H10449

NOAA FORM 76-35A

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

DESCRIPTIVE REPORT

Type of Survey Basic Hydrographic

Field No. AHP-10-12-92

Registry No. H-10449

LOCALITY

State Florida

General Locality Pensacola Bay

Sublocality Butcherpen Point to East Pensacola Heights

19 92-93

CHIEF OF PARTY
LCDR James Waddell

LIBRARY & ARCHIVES

DATE December 6, 1994

NOAA FORM 77-28 (11-72)

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

HYDROGRAPHIC TITLE SHEET

REGISTER NO.: H-10449

FIELD NO.: AHP-10-12-92

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

State: Florida

General locality: Pensacola Bay

Locality: Butcherpen Point to East Pensacola Heights

Scale: 1:10,000 Date of survey: Nov. 30, 1992 to May 19, 1993

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

Vessel: Atlantic Hydrographic Party, Launch 1292

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

Surveyed by: T. Rybarski

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

Graphic record scaled by: TMR, CBM

Graphic record checked by: TMR

Verification by: C.R. Davies Automated plot by: PHS Xynetics Plotter

Evaluation by: C.R. Davies

Soundings in ~~fathoms~~ meters and decimeters feet at ~~MLW~~ MLLW

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

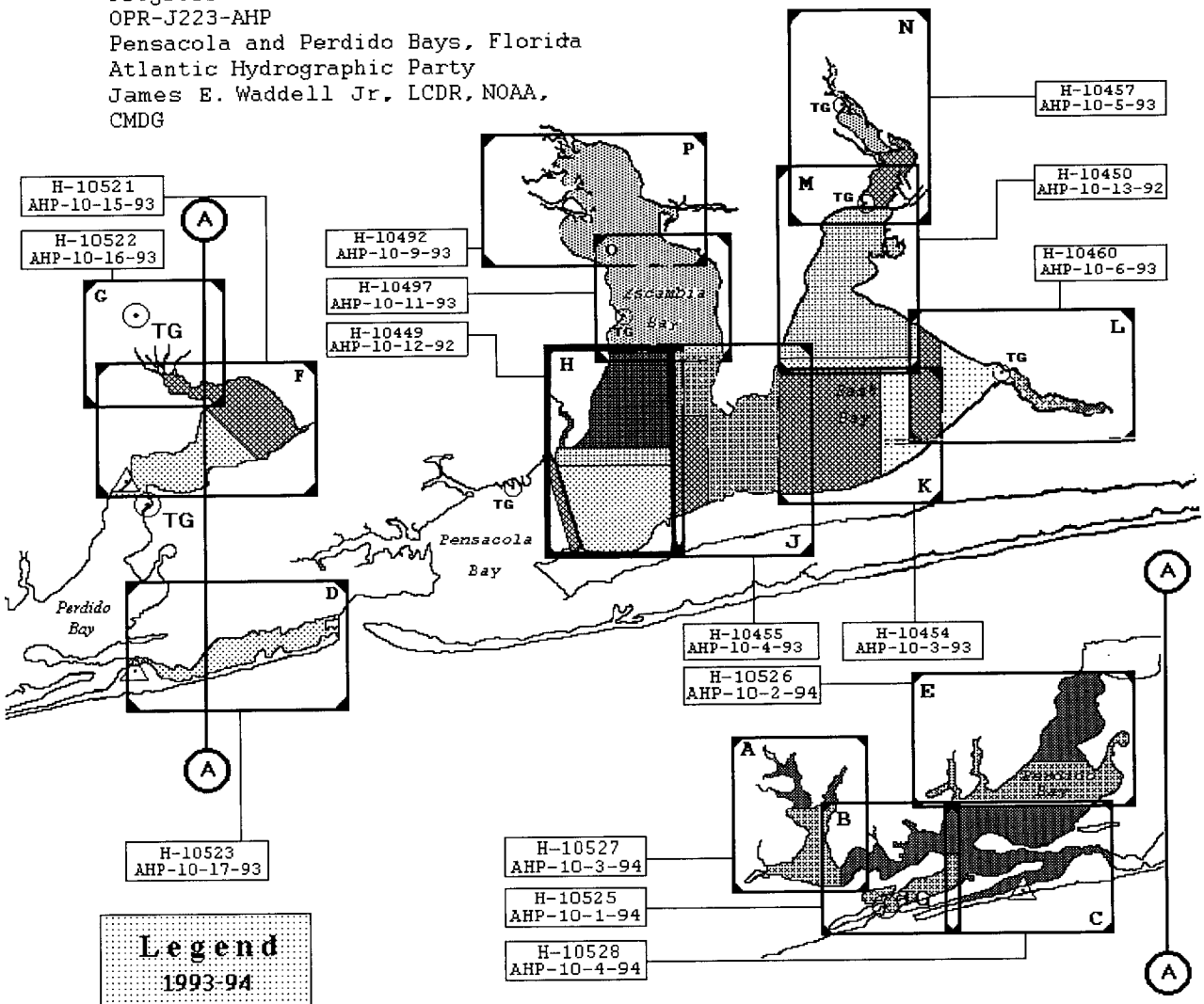
All depths listed in this report are referenced to mean lower low water unless otherwise noted.

