-10448.

* Filed with the hydrographic data.

Because of unresolved DGPS radio-link problems in some portions of this survey, we had to set-up a short-term DGPS base station atop ^{La Grange} LaGrange Bayou Light 11 to complete the field work in these areas. Since Light 11 is a remote site with no power available, we were unable to run the Monitor program for this station; however, because it is an elevated light in the middle of the Bay surrounded only by water, multi-path was not a major concern at this site. This was confirmed through phone conversations with both Operations Section (N/CG241) personnel and Ashtech, Inc. technical personnel. On-line data acquired from this site were consistently stable and all performance checks agreed well. ✓

Daily DGPS performance checks, as required by the Field Procedures Manual, were accomplished by comparing the DGPS position of the vessel to our computed third-order positions of either the Baytowne Marina Cal Point, ^{La Grange} LaGrange Bayou Light 1, or Choctawhatchee Bay Light 47 all of which we established prior to survey start-up. To obtain a performance check, we would bring the launch alongside our checkpoint and note on the echogram the Easting, the Northing, the number of SVs, the HDOP, and the time of our observation. These values were then entered into a Lotus spreadsheet table which would compute our acceptable error margin (based on the HDOP) and also our observed difference between our known and observed position. The table of these comparisons is included in the Survey Separates.* All of our observed differences fell well within the allowable limit. ✓

During periods of GPS dead reckoning, we maintained the launch on a steady compass heading until we received a valid GPS position on the survey screen. If this position showed us still near the desired line we would maintain course along our planned line and then edit the bad positions in the post-survey mode; if we were well off-line, we would break the line and attempt to re-run it. We also experienced infrequent and short-term periods where our HDOP values exceeded the computed allowable limit of 3.8⁷⁵ for a 1:10,000 scale survey. Any data acquired during periods of High HDOP or Lost Lock was reviewed, then edited or rejected as warranted. ✓

J. SHORELINE (Sec EVAL RPT, Sec. 2)

Shoreline shown on the final field sheet was transferred by hand from TP-00339. This shoreline manuscript was originally compiled on NAD 1927 at 1:20,000 scale and then enlarged to 1:10,000 scale for use with this survey. This manuscript was then updated using 1991 NANCEI source data; in some instances within this survey area, these NANCEI-source revisions were accompanied by the note, "Spotty Source Data". This shoreline was transferred by hand onto the boat and final field sheets by computing conversion tick marks for NAD 27 to NAD 83. ✓

Shoreline verification was accomplished during inshore hydrographic data acquisition and by visual inspection. Verified shoreline features are shown in black ink on the final field sheet; they were assigned reference numbers which were hand plotted (along with heights) on the final field sheet. Because of minimal tide effects in this area, the time was not recorded with each reference number. In Alaqua Bayou, we took DPs on all shoreline features, some of which did appear on the TP-00339; only the new piers are included in the table below. The reference number descriptions, field notes, explanations of new shoreline features, and photographs of various features are located in the Daily Log, on the graphic record, and on the Boat Sheet. Charted shoreline should be superseded by shoreline from TP-00339, along with the features noted below. *Concur.* ✓

* Filed with the hydrographic data.

- ▶ The bridge fenders for the SR 331 bridge were positioned on 4/12/93 (DN 102) (Positions 1586 - 1589). Though the bridge structure caused some DGPS interference, all of these positions compared favorably with TP-00339 and have been plotted on the overlay. ✓
- ▶ The bulkhead ruins depicted along the SR 331 causeway do exist on both sides of the causeway; these features were verified and photographed on 4/13/93 (DN 103). ✓
- ▶ Most small tributaries located along the north and south shores of the Bay were shoaled in and inaccessible by survey launch. These are depicted within foul limits on the final field sheet. ✓
- ▶ The following shoreline features were identified on this survey that did not appear on either TP-00339; these are shown in red on the final field sheet. *These items have also been shown in red on the smooth sheet.*

<u>Position</u>	<u>Latitude</u>	<u>Longitude</u>	<u>Feature (Height)</u>
223	30°29'43.4"N	086°12'04.2"W	2 Piers in Ruins (1.0 ^{0.9} m)
224	30°29'45.8"N	086°12'04.3"W	Pier w/Covered Slip (1.0m)
225	30°29'48.3"N	086°12'03.7"W	T-shaped Pier (1.0m)
227	30°29'26.0"N	086°12'07.4"W	SE Corner of Small Island w/ Brick Ruins Awash (photo in Daily Log) ✓
229	30°29'22.4"N	086°11'40.3"W	Pier (1.0m)
234	30°29'32.9"N	086°11'42.6"W	Pier (1.0m)
235	30°29'34.5"N	086°11'43.6"W	Pier (1.0m)

- ▶ Position 1582 was a DP to re-position a pier as requested on TP-00339; the survey position agreed well with the T-sheet position. *Concl. This pier plots at Lat. 30°27'18.51" N, Long. 86°10'20.04" W.*

K. CROSSLINES ✓

A total of 35 linear nautical miles of cross-lines were run on H-10453; this is approximately 14% of the main scheme hydrography. Cross-line and main scheme soundings agree within 0.2 meters.

L. JUNCTIONS (See EVAL RPT., Sec. 5)

This survey junctions with recently completed surveys H-10448 to the west and H-10452 to the east, both 1:10,000 scale surveys from OPR-J259-AHP. Shoreline borders the north and south sides of the sheet. Comparisons between this survey and both H-10448 and H-10452 indicate good agreement between soundings and depth curves, with depth differences less than 0.2³ meters.

M. COMPARISON WITH PRIOR SURVEYS (See EVAL RPT., Sec. 6)

This survey was compared to the following prior survey:

<u>Survey No.</u>	<u>Scale</u>	<u>Year</u>
H-6449	1:10,000	1939

Three of the five AWOIS items (6895, 6896, and 6899) addressed during this survey originated from the prior survey. These items are addressed in the Item Investigation reports ^{included in this report.} in Appendix VI. The following is a summary of the comparison between this survey and the prior.

► Contours and depths between this survey and the prior agree well throughout. Depths also agree well, though current survey depths were four to six ^{feet} deeper in the area of the Intracoastal Waterway (ICW). A large, irregular hole ^{*} which appeared on the prior survey just west of the present SR 331 bridge was searched for by echosounder on 4/23/93 (DN 113); deepest depths encountered in this area were 13.1⁸ feet (4.0² meters), with no indications of the charted 37 foot sounding. Bottom samples acquired on this survey also agree well with the prior survey throughout the area.

** in the vicinity of latitude 30°23'28.0"N & Longitude 86°10'29.0"W.*

► Numerous notes appear on the prior survey indicating areas with piles, submerged logs, and fallen trees. In general, most of these features were still valid and have been addressed in the Daily Log and on the Boat Sheet. ^{*} Because of the numerous inshore foul areas found in the eastern portions of Choctawhatchee Bay, a general Mariners Caution Notice should be considered for Chart 11385. On 2/25/93 (DN 056) we addressed the numerous lines of visible piles shown on the prior survey in Alaqua Bayou. During chain drag operations we snagged numerous submerged piles in these areas.