AWOIS / SURI 2/28/95 MCR

Draft

U.S. GOVERNMENT PRINTING OFFICE: 1986 - 652-007/41215

Progress Sketch
OPR-J223-AHP
Pensacola and Perdido Bays, Florida
Atlantic Hydrographic Party
James E. Waddell Jr, LCDR, NOAA,
CMDG



Legend
1993-94

MONTH	SQUARE NM SOUNDINGS	LINEAL NM SOUNDINGS	LINEAL NM ITEM DRAGS	LINEAL NM T/F&MISC	Bottom Smpls	Control station	Tide station	SYMBOLS
NOV	—	—	—	—	—	2s/3r	3 12 BM	—
DEC	6.3	117.2	—	119.1	43	—	—	
JAN	7.7	140	1.4	313	83	—	—	
FEB	16.7	306	—	471	116	—	—	
MAR	23.2	412	2.1	387	—	—	4	
APR								
MAY								
JUN								
JUL								
AUG								
SEP								
OCT								

DESCRIPTIVE REPORT TO ACCOMPANY
HYDROGRAPHIC SURVEY H-10449
FIELD NO. AHP2-10-12-92
SCALE: 1:10,000
1992-93
ATLANTIC HYDROGRAPHIC PARTY TWO
CHIEF OF PARTY: LCDR James E. Waddell Jr., NOAA

A. PROJECT ✓

This survey was conducted according to Hydrographic Project Instructions OPR-J223-AHP, Pensacola and Perdido Bays, Florida and Alabama, dated September 25, 1992, and amended by Change No. 1, dated January 4, 1993.

The purpose of this project is to provide contemporary hydrography for updating nautical charts in Pensacola and Perdido Bays. The area was last surveyed in 1935 by the U.S. Coast and Geodetic Survey using lead line methods. Requests for hydrographic surveys in the general area of Pensacola, Florida, have been received from the U.S. Navy, the U.S. Coast Guard, and recreational boaters.

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

B. AREA SURVEYED ✓ See Evaluation Report, section 1

The area surveyed for H-10449 is Pensacola Bay, Butcherpen Point to Magnolia Bluff* including Bayou Texar. The approximate survey limits are as follows:

North - 30°28'~~12~~ 06"N
South - 30°22'~~00~~ 03"N
East - 087°08'~~06~~ 03"W
West - 087°12'~~45~~ 20"W

* Magnolia Bluff is not a recognized Geo-Name. Title has been revised to include East Pensacola Heights.

This survey was conducted from November 30, 1992 (DN 335) to May 19, 1993 (DN 139).

C. SURVEY VESSELS ✓

NOAA launch 1292 (EDP No. 1292), a 21-foot MonArk, was used to collect all data on this survey. Engine failure occurred after survey operations had ceased on DN 068. A new engine of the same make and horse power was installed on the launch. Settlement and squat determination and a speed test were rerun and are discussed in section G. of this report. Survey operations resumed on DN 095.

A special "A" frame was fabricated and installed on the bow of the launch for use with side scan sonar. The "A" frame is made of aluminum pipe, weighs less than 35 pounds, and is easily removable. This special configuration will not affect any sounding correctors when installed.

D. AUTOMATED DATA ACQUISITION AND PROCESSING ✓

Version 4.02 of the PC-DAS suite of programs was used for on-line data acquisition on the survey vessel. An intermittent, but lingering data logging error with the PC-DAS system occurred throughout most of the survey, starting with DN 335. This error prevented the HP formatted raw data disk from converting in the HP system. The HDAPS office was notified on DN 336 and instructions on how to eliminate the bad data were given to us. In order to prevent a total loss of all data in a DOS *.DAT file, the raw data file had to be copied, read and viewed with WordPerfect on the office PC. As instructed, any unusual looking data* was deleted from the file. The error never occurred on a selected sounding or a fix record. In excess of 100 lineal nautical miles of data was lost using this method. The Ashtech GPS, Comflex Data Format, was faxed to AHP on DN 026, from the HDAPS office. The error was finally identified as an ASCII 13 character (carriage return) in the number 22 space (DGPS Position Delta-t). This carriage return split a 130 character data string into two shorter, incomplete lines. The HP-DPS will not convert any data shorter than a 130 character data string, thus the errors encountered with the HP-DPS. The hydrographer believes that the Navitronics-Navisoft, PC-DAS software was responsible for these errors. These errors have not occurred in subsequent surveys with a newer version of the Navisoft software installed. * Data was reviewed during office processing and found to contain no significant problems.

The Hydrographic Data Acquisition and Processing System (HDAPS) was used to process all hydrographic data for this survey. The following IBM-PC compatible computer programs were used:

FREELANCE GRAPHICS for WINDOWS	Release 1.0 (1991)
LOTUS 1-2-3 for WINDOWS	Release 1.0 (1991)
NADCON	Ver. 1.01
OSWEGO IBM PC to HP FILE COPY	Ver. 3.6 (1986)
VELOCITY	Ver. 1.11 (3/9/90)
VELOCITY	Ver. 2.00 (12/18/92)
WORDPERFECT for DOS	Ver. 6.0

E. SONAR EQUIPMENT ✓

An EG&G model 260-TH sidescan sonar, S/N 016508, and EG&G model 272-T towfish, S/N 016698, was used to address several AWOIS items. This unit uses a 100Khz frequency transducer, 50 degree beamwidth and a 20 degree down-angle. The towfish was deployed off the bow of launch 1292 using a specially fabricated "A" frame, which allows for easy launch and retrieval, greater launch maneuverability and also provides a cleaner graphic record due to the reduction of outboard engine interference. It also provides a reliable towfish position and

bottom height check, since the towfish is often below the echo sounder transducer and can be seen and measured on the echo sounder trace.

The PC-DAS sidescan interface was not connected to the sidescan unit due to a shortage of comflex option 16 circuit boards. The unit performed well with no mechanical problems. The relatively shallow depths (4.5 to 9.0 meters) prevented us from using a range scale greater than 50 meters. Eighty-meter line spacing was standard for the 200% coverage required for AWOIS disproval. Event marks were annotated manually using the sidescan units own event mark button simultaneously with the PC-DAS system when a fix is indicated on the LCD display. When event marks were not marked on the fix, but on a selected sounding, the sidescan graphic record was marked with the fix number and corresponding selected sounding (e.g. Pos. 3201+2). Some interference patterns were noted on both the graphic records for the sidescan and the echo sounder. The interference patterns were minor and did not mask potential bottom targets. Surface reflection caused by the sea state was also evident and may have masked potential targets in certain instances. When heavy clutter was evident sonar operations were suspended.