Though we only positioned the following items, we suspect that most of the these rows of visible piles are now submerged and ^{the sites} should be charted as such. *according to this survey. Retain charted piles as submerged from prior survey H-6449 (1939)*

<u>Position</u>	<u>Latitude</u>	<u>Longitude</u>	<u>Height/Depth(-)</u>
172	30°29'32.5"N	086°12'01.9"W	Covered (+0.6 ⁷ m) @ MLLW
173	30°29'33.3"N	086°12'02.4"W	Bares (1.0 ⁰⁹ m) @ MHW
203	30°29'18.3"N	086°12'16.8"W	Covered (+0.4 ⁶ m) @ MLLW
219	30°29'41.8 ^{30.5} "N	086°12'00.7"W	Covered (+0.5 ⁶ m) @ MLLW
220	30°29'41.8"N	086°12'00.5"W	Covered Awash (0.1) @ MLLW
221	30°29'43.7"N	086°12'01.5"W	Covered Awash (0.1) @ MLLW
222	30°29'43.8"N	086°11'59.7"W	Uncovered (0.3 ⁴ m) @ MLLW

N. COMPARISON WITH THE CHART (See EVAL RPT., Sec. 7)

Comparisons were made with the following largest scale charts covering the survey area:

<u>Chart No</u>	<u>Scale</u>	<u>Edition</u>	<u>Date</u>
11385SC	1:40,000	20th	November 23, 1991
11388	1:80,000	15th	January 4, 1992

In addition to the three AWOIS items referenced in Section M, two additional AWOIS items (6906 and 6907) lie within this survey and are addressed in the Item Investigation reports ^{included in this report.} in Appendix VI. The coordinates and descriptions of all positioned items can be found in the DP/REMARKS printout, which is included with the survey data. ^{*} One Danger to Navigation Report was submitted for several uncharted or mischarted piles found on this survey; a copy of this report is ^{included in this report.} in Appendix I.

** Filed with the hydrographic data.*

We made a color depth plot in feet, which greatly aided our comparison of contours and soundings between this survey and the chart. Contours and depths agree well, with the only differences noted in the vicinity of the ICW and around the large charted hole just west of the SR 331 bridge; these differences were addressed in the comparison with the prior survey in Section M. The following was also noted during this comparison. ✓

► The presently charted vertical bridge clearance of 10 feet on the SR 331 bridge is no longer valid. The old bascule bridge has been replaced by a bridge with a fixed vertical clearance which we measured at 67.5 feet (20.6 meters) with a steel tape on 4/12/93 (DN 102) at 1925 GMT. Despite frequent attempts, we were unable to confirm this clearance with the USCG Aids to Navigation Unit in Pensacola, FL (904/455-2354). ✓

► Numerous visible, unmarked 6"-diameter, wooden piles were identified on 4/20/93 and 4/22/93 (DNs 111 and 112) and should be charted according to the following positions. These uncharted piles were reported in a Danger to Navigation letter dated 5/25/93 and have been plotted in red on the final field sheet. (*plotted in black on the smooth sheet*) ✓

<u>Position</u>	<u>Latitude</u>	<u>Longitude</u>	<u>Height</u>
2221	30°24'40.5"N	086°12'05.8"W	2.0m <i>above MHW</i>
2222	30°24'45.0"N	086°12'10.1"W	1.5m " "
2223	30°24'44.6"N	086°12'15.5"W	2.0m " "
2224	30°24'41.4"N	086°12'16.2"W	2.0m " "
2225	30°24'41.2"N	086°12'24.3"W	2.0m " "
2226	30°24'43.7"N	086°12'23.5"W	2.0m " "
2227	30°27'42.7"N	086°12'15.5"W	2.2 ² ₃ m " "
2228	30°27'45.6"N	086°12'24.6"W	2.0 ³ ₃ m " "
2229	30°27'49.3 ⁴ "N	086°12'20.7"W	2.5 ³ ₃ m " "
2231	30°27'57.9"N	086°12'24.6"W	1.0 ⁰ ₀ m " "
2232	30°28'10.9"N	086°12'42.1"W	2.0 ¹ ₀ m " "
2233	30°28'39.4"N	086°12'43.9"W	2.0 ² ₀ m - Center of 2 Piles (<i>above MHW</i>)

O. ADEQUACY OF SURVEY ✓

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

P. AIDS TO NAVIGATION ✓

There are 10¹ non-floating and 18 floating aids to navigation within this survey area. All of these aids appear to serve their intended purpose. The following table provides a comparison between survey, light list (USCG Light List (USCGLL) Vol IV, 1992 edition), and charted positions of all fixed aids to navigation. *Light "23" was located during survey H-10452. (Lat 30/23/49.44N, Long. 86/09/43.49W)* ✓

NAVAID	*USCGLL#	LLPOS	Distance/Bearing	
			Survey Position	from Charted Position
Choctawhatchee Bay				
Lt 28	29775 29845	(None)	30°24'13.5"N 86°10'33.5"W	22m N (PN 286) (dol)
Lt 34	29785 29875	(None)	30°24'35.6 ⁷ / ₅ "N 86°11'14.4 ⁵ / ₅ "W	40m W (PN 293) (dol)
Lt 40	29815 29905	(None)	30°24'57.0"N 86°11'49.7"W	On Station (PN 299) (dol)
Lt 46	29845 29935	(None)	30°25'20.2"N 86°12'27.7"W	On Station (PN 305) (dol)
LaGrange Bayou				
Lt 1	29850 29940	30°25.9 086°12.5	30°25'53.4 ⁵ / ₅ "N 86°12'32.2"W	28m E (PN 306) (dol)
Lt 5	29860 29950	(None)	30°26'41.3"N 86°11'01.7 ⁸ / ₅ "W	On Station (PN 308) (dol)
Lt 11	29875 29965	(None)	30°27'16.3"N 86°09'56.2"W	On Station (PN 311) (dol)
Dbn 3	29855 29945	(None)	30°26'17.7"N 86°11'47.2 ³ / ₅ "W	On Station (PN 307)
Dbn 7	29865 29955	(None)	30°26'52.9"N 86°10'40.6"W	85m SW (PN 309)
Dbn 9	29870 29960	(None)	30°27'02.1"N 86°10'23.2"W	200m SW (PN 310)

* USCGLL# from 1993 LIGHT LIST (Vol. IV)

Changes recommended to the charted vertical clearance for the SR 331 bridge were made in Section N. There were no overhead cables, overhead pipelines, or ferry routes within the limits of this survey. *Conclur.*

Q. STATISTICS ✓

<u>Description</u>	<u>Quantities</u>
Total Positions	2408 2504
Total Nautical Miles of Hydrography	288.3
Total Nautical Miles of Chain drag	0
Sq. Nautical Miles of Hydrography	13
Days of Production	17
Detached Positions	72
Bottom Samples	48
Tide Stations	4
Velocity Casts	7

R. MISCELLANEOUS ✓

Bottom samples were taken as directed in Section 6.7 of the project instructions. Bottom sample positions and descriptions 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,* section II. No significant currents of any kind were encountered during this survey.

The survey launch used to acquire data on this survey is limited by draft to waters deeper than 0.5 meters. Because of minimal tidal ranges, we were unable to approach the inshore shoal areas which exist throughout this survey area. ✓

S. RECOMMENDATIONS

The only noticeably dynamic area encountered throughout this project (not just on this survey) is in the vicinity of the Destin East Pass and to the west where the ICW enters into the Narrows. The bottom in this area is largely fine sand and is subject to storm surge and stronger tidal currents which lead to frequent shifting and shoaling. The Corps of Engineers is presently tasked with maintaining the channel depths in this area, though there is some local concern about the adequacy of this maintenance. Any future survey requirements in this area should probably focus more on this particular area and possibly in resolving any recent unsurveyed chart items. Other than shoreline changes, which can be better detected with aerial photography, the rest of this Bay appears mostly stable, with very few bottom topography changes noted since the 1935^{& 1938} prior surveys. *Concur.*

* Filed with the hydrographic data.