All sidescan data were scanned for significant contacts. Sidescan contact tables were not maintained because so few significant contacts were identified during routine search operations. Each significant contact that was identified was further investigated with a sonar development at a reduced scale and a subsequent dive investigation.

F. SOUNDING EQUIPMENT ✓

An Innerspace model 448 depth sounder, S/N 188 was used to collect all echo soundings on this survey.

A standard lead line calibrated in meters, S/N 1292, was used during this survey for comparison readings with the echo sounder. Comparisons were generally taken in depths of 4 meters or less. A 3-meter wooden sounding pole with 0.2 and 0.5 meter graduations was also used during shoreline verification.

No problems were encountered with any of the sounding equipment. Depths in the survey area range from 0.4 to 10.0 meters.

G. CORRECTIONS TO ECHO SOUNDINGS ✓

Corrections for the speed of sound through the water column were computed from data acquired with an Odom Hydrographic Systems Inc., Digibar Model DB1100 speed of sound probe, S/N 154. This instrument was calibrated by the manufacturer on February 2, 1992. A copy of the calibration data is in the "Survey Separates." ✗

Filed with the hydrographic data

The following velocity casts were taken on this survey: ✓

Table	DN	DATE	Latitude	Longitude
01	345	12/10/92	30°23'36"N	087°10'48"W
02	352	12/17/92	30°23'36"N	087°10'48"W
03	364	12/29/92	30°23'36"N	087°10'48"W
04	021	1/21/93	30°25'33"N	087°11'19"W
05	035	2/04/93	30°24'00"N	087°10'00"W
06	040	2/09/93	30°24'00"N	087°11'00"W
07	053	2/22/93	30°24'00"N	087°11'00"W
08	063	3/04/93	30°23'00"N	087°11'00"W
09	095	4/05/93	30°24'00"N	087°10'00"W

Program VELOCITY was used for computing the speed of sound correctors. The corrector for all tables is zero for all depths on this survey. No velocity corrector application is necessary for final plotting of the smooth sheet at the Pacific Hydrographic Section. Copies of the tables and support documentation are in the "Survey Separates."✶
A corrector of zero was applied to all soundings.

Lead line comparisons were taken to determine instrument error. No instrument error was observed. The lead line comparison log is in the "Survey Separates."✶ The lead line was calibrated on November 28, 1992 with a steel tape. No corrections were necessary. A copy of the calibration form is in the "Survey Separates."✶

A static draft of 0.3 meter was applied to the final field sheet soundings by the HDAPS REAPPLY program. The draft was measured by subtracting the difference from a punch mark on the side of Launch 1292, 0.6 meters above the transducer, to the water surface.

Settlement and squat measurements for vessel 1292 were taken on October 22, 1992 and March 31, 1993 using the level method. Settlement and squat correctors were applied to the final field sheet soundings by the HDAPS REAPPLY program. Data from the settlement and squat tests are in the "Survey Separates."✶

The final field sheet was plotted using predicted tides determined for Pensacola, Florida using zoned time and height correctors designated in section 5.9 of the project instructions. Wind speed and direction during this survey had a far greater effect on the true water levels than did normal tidal action. This resulted in higher water levels during periods of southerly winds, and lower water levels during periods of northerly winds.

Approved tide levels were requested from the Product and Services Branch, N/OES231, in a letter dated July 1, 1993. A copy of the memo is appended.✶ Tide Note, dated August 3, 1993, is attached.

✶ Filed with the hydrographic data

H. CONTROL STATIONS ✓ See Evaluation Report, Section 2

The horizontal control datum for this project is North American Datum 1983. One station, TRIS 1992, was used to control this survey. A second station, PITT 1992, was established for use as a calibration point. A copy of the Control Station List is appended to this report.

The Atlantic Hydrographic Party used the Global Positioning System (GPS) to establish horizontal control for this project. The horizontal control report titled "GPS Traverse, Pensacola and Escambia Bays, Florida" was written and submitted by AHP in October 1992, for OPR-J223 to N/CG23322.

I. HYDROGRAPHIC POSITION CONTROL ✓

Differential GPS was the only method of positioning for all hydrographic data on this survey. Accuracy requirements were met for this 1:10,000 scale survey per section 4.4 of the Hydrographic Manual and section 3.4 of the Field Procedures Manual.

Program MONITOR was used at reference station TRIS for a 24 hour period on DN 318 to ensure no multi-path or other site specific problems occurred. The GPS availability at this site was determined to be 99.9% from this test. A copy of the "outlier.sum" file from the test, showing the statistics, as well as the "Plot of Radial Error in Position", is in the "Survey Separates."*

An Ashtech model XII receiver, serial number 700157E1076 was used as the reference station and a Maxon SM-3010-H mobile VHF radio transceiver were used at the reference station to compute and transmit differential correctors to the remote station. The remote station was comprised of an Ashtech GPS sensor, serial number 700417B1207, and a Maxon SM-3010-H mobile VHF transceiver to receive correctors.

Performance checks were accomplished by comparing the DGPS position of the vessel to the calibration point PITT 1992, per section 3.4.4 of the Field Procedures Manual Performance. Performance checks were obtained daily. Abstracts of the performance checks are in the "Survey Separates."*

Any data acquired during periods of lost lock or high HDOP values were reviewed, then edited or rejected as warranted. Vessel course during these periods was held constant by magnetic compass. Data was analyzed during office processing and found to contain no significant problems. See Evaluation Report, section 2 for additional information.
A position filtering problem occurred intermittently with the PC-DAS, Navitronics-Navisoft software. While on-line and apparently receiving clean data, i.e. no lost lock or dead reckoning messages, the displayed position on the PGU, i.e. DAL-DOL or Easting-Northing, would begin to drift, usually less than 100 meters, in a set direction which was independent of any course that the launch was steering. After anywhere from 10 seconds to 60 seconds in this drift mode, the

* Filed with the hydrographic data.

position would suddenly jump back to the correct position of the launch. If the coxswain noticed the drift and maintained a constant compass heading until the true position returned, the launch was close enough to the steered line to continue without interruption. (See Figure 1 appended.) If the coxswain did not notice the drift and followed the indicated (errant) position, the PC-DAS would log the launch as steering on course until the position suddenly jumped back to the correct position. (See Figure 2 appended.)* In this case, the unedited data printout and trackline plot indicates a flyer only at the point where the position jumps back to the correct position and shows no indication of a problem when the drift started. This anomaly was first noticed shortly after the DGPS was first introduced to AHP. It did not affect any data associated with this survey because drift was detected while on line or suspect data were rejected during data processing. Data was analyzed during office processing and found to contain no significant problems. Data appears consistent with surrounding information. concur

Another anomaly with the positioning system was detected. Position jumps of 5-35 meters of the DGPS computed positions have been detected when the number of satellites being used changes. These position jumps do not occur every time the number of satellites change, but most of the time a position jump is noticed, the number of satellites has changed. Reference comments in paragraph above.

A list of concerns and suggested improvements for the PC-DAS software was submitted by AHP to N/CG24x4 in March, 1993 for inclusion with other software changes to be made by Navitronics. Per a telephone conversation with Lt. Dwayne Timmons on July 1, 1993, the anomalies described in this section were corrected by Navitronics and a revised software version was issued to the Pacific Hydrographic Party for testing. This software will be distributed to AHP upon successful completion of testing.

J. SHORELINE ✓ See Evaluation Report, Section 2

Shoreline support data were supplied by N/CG241 in the form of cartographic revision surveys (CRS) of registered shoreline maps from job CM-7719 (NAD 27). Shoreline shown on the final field sheet was transferred by hand from BP-147472 and BP-147473. This CRS is compiled on NAD 1927 at a scale of 1:10,000.

All shoreline details have been verified except as noted later, and are shown on the final field sheet. Shoreline verification was accomplished by comparison of the main scheme hydrography which junctions at shore, detached positions, or by visual inspections. Field notes are located on the field sheet and echograms.