T. REFERRAL TO REPORTS ✓

<u>Titles</u>	<u>Transmittal Information</u>
Horizontal Control Report for OPR-J259-AHP	Field Photogrammetry Section N/CG23322, Norfolk, VA,
Descriptive Report to Accompany Survey H-10448	Pacific Hydrographic Section N/CG245, Seattle, WA
Descriptive Report to Accompany Survey H-10452	Pacific Hydrographic Section N/CG245, Seattle, WA
Chart Sales Agent Report	Chart Distribution Branch N/CG33, Rockville, MD
User Evaluation Report	Atlantic Hydrographic Section N/CG244, Norfolk, VA
Chart Inspection Report	Atlantic Hydrographic Section N/CG244, Norfolk, VA
Coast Pilot Report	Pacific Hydrographic Section N/CG245, Seattle, WA

Submitted By: The Atlantic Hydrographic Party

AWOIS NO:6895

Item Description: Submerged Dangerous Wreck

Source: H-6449/39

AWOIS Position: Lat - 30/29/18.70N Lon - 086/12/09.8W

Required Investigation: BD, DI, VS - 100m Radius

Chart(s) Affected: 11385

INVESTIGATION

Date(s)/DN(s): 2/25/93 and 4/13/93 (056 and 103)

Position Numbers: 199 Launch Number: 0518

Investigation Used: CD, DI Water Visibility: 2m

Position Determined By: DGPS

Investigation Summary: During a chain drag* conducted on 2/25/93 (DN 056) we encountered a solid hang. On 4/13/93 (DN 103) a subsequent dive investigation revealed the remains of an old wooden wreck lying in 1.3m of water. The wreck is mostly silted in and projects less than 0.3m above the bottom. The remains are approximately 10m long by 4m wide and lie along a north/south direction. Position 199 was taken at the wreck and a leadline least depth was obtained on the diver-determined high point.

* Chain drag operations also covered extent of the charted visible piles in Alaquo Bayou. Reference Paragraph M of DR for further discussion. Reference

CHARTING RECOMMENDATION

The hydrographer recommends that the presently charted Submerged Dangerous Wreck be revised as reflected below. Concur.

Recommended Position: Lat - 30/29/^{22.00}21.9 N Lon - 086/12/^{07.97}07.9 W

Recommended Least Depth: ^{0.6}1.0m at MLLW (by leadline) (based on actual tides)
^{0.6wk}

COMPILATION NOTES

Chart

Applied As

NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION
 NATIONAL OCEAN SERVICE
 COAST AND GEODETIC SURVEY RADM J. A. YEAGER DIRECTOR

CHAIN DRAG, ALAQUA BAYOU
 PS 11 SHEET F



SOUNDING SHEET: Page Plot REG. NO:	
HORIZONTAL DATUM: NAD 83	PROJECT: OPR-J259
SOUNDING DATUM: Mean Lower Low Water	CONTROL LATITUDE: 030:20:00.000
PROJECTION: MODIFIED UTM PROJECTION	CENTRAL MERIDIAN: 086:22:00.000
SCALE: 1: 10000	SOUNDINGS IN:
SURVEYED BY: AHP DBE	3/2/93

*CHAIN DRAG
 TRACK PLOT
 PS # 11*

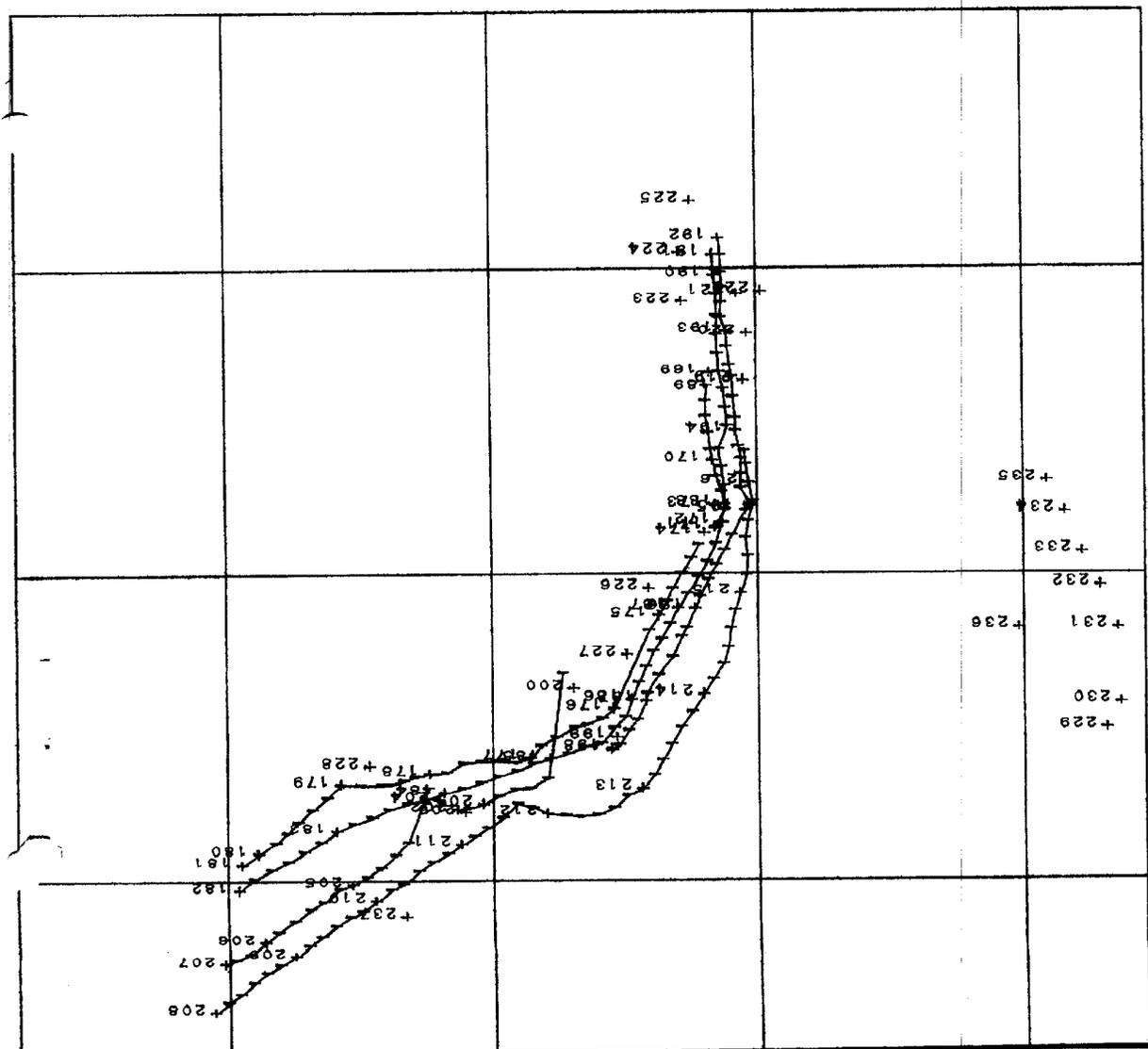
DN 056

LON 86:12:30

LON 86:12:15

LON 86:12:00

LON 86:11:45



LAT 30:29:45 LAT 30:29:30 LAT 30:29:15

AWOIS NO:6896

Item Description: Visible Wreck

Source: H-6449/39

AWOIS Position: Lat - 30/28/55.7N Lon - 086/12/01.8W

Required Investigation: VS, BD, DI -- 100m radius

Chart(s) Affected: 11385

INVESTIGATION

Date(s)/DN(s): 4/13/93 (103)

Position Numbers: 1722

Launch Number: 0518

Investigation Used: DI

Water Visibility: 2m

Position Determined By: DGPS

Investigation Summary: On 4/13/93 (DN 103) we dropped a buoy at Position 1722 and conducted a 100 meter radius dive/wade search throughout the area. No hangs were encountered nor any signs of obstructions visible. The bottom in this area is extremely silty and it is likely that any old wreckage has long ago been silted over.