Shoreline verification was not completed in Bayou Texar northwest of 30°27'10"N, 087°12'10"W, due to loss of control. This narrow area is dense with trees and homes, obstructing both the satellites and the differential corrector transmission. Shoreline and attached Cultural Features were transferred from BP 147473 to the Smooth Sheet in black ink.

Numerous new piers were located during the course of this survey and are shown in red on the final field sheet and are listed in Section 2 of the Ems Report.

* Filed with the hydrographic data.

The following features were identified on this survey which did not appear on BP-147472 or BP-147473:

Position	Latitude	Longitude	Description
2357	30°25'18.49"N	087°11'33.48"W	Boho
2359	30°25'17.55"N	087°11'29.59"W	Ruins
2369	30°25'38.11"N	087°11'26.47"W	Pier/Boho (Red) ✓
2370	30°25'54.89"N	087°11'25.58"W	Boho (Red)
2374	30°25'53.91"N	087°11'22.71"W	Sewer Outfall
2375	30°25'54.89"N	087°11'20.21"W	~~Drain Pipe~~ Sewer Outfall
2821	30°22'49.81"N	087°08'04.59"W	SW end, 8 Groins
2822	30°22'51.66"N	087°08'02.19"W	NE end, 8 Groins
2825	30°22'48.30"N	087°08'06.84"W	NE end, 10 Groins
2827	30°22'46.50"N	087°08'09.55"W	Corner of Groins
2828	30°22'44.60"N	087°08'10.96"W	SW end of Groins
2826	30°22'49.03"N	087°08'06.46"W	~~Ruins~~ Piles
2833	30°22'04.48"N	087°09'51.24"W	Pier (Red)
2839	30°22'09.26"N	087°10'14.22"W	Pier Ruins
3003	30°22'23.56"N	087°10'40.69"W	Pier Ruins
3015	30°25'22.93"N	087°10'44.59"W	Pier Ruins
3016	30°25'28.96"N	087°10'37.84"W	Pier Ruins
3019	30°25'38.91"N	087°10'31.40"W	Pier Ruins
3309	30°25'10.43"N	087°11'32.63"W	Groin Ruins
3310	30°25'40.74"N	087°11'13.54"W	~~Pile Stubs~~ Subm obstr (pier ruins)
3034	30°27'54.60"N	087°09'42.30"W	Seawall & Rip-Rap
3036	30°28'01.66"N	087°09'39.06"W	Finger Pier
3370	30°26'26.50"N	087°11'23.05"W	Pier (Red) ✓
3375	30°25'55.74"N	087°11'18.58"W	Boat Ramp
3376	30°25'55.42"N	087°11'18.58"W	Pier

Recommendation: The hydrographer recommends that the new features listed above be charted. Shoreline detail from this survey should be used to supersede prior shoreline information. Concur

The following features found on BP-147472 and BP-147473 were revised.

Position	Latitude	Longitude	Description
2368	30°25'34.94"N	087°11'11.14"W	Boat Ramp
2373	30°25'51.66"N	087°11'26.05"W	Pier Disproval (No pier on BP147473) ✓
3017	30°25'19.59"N	087°10'48.51"W	Pier Disproval (No pier on BP 147473) ✓
3368	30°26'33.49"N	087°11'20.82"W	Pier Disproval
3369	30°26'31.20"N	087°11'22.08"W	Pier Ruins/Pipes
3371	30°26'25.51"N	087°11'20.82"W	Ruins Disproval

Recommendation: The hydrographer recommends that the revised positions or descriptions of the features listed above be charted. Disprovals should be removed from the chart. Shoreline detail from this survey should be used to supersede prior shoreline information. Concur

Verified shoreline features are shown in black ink on the final field sheet. Reference number descriptions, field notes, and explanations of new shoreline features are located on the graphic record and the field sheet. Photographs of some features are in the accordian file. A complete list of all detached positions generated through the HDAPS Detached Position Editor is included in the accordion file.*

K. CROSSLINES ✓

A total of 16.7 linear nautical miles of crosslines were acquired on H-10449 which equals 18.8% 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 to the north with H-10497 and to the east with H-10455, both 1:10,000 scale surveys from OPR-J223-AHP. This survey junctions to the south with H-10005, a 1:10,000 scale survey from 1983.

Soundings between this survey and H-10455 agree within 0.4 meter. Soundings between this survey and H-10497 agree within 0.3 meter. Soundings from this survey were generally 0.3-0.6 meters deeper when compared to survey H-10005 soundings. No significant soundings required verification or disproval. Surveys H-10455 and H-10497 reflect general depth differences of 0.2 meters after application of approved tides. Sounding differences with H-10005 generally remain as stated.

M. COMPARISON WITH PRIOR SURVEYS See Evaluation Report, section 6

Prior survey comparison between this survey and H-5822 is discussed in section O. of this report since all charted soundings originate from the prior survey.

No AWOIS items originated from the prior surveys. Concur

Three charted piles in Bayou Texar originating from H-5822 were not investigated due to a shortage of divers. The hydrographer considered these as lower priority items due to their age and proximity to shore. Visual searches were conducted for each of the items with negative results. Water visibility was good and depths were less than 1.5 meters.

* Filed with the hydrographic data.

Recommendation: The hydrographer recommends deleting the piles charted at the following positions: Concur

Lat 30°27'04"N Long 087°11'50"W
Lat 30°27'01"N Long 087°11'54"W
Lat 30°27'01"N Long 087°11'45"W

N. ITEM INVESTIGATION REPORTS

N1. AWOIS NO: 7862

Item Description: The 30-foot fishing vessel, Alice G, previously reported as the F/V Albatross, has been reported sunk, PA. Part of the bow is still visible above the water. The wreck is reported to be marked by a steady white light.

Source: LNM40/73--8th CGD

AWOIS Position: Lat-30°26'18.71"N Lon- 087°08'23.88"W

Required Investigation: Full; 2000-meter search radius, revised by N/CG241 to 750 meters, 12/9/92.

Affects Chart: 11378, 11383

INVESTIGATION

Date(s)/DN(s): 5/6/93 (DN 126), 5/7/93 (DN 127), 7/18/93 (DN 138)

Launch Number: 1292

Investigation Used: Side scan sonar

Position Determined By: DGPS

Investigation Summary: Side scan sonar was used to search for the reported wreck. 200% coverage was obtained within a 350-meter radius of the center position. 100% coverage was obtained throughout the search area with the exception of the extreme eastern end where it fell outside the sheet limits. The full 200% coverage was not accomplished due to time constraints. No significant contacts were identified.

CHARTING RECOMMENDATION

The hydrographer recommends retaining the charted submerged wreck as ED (existence doubtful). Concur

N2. AWOIS NO: 7863

Item Description: The 60-foot fishing vessel, Marie Jose, is reportedly sunk, PA, in approximately 20 feet of water. Telecon with Coast Guard, 12/20/90; reported the vessel sank July 1, 1986 in hurricane Helena. Probably located with loran, by Coast Guard Group, Mobile, Alabama.

Source: LNM40/73--8th Cg District

AWOIS Position: **Lat**-30°25'30.71"N **Lon**-087°09'41.88"W

Required Investigation: Full, 1000-meter radius. N/CG241 revised search to 600-meter radius.

Charts Affected: 11378,11383

INVESTIGATION

Date(s)/DN(s): Side scan sonar: 5/7/93 (DN 127) Dive: 5/20/93 (DN 140)

Position Numbers: Side scan: PN 3261-3262, 50-meter scale, PN 3263-3264, 25-meter scale.
Diver: PN 3531

Launch Number: 1292

Investigation used: Side scan sonar; Diver **Water Visibility:** 1m

Position Determined By: DGPS

Investigation Summary: On DN 127, side scan sonar was used to search for the reported wreckage. One significant contact was found. An extra pass at the 25-meter range scale was used to better identify the contact. On DN 140, divers found wood wreckage entangled with shrimp net and cable laying on a soft mud bottom. No particular orientation of the wreckage was evident. A least depth of 4.0 meters was taken on it highest point by leadline. A detached position was taken by drifting the survey launch over the marker buoy.