CHARTING RECOMMENDATION

The hydrographer recommends that the ~~Dangerous-Submerged~~ ^{charted visible} Wreck be removed from the chart. *Concur.*

Recommended Position: Lat - Lon -

Recommended Least Depth:

COMPILATION NOTES

Chart

Applied As

AWOIS NO:6899

Item Description: Two Visible Piles

Source: Unknown

AWOIS Position: Lat - 30/27/13.7N Lon - 086/10/13.8W

Required Investigation: BD, DI, VS - 100m Radius

Chart(s) Affected: 11385

INVESTIGATION

Date(s)/DN(s): 4/12/93 (102)

Position Numbers: 1583 Launch Number: 0518

Investigation Used: DI Water Visibility: 2m

Position Determined By: DGPS

Investigation Summary: On 4/12/93 (DN 102) we dropped a buoy at Position 1583 and conducted a 100 meter radius dive/wade search throughout the area; this was the center point of the two piles. No hangs were encountered nor any signs of obstructions visible.

CHARTING RECOMMENDATION

The hydrographer recommends that both of the presently charted Piles be removed from the chart. *Concur.*

Recommended Position: Lat - Lon -

Recommended Least Depth:

COMPILATION NOTES

Chart

Applied As

AWOIS NO:6906

Item Description: Obstruction - Bridge Fender Ruins

Source: CL697/84-COE

AWOIS Position: Lat - 30/24/01.7N Lon - 086/10/6.8W

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

Chart(s) Affected: 11385

INVESTIGATION

Date(s)/DN(s): 4/12/93 (102)

Position Numbers: 1584

Launch Number: 0518

Investigation Used: DI

Water Visibility: <0.3m

Position Determined By: DGPS

Investigation Summary: On 4/12/93 (DN 102) we dropped a buoy at Position 1584 and conducted a 50 meter radius dive/wade search throughout the area. We dove down along the existing fender and then swam an arc out into the channel. Though visibility was poor during our circle search, we did not hang or encounter any major projections off of the bottom. We did feel some rock rip-rap and wooden timbers lying flat on the bottom; these features projected little off the bottom and were largely silted over.

CHARTING RECOMMENDATION

The hydrographer recommends that the Dangerous Submerged Obstruction be removed from the chart.

Concur.

Recommended Position: Lat - Lon -

Recommended Least Depth:

COMPILATION NOTES

Chart

Applied As

AWOIS NO:6907

Item Description: Shoaling Reported

Source: CL2036/72-USPS

AWOIS Position: Lat - 30/23/45.7N Lon - 086/10/16.7W

Required Investigation: ES

Chart(s) Affected: 11385

INVESTIGATION

Date(s)/DN(s): 4/19/93 (109)

Position Numbers: 1843-44, 1849-50, 1899-1900 **Launch Number:** 0518

Investigation Used: ES **Water Visibility:** 1m

Position Determined By: DGPS

Investigation Summary: The mainscheme hydrography collected on 4/19/93 (DN 109) showed no indications of shoaling in the vicinity of this item. This area appears to be under the SR 331 bridge where the causeway and the bridge supports meet. This area is full of large rocks and rip-rap which are in place to help prevent erosion. A reduced line spacing development was not possible in this area without potential damage to the survey launch. Although the extreme nearshore areas were foul with rocks and rip-rap, no evidence of shoaling was seen on the hydro in this area.

CHARTING RECOMMENDATION

The hydrographer recommends that the Shoaling Reported notation be removed from the chart. *Concur.*

Recommended Position: Lat - Lon -

Recommended Least Depth:

COMPILATION NOTES

Chart

Applied As

001	F	030:23:40.692	086:23:19.545	2	250	0.0	0.0	C	00/00/88	ALBERT
002		030:31:09.003	086:29:32.298	2	250	0.0	0.0		00/00/88	ANDERSON
003	F	030:24:28.023	086:29:16.327	1	250	0.0	0.0		00/00/87	BACON
004		030:25:28.023	086:36:00.545	0	250	0.0	0.0		00/00/87	BARN
005		030:27:10.273	086:34:38.679	0	250	0.0	0.0		00/00/87	BEV
006		030:25:32.166	086:33:20.046	5	250	0.0	0.0		00/00/87	BLACK POINT LT 2
007		030:29:22.697	086:26:48.230	2	250	0.0	0.0		00/00/88	BLUE
008		030:29:57.235	086:26:34.601	0	250	0.0	0.0		00/00/88	BLUEWATER BAY RADIO TOWER
009		030:29:20.989	086:25:22.040	0	250	0.0	0.0		00/00/88	BLUEWATER BAY TANK
010		030:27:38.681	086:28:23.675	0	250	0.0	0.0		00/00/88	BOGGY BAYOU ENTRANCE LIGHT
011		030:28:45.011	086:28:28.689	0	250	0.0	0.0		00/00/88	BOGGY BAYOU LIGHT 3
012		030:30:16.389	086:29:04.860	0	250	0.0	0.0		00/00/88	BOGGY BAYOU LIGHT 9
013		030:29:42.528	086:28:45.043	2	250	0.0	0.0		00/00/88	BORTHWICK
014		030:30:17.668	086:27:17.274	2	250	0.0	0.0		00/00/88	BUSTLE
015		030:29:34.965	086:28:41.958	2	250	0.0	0.0		00/00/88	BYRNE
016		030:23:38.902	086:31:00.977	17	250	0.0	0.0		00/00/82	CENTER
017		030:23:38.944	086:31:01.000	19	250	0.0	0.0		00/00/88	CENTER ECC
018		030:22:51.141	086:30:37.534	10	250	0.0	0.0		00/00/88	CHOCTAWHATCHEE BAY ENT LIGHT 3
019		030:22:51.380	086:30:26.614	10	250	0.0	0.0		00/00/88	CHOCTAWHATCHEE BAY ENT LIGHT 4
020		030:24:16.467	086:31:10.874	5	250	0.0	0.0		00/00/87	CHOCTAWHATCHEE BAY ENT LT 15
021	F	030:25:42.645	086:18:47.114	3	250	0.0	0.0	2	00/00/88	CHOCTAWHATCHEE BAY LIGHT 49
022	F	030:25:26.589	086:26:08.924	0	250	0.0	0.0		00/00/88	CHOCTAWHATCHEE BAY LIGHT 51
023	F	030:29:35.370	086:29:21.062	5	250	0.0	0.0	A	00/00/88	CHOCTAWHATCHEE BAY LIGHT 53
024		030:27:28.889	086:36:04.960	0	250	0.0	0.0		00/00/87	CHULA
025		030:28:21.157	086:18:15.740	3	250	0.0	0.0		00/00/88	CLIFF
026	F	030:25:02.748	086:29:18.198	1	250	0.0	0.0	7	00/00/87	COBB
027		030:24:22.478	086:29:09.593	1	250	0.0	0.0		00/00/87	COLD
028		030:30:27.212	086:27:12.316	1	250	0.0	0.0		00/00/88	COON
029		030:25:43.141	086:36:44.967	0	250	0.0	0.0		00/00/87	CROCKET
030		030:30:15.971	086:27:21.697	2	250	0.0	0.0		00/00/88	CUDDY
031		030:28:51.912	086:29:11.347	2	250	0.0	0.0		00/00/88	DRONE
032		030:25:23.190	086:18:47.717	1	250	0.0	0.0		00/00/88	FOUR MILE POINT
033		030:28:23.592	086:18:20.521	0	250	0.0	0.0		00/00/88	HAMMOCK POINT RANGE MARKER
034		030:26:30.849	086:35:27.240	0	250	0.0	0.0		00/00/87	HAPPY
035		030:30:12.991	086:30:03.237	1	250	0.0	0.0		00/00/88	HIDDEN
036	F	030:27:21.641	086:30:50.178	1	250	0.0	0.0	9	00/00/88	JACK
037	F	030:27:06.246	086:25:16.733	2	250	0.0	0.0	A	00/00/87	JIM
038	F	030:24:59.669	086:29:24.435	1	250	0.0	0.0		00/00/87	JOES
039		030:23:59.515	086:35:59.092	5	250	0.0	0.0		00/00/85	JOHN T
040		030:27:09.517	086:32:25.949	1	250	0.0	0.0		00/00/88	MIKE
041		030:28:04.877	086:35:25.518	0	250	0.0	0.0		00/00/87	NABGRS
042		030:27:00.211	086:35:34.735	0	250	0.0	0.0		00/00/87	PARADISE
043		030:27:40.176	086:35:45.204	-0	250	0.0	0.0		00/00/87	PARK
044		030:27:02.655	086:34:45.811	1	250	0.0	0.0		00/00/87	PHILLIPS
045		030:27:20.039	086:32:40.319	1	250	0.0	0.0		00/00/88	PK EYC
046		030:30:41.016	086:27:15.452	2	250	0.0	0.0		00/00/88	PK POST
047		030:30:12.856	086:26:21.706	7	250	0.0	0.0		00/00/88	ROCK
048		030:29:02.788	086:27:08.628	0	250	0.0	0.0		00/00/88	ROCKY BAYOU ENTRANCE LIGHT 1
049		030:28:07.998	086:29:03.127	2	250	0.0	0.0		00/00/88	SHOTGUN
050		030:30:17.986	086:29:06.798	2	250	0.0	0.0		00/00/88	SMITH
051		030:26:54.824	086:36:00.148	0	250	0.0	0.0		00/00/87	SWEENEY
052		030:26:05.036	086:35:05.901	0	250	0.0	0.0		00/00/87	SYB WATER TANK
053	F	030:28:28.475	086:18:46.838	3	250	0.0	0.0	1	00/00/92	GRASSY TEMP
054	F	030:23:39.760	086:34:09.178	2	250	0.0	0.0	0	00/00/56	CONTRAVES ONE
055		030:26:30.567	086:35:36.990	35	250	0.0	0.0		05/15/92	BANK
056	F	030:26:13.200	086:14:31.516	5	250	0.0	0.0	5	07/03/92	CHOCTAWHATCHEE BAY LIGHT 47,92
057	F	030:22:39.298	086:18:28.900	91	250	0.0	0.0	4	07/22/92	CENTEL(CENTEL MICROWAVE TRW)
058		030:22:36.086	086:10:48.267	75	239	0.0	0.0		03/01/91	BOWMAN(EGLIN AFB BOWMAN TWR)
059		030:25:53.599	086:12:32.159	3	239	0.0	0.0		10/10/92	LA GRANGE BAYOU LIGHT 1,1992
060		030:27:16.322	086:09:56.287	3	239	0.0	0.0		10/10/92	LA GRANGE BAYOU LIGHT 11,1992
061		030:28:11.639	086:08:26.360	3	239	0.0	0.0		10/10/92	LA GRANGE BAYOU LIGHT 22,1992
062		030:28:54.882	086:12:19.173	1	239	0.0	0.0		10/10/92	ALAQ
063		030:23:56.864	086:13:42.634	1	239	0.0	0.0		10/10/92	372-9326B
064		030:22:38.852	086:18:27.347	0	250	0.0	0.0		10/28/92	CENTEL GPS BASE,1992
065		030:23:21.277	086:19:39.766	0	239	0.0	0.0		10/28/92	BAYTOWNE MARINA CAL POINT,1992

NOAA FORM 76-40
(6-74)

SEE L-786 (99)

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

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

Replaces C&GS Form 567.
 TO BE CHARTED
 TO BE REVISED
 TO BE DELETED

REPORTING UNIT
(If field Party, Ship or Office)
AHP

STATE
Florida

LOCALITY
Choctawhatchee Bay

DATE
4/30/93

OPR PROJECT NO.
OPR-J259

HAVE HAVE NOT
JOB NUMBER
AHP-10-2-93

DATUM
NAD 83

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

CHARTING NAME	DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses.)	LATITUDE		LONGITUDE		OFFICE	FIELD	CHARTS AFFECTED
		° / ' / D.M. Meters	° / ' / D.P. Meters	° / ' / D.M. Meters	° / ' / D.P. Meters			
Light 28	No published position. USCGLL # 29775 Choctawhatchee Bay ICW = C.B.I.	30 24	13.5	86 10	33.5		F-3-L-DGPS	11385
Light 34	No published position. USCGLL # 29785 C.B.I.	30 24	35.6 ⁵	86 11	14.4 ⁵		F-3-L-DGPS	11385
Light 40	No published position USCGLL # 29815 C.B.I.	30 24	57.0	86 11	49.7		F-3-L-DGPS	11385
Light 46	No published position USCGLL # 29845 C.B.I.	30 25	20.2	86 12	27.7		F-3-L-DGPS	11385
Light 1	Published @ 30-25.9/ 86-12.5 USCGLL # 29850 La Grange Bayou	30 25	53.4 ⁵	86 12	32.2		F-3-1-DGPS	11385
Light 5	No published position. USCGLL # 29860 La Grange Bayou = L.G.B.	30 26	41.3	86 11	01.7 ⁸		F-3-L-DGPS	11385
Light 11	No published position. USCGLL # 29875 L.G.B.	30 27	16.3	86 09	56.2		F-3-L-DGPS	11385
Dbn 3	No published position. USCGLL # 29855 L.G.B.	30 26	17.7	86 11	47.2 ³		F-3-L-DGPS	11385
Dbn 7	No published position. USCGLL # 29865 L.G.B.	30 26	52.9	86 10	40.6		F-3-L-DGPS	11385
Dbn 9	No published position. USCGLL # 29870 L.G.B.	30 27	02.1	86 10	23.2		F-3-L-DGPS	11385

End of document.

RESPONSIBLE PERSONNEL

NAME

ORIGINATOR

- PHOTO FIELD PARTY
- HYDROGRAPHIC PARTY
- GEODETIC PARTY
- OTHER (Specify)

Lt. Thomas R. Waddington, Chief, NOAA
Atlantic Hydrographic Party.
David B. Elliott - Launch Chief

TYPE OF ACTION

OBJECTS INSPECTED FROM SEAWARD

Differential GPS

FIELD ACTIVITY REPRESENTATIVE

FORMS DETERMINED AND/OR VERIFIED

OFFICE ACTIVITY REPRESENTATIVE

FORMS ORIGINATED BY QUALITY CONTROL
AND REVIEW GROUP AND FINAL REVIEW
ACTIVITIES

- REVIEWER
- QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE

INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION'
(Consult Photogrammetric Instructions No. 64.)

FIELD (Cont'd)

- B. Photogrammetric field positions** require entry of method of location or verification, date of field work and number of the photograph used to locate or identify the object.
EXAMPLE: P-8-V
8-12-75
74L(C)2982
- II. TRIANGULATION STATION RECOVERED
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
- III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH
Enter 'V-Vis.' and date.
EXAMPLE: V-Vis.
8-12-75

OFFICE

I. OFFICE IDENTIFIED AND LOCATED OBJECTS
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

FIELD

- I. NEW POSITION DETERMINED OR VERIFIED
Enter the applicable data by symbols as follows:
F - Field
L - Located
V - Visually
1 - Triangulation
2 - Traverse
3 - Intersection
4 - Resection
5 - Field Identified
6 - Theodolite
7 - Planetable
8 - Sextant

A. Field positions* require entry of method of location and date of field work.
EXAMPLE: F-2-6-L
8-12-75

*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.

**PHOTOGAMMETRIC FIELD POSITIONS are dependent entirely, or in part, upon control established by photogrammetric methods.



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
 NATIONAL OCEAN SERVICE
 Coast and Geodetic Survey
 Norfolk, Virginia 23510-1114

Atlantic Hydrographic Party
 439 West York St.
 Norfolk, VA 23510-1114

**ADVANCE
 INFORMATION**

May 25, 1993

COPY

Commander (OAN), 8th U. S. Coast Guard District
 Hale Boggs Federal Building
 501 Magazine Street
 New Orleans, LA 70130-3396

Dear Sir:

While conducting a basic hydrographic survey (Registry No. H-10453) of Choctawhatchee Bay, Florida, the following uncharted features were identified as dangers to navigation and are recommended for inclusion in the Local Notice to Mariners; these are all unmarked, visible, six-inch diameter piles. The positions are in NAD 83 datum and the elevations have been reduced to Mean Lower Low Water (MLLW) using predicted tides. This information affects Chart 11385, 20th Edition/February 1992, NAD 83 datum.

<u>Position</u>	<u>Latitude</u>	<u>Longitude</u>	<u>Height</u>
2221	30°24'40.5"N	086°12'05.8"W	2.0m
2222	30°24'45.0"N	086°12'10.1"W	1.5m
2223	30°24'44.6"N	086°12'15.5"W	2.0m
2224	30°24'41.4"N	086°12'16.2"W	2.0m
2225	30°24'41.2"N	086°12'24.5"W	2.0m
2226	30°24'43.7"N	086°12'23.5"W	2.0m
2227	30°27'42.7"N	086°12'15.5"W	2.2m
2228	30°27'45.6"N	086°12'24.6"W	3.0m
2229	30°27'49.3"N	086°12'20.7"W	2.5m
2231	30°27'57.9"N	086°12'24.6"W	1.0m
2232	30°28'10.9"N	086°12'42.1"W	2.0m
2233	30°28'39.4"N	086°12'43.9"W	2.0m - Center of 2 Piles

A chart section of this area, showing the location of these dangers, is also included. Questions concerning this report should be directed to myself at 904/492-1050 or to the Pacific Hydrographic Section at 206/526-6853.

Sincerely,

Thomas Waddington

LT Thomas Waddington, NOAA
 Chief, Atlantic Hydrographic Party

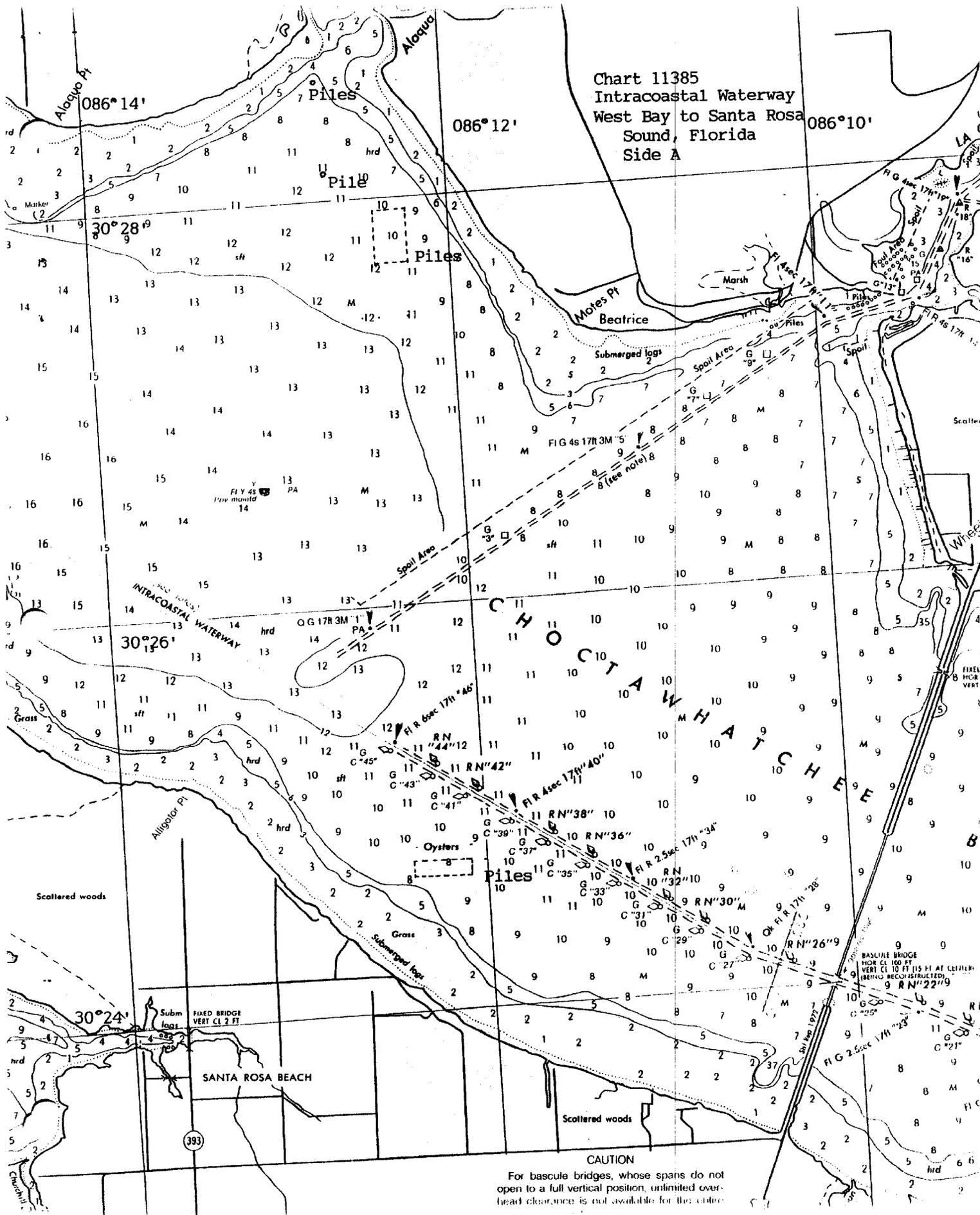
Enclosure

ADVANCE INFORMATION

N/CG221



Chart 11385
 Intracoastal Waterway
 West Bay to Santa Rosa
 Sound, Florida
 Side A



APPROVAL SHEET

**BASIC HYDROGRAPHIC SURVEY
OPR-J259/93
AHP2-10-2-93
H-10453
1993**

This basic hydrographic survey was conducted in accordance with the project instructions for OPR-J259-AHP, 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 basic hydrographic survey for the area described in Section B of this report.

Thomas R. Waddington
**Thomas R. Waddington
Lieutenant, NOAA
Chief, Atlantic Hydrographic Party**

ORIGINAL



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

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE: July 13, 1993

MARINE CENTER: Pacific

OPR: J259

HYDROGRAPHIC SHEET: H-10453

LOCALITY: Choctawhatchee Bay, Florida, Bowman Bayou to Alaqua Bayou

TIME PERIOD: February 24 - April 26, 1993

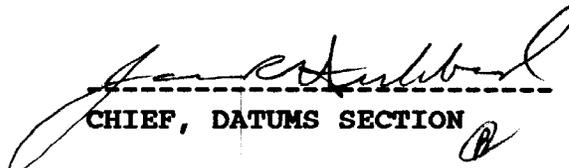
TIDE STATION USED: 872-9376 Santa Rosa, Hogtown Bayou, Fl.
Lat. $30^{\circ} 23.9'N$ Lon. $86^{\circ} 13.7'W$

PLANE OF REFERENCE (MEAN LOWER LOW WATER): = 1.09 feet
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: = 0.6 foot

REMARKS: RECOMMENDED ZONING

Heights are direct, and apply a +10 minute time correction to Santa Rosa, Fl. (872-9376).

NOTE: Hourly heights are tabulated on Central Standard Time.


CHIEF, DATUMS SECTION



GEOGRAPHIC NAMES

Name on Survey	A ON CHART NO. 11385 SC B ON PREVIOUS SURVEY NO. TP-00339 C ON U.S. QUADRANGLE MAPS D FROM LOCAL INFORMATION E ON LOCAL MAPS F P.O. GUIDE OR MAP G RAND McNALLY ATLAS H U.S. LIGHT LIST K										
	ALAQUA BAYOU	X	X								
ALAQUA CREEK	X	X									2
BEAR CREEK											3
BOWMAN BAYOU	X	X									4
CHOCTAWHATCHEE BAY	X	X									5
FLORIDA (title)	X	X									6
LA GRANGE BAYOU	X										7
LITTLES BAYOU	X	X									8
MOTES POINT	X	X									9
PINEY POINT											10
WEST BAYOU	X	X									11
											12
											13
											14
											15
											16
											17
											18
											19
											20
											21
											22
											23
											24
											25

Approved:

Charles P. Huntington
Chief Geographer - H/CG 245

NOV - 9 1993

NOAA FORM 77-27(H) (9-83)		U.S. DEPARTMENT OF COMMERCE		REGISTRY NUMBER		
HYDROGRAPHIC SURVEY STATISTICS				H-10453		
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	1					
ENVELOPES						
VOLUMES	1					
CAHIERS						
BOXES						
SHORELINE DATA						
SHORELINE MAPS (List): TP-00339						
PHOTOBATHYMETRIC MAPS (List):						
NOTES TO THE HYDROGRAPHER (List):						
SPECIAL REPORTS (List):						
NAUTICAL CHARTS (List):						
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						2408
POSITIONS REVISED						
SOUNDINGS REVISED						
CONTROL STATIONS REVISED						
				TIME-HOURS		
				VERIFICATION	EVALUATION	TOTALS
PRE-PROCESSING EXAMINATION						
VERIFICATION OF CONTROL						
VERIFICATION OF POSITIONS				43.0		43.0
VERIFICATION OF SOUNDINGS				49.0		49.0
VERIFICATION OF JUNCTIONS						
APPLICATION OF PHOTOBATHYMETRY						
SHORELINE APPLICATION/VERIFICATION						
COMPILATION OF SMOOTH SHEET				30.0		30.0
COMPARISON WITH PRIOR SURVEYS AND CHARTS					11.0	11.0
EVALUATION OF SIDE SCAN SONAR RECORDS						
EVALUATION OF WIRE DRAGS AND SWEEPS						
EVALUATION REPORT					27.0	27.0
GEOGRAPHIC NAMES						
OTHER*						
*USE OTHER SIDE OF FORM FOR REMARKS				TOTALS	122.0	38.0
				122.0	38.0	160.0
Pre-processing Examination by LT D. Haines				Beginning Date 2/24/93	Ending Date 4/26/93	
Verification of Field Data by I. Almacen				Time (Hours) 122.0	Ending Date 11/19/93	
Verification Check by				Time (Hours)	Ending Date	
Evaluation and Analysis by I. Almacen				Time (Hours) 38.0	Ending Date 11/30/93	
Inspection by B. Olmstead				Time (Hours) 54	Ending Date 04/01/94	

EVALUATION REPORT H-10453

1. INTRODUCTION

Survey H-10453 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
CHANGE NO. 3, dated March 25, 1993

This survey was conducted in Florida, on the eastern section of Chactawhatchee Bay, covering the area from Littles Bayou to Alaqua Bayou. It includes the Intracoastal Waterway and the channel leading to La Grange Bayou. The survey area is bounded on the north and south by the shoreline and stretches from longitude 86/09/42.00W to longitude 86/13/12W. The foreshore areas generally consists of shallow and muddy beaches. The bottom is generally made up of mud mixed with sand. Depths range from 0.5 to 5.5 meters.

Predicted tides for Pensacola, Florida, gage 872-9840, were used for the reduction of soundings during field processing. Approved hourly heights zoned from Santa Rosa (Hogtown Bayou), Florida, gage 872-9376, 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 offset values and sound velocity correctors are adequate. An accompanying computer printout contains the parameters and the correctors.

A digital file has been generated for this survey as required by the specifications contained in 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 and the 1992 Horizontal Control Reports for OPR-J259-AHP including an addendum to this report, contain adequate discussions of horizontal control and hydrographic positioning.

Differential GPS(DGPS) was used to control this survey. GPS stations Centel GPS Base, 1992, Choctawhatchee Bay Light 47, 1992, La Grange Bayou Light 1, 1992, La Grange Bayou Light 11, 1992 and Baytowne Marina Cal Point, 1992, were established to Third-Order accuracy. These control stations served as DGPS reference sites and calibration points during this survey.

Positions of horizontal control stations used during this survey are field values based on NAD 83. The smooth sheet and accompanying overlays are annotated with NAD 27 adjustment ticks 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: 0.712 seconds (21.922 meters)
Longitude: -0.208 seconds (-5.555 meters)

The year of establishment of control stations shown on the smooth sheet originates with the previously referenced horizontal control reports.

There are (83) cases during this survey where the maximum allowable horizontal dilution of precision (HDOP) limits of 3.75 have been exceeded particularly in areas close to shore and along SR 331 bridge which expands across the bay. A review of the data, however, shows that the positioning of soundings located by these fixes were consistent with the surrounding information and are considered acceptable. None of these survey positions are used to locate dangers to navigation. Daily DGPS performance checks were conducted in the field and found adequate.

The following registered shoreline map applies to this survey.

	<u>Photo Date</u>	<u>Scale</u>
TP-00339	Jan 1977 Jan/Feb.1978	1:20,000

This shoreline map was originally compiled on NAD27 datum. It was updated using the 1991 NANCI source data and applied to this survey.

New shoreline features were located during this survey. They are shown in solid and dashed red lines on the smooth sheet. The following revisions are supported with positional information and are considered adequate to supersede the photogrammetrically delineated shoreline within the common area.

<u>Feature</u>	<u>Latitude(N)</u>	<u>Longitude(W)</u>
Pier	30/29/22.39	86/11/40.33
Pier	30/29/23.64	86/11/39.54
Pier	30/29/33.00	86/11/42.65
Pier	30/29/34.52	86/11/43.66
Pier	30/29/45.81	86/12/04.35
Pier	30/29/48.31	86/12/03.68
Pier ruins	30/29/43.37	86/12/04.19

3. HYDROGRAPHY

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 on the smooth sheet. However, the hydrographer was unable to develop the near shore areas and define the zero depth curves. The

range of tide within the area was too small and the inshore portions of this survey are too shallow for approach by boat.

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 1991 Edition.

5. JUNCTIONS

Survey H-10453 junctions with the following surveys.

<u>Survey</u>	<u>Year</u>	<u>Scale</u>	<u>Area</u>
H-10448	1993	1:10,000	West
H-10452	1993	1:10,000	East

The junctions with surveys H-10448 and H-10452 are complete. Comparison is satisfactory, however, some soundings were transferred from survey H-10452 to delineate depth curves and show shoaler information within the adjoining area.

6. COMPARISON WITH PRIOR SURVEYS

H-6449(1939), 1:10,000

Survey H-6449 provides the basic coverage of the entire area of this survey. Comparison with this 1939 survey is considered good. The present soundings are generally within 0.3 meter (1 foot) of the prior, except along the area covered by the Intracoastal Waterway (ICW).

The Intracoastal Waterway system around Choctawhatchee Bay did not exist during the 1939 survey. The present survey depths are noted to be deeper by about 1.2 to 1.8 meters (4-6 feet) along the waterway.

The processes of erosion and accretion since the last survey have caused significant changes along the coast. The shoreline (HWL) has generally shifted further inland by about 20 to 50 meters in some areas. The continuing process of erosion has caused the strips of land extending offshore in the vicinity of latitude 30/27/17.0N, longitude 86/10/13.0W, and latitude 30/27/10.0N, longitude 86/09/43.0W, to no longer exist. Also, no evidence of the existence of the two (2) islets located at latitude 30/27/14.0N, longitude 86/10/46.0W, and latitude 30/23/03.0N, longitude 86/10/05.0W, were found during this survey. On the other hand, the process of accretion has created some new strips of land along the coast in the vicinity of latitude 30/28/55.0N, longitude 86/12/18.0W, and latitude 30/28/53.0N, longitude 86/12/43.0W.

An islet at latitude 30/22/55.0N, longitude 86/09/45.0W, on the prior survey is presently shown as a part of a point of land extending seaward in the area.

The portion of land at the mouth of Alaqua Creek at latitude 30/29/33.0N, longitude 86/11/50.0W, has changed since the last survey. This area is now depicted with two islets separated by shallow passages between them.

Survey H-10453 is adequate to supersede the prior survey for the area of common coverage.

7. COMPARISON WITH CHART

Chart 11385, 20th edition, dated Nov. 23, 1991; scale 1:40,000

Chart 11388, 15th edition, dated Jan. 4, 1992; scale 1:80,000

a. Hydrography

The charted hydrography on the 20th edition of chart 11385 and the 15th edition of chart 11388 originates mostly with prior survey H-6449 and the rest from miscellaneous sources which requires no further discussion.

The eight (8) visible piles charted in the vicinity of latitude 30/27/21N, longitude 86/09/36W, were investigated on junction survey H-10452. Refer to survey H-10452 for search method and charting recommendation.

The presently charted old bascule bridge along SR331 was verified during this survey. It was found to have been replaced by a fixed bridge with a field measured vertical clearance of 20.6 meters (67.5 feet). No confirmation concerning this vertical clearance was made by the hydrographer with the USCG during this survey.

The active spoil area charted about 250 meters along the channel leading to La Grange Bayou was not investigated during this survey. It is recommended that it be retained as charted.

With the exception of the spoil area mentioned above, survey H-10453 is adequate to supersede charted hydrography within the common area.

b. AWOIS

There are five (5) AWOIS items investigated during this survey. Two of these items originate with prior survey H-6449 and the rest with miscellaneous sources. Discussion and disposition of each of these items are included in the hydrographer's report.

c. Controlling Depths

The channel leading to La Grange Bayou and the Intracoastal Waterway (ICW) are federally maintained channels located within the survey area. With the exception of the 3.3 and 3.4 meters (11 feet) soundings located along the edge of the waterway at latitude 30/24/11.67N, longitude 86/10/38.19W and latitude 30/24/20.71N, longitude 86/10/49.72W respectively, the depths found along the channels are consistent with or deeper than their charted controlling and project depths.

d. Aids to Navigation

On this survey, some of the charted navigational aids around the area were found to have been moved to new locations.

There are twenty eight (28) aids to navigation located during this survey. These aids were found to be in good condition and adequately serve their intended purpose.

Light "23" was located at latitude 30/23/49.44N, longitude 86/09/43.49W. during H-10452 survey. This aid falls within the junction area of this survey and therefore was carried forward on the smooth sheet.

The privately maintained mooring buoy charted at latitude 30/26/37.0N, longitude 86/13/06.0W, was verified on survey H-10448. Based on the information provided by the USCG, the mooring buoy was removed on October 1992 and therefore it should be deleted from the chart. This buoy does not appear on the 1993 edition of the USCG Light List.

See section P of the hydrographer's report for additional information concerning the above mentioned aids to navigation.

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

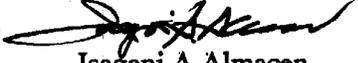
Twelve (12) uncharted features identified as dangers to navigation located within the survey area were reported to USCG on May 25, 1993. A copy of the report is attached. No additional dangers were found during office processing.

8. COMPLIANCE WITH INSTRUCTIONS

Survey H-10453 adequately complies with the Project Instructions.

9. ADDITIONAL FIELD WORK

This is a good hydrographic survey and no additional field work is required.


Isagani A. Almacén
Cartographer

APPROVAL SHEET
H-10453

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. Omstead

Dennis J. Hill Date: 4/1/94
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

Commander Douglas G. Hennick, NOAA Date: 4/12/94
Chief, Pacific Hydrographic Section

Final Approval

Approved:

J. Austin Yeager

J. Austin Yeager Date: 7/18/94
Rear Admiral, NOAA
Director, Coast and Geodetic Survey