CHARTING RECOMMENDATION

The hydrographer recommends revising the charted submerged wreck PA, to the recommended position below. The PA notation should be deleted.

Recommended Position: **Lat**-30°25'46.1~~8~~7"N **Lon**-087°09'31.6~~1~~2"W

Recommended Least Depth: 3.~~6~~5 meters @MLLW ~~(Predicted tides)~~

Do not concur
Inadequate investigation
retain WK PA as charted.

chart new wreck at
lat. 30/25/46.17N, 87/09/31.62W
with a least depth of 3.5 meters

AWOIS 9380

N3. AWOIS 7864

Item Description: Fishing vessel Virginia "A", was reported sunk PA, in approximately 26 feet of water.

Source: LNM40/73--8th CG Dist.

AWOIS Position: Lat -30°24'00.71"N Lon -087°10'47.88"W

Required Investigation: Full, 1000-meter search radius. N/CG241 revised to 500 meters, 12/8/92.

Charts Affected: 11378, 11383

INVESTIGATION

Date(s)/DN(s): 5/7/93 (DN 127), 5/20/93 (DN 140)

Position Numbers: Side scan sonar PN 3360-3361, 50-meter range; Diver search PN 3528 (DN 140).

Launch Number: 1292

Investigation used: Side Scan Sonar; Diver **Water Visibility**: 1m

Position Determined By: DGPS

Investigation Summary: On DN 132, side scan sonar was used to search for the reported wreckage. One significant contact was found. An extra pass at the 25-meter range scale was used to better identify the contact. On DN 140, divers found rotted wood wreckage entangled with shrimp net. The wreckage was flush with the bottom. No least depth was taken. Least depth was taken from raw data, echogram.

Per a phone conversation with Mr. Phil Johnson, USCG 8th District OAN, the engine on this vessel was reportedly removed prior to the sinking.

CHARTING RECOMMENDATION

The hydrographer recommends that the charted wreck PA be deleted from the chart. Concur

Chart submerged wreck at lat 30°23'54.95"N, long. 87°10'50.47"W with least depth of 7m at mllw

Recommended Position:

lat. 30°23'54.95"N long 87°10'50.47"W.

Recommended Least Depth: 7 meters at mllw

N4. AWOIS NO: 8325

Item Description: Submerged remains of old bridge (fishing pier). Piers of old bridge reported removed to a depth of 20 feet (MLW). Pier remains extend into present channel about 20 feet on both sides.

Source: CL1149/60--Florida State Road Department.

AWOIS Position: **Lat**-30°23'41"N **Lon**-087°11'05"W

Required Investigation: Full

Affects Chart: 11378, 11383

INVESTIGATION

Date(s)/DN(s): 5/20/93 DN 140

Position Numbers: 3529 **Launch Number:** 1292

Investigation Used: Dive investigation **Water Visibility:**

Position Determined By: DGPS

Investigation Summary: A 6-foot diameter concrete culvert pipe was found near the ~~southeast~~ west cell of the newly constructed bridge fender with a least depth of ~~7.7~~ 7.6 meters (~~25.3~~ 25.0 feet). Concrete pier remains were also found on both sides of the channel near the northeast and southeast cells with 8.7 meter (28.5 feet) least depths. The least depth was determined by lead line. The culvert pipe was identified by a construction diver to be the concrete counter weight of the old bascule bridge. The diver hired to work the underwater construction of the bridge fender supplied the hydrographer a sketch of the entire bridge construction site. The greater least depths found are the result of the construction company moving the counterweight a few feet to the northwest because it was where sheet pile was to be driven in for the southeast cell. This was done by digging a hole in the bottom with a waterjet and allowing the counterweight to slide in to it. Much of the debris on both sides of the channel was removed during the construction of the bridge fenders. Fender construction lasted the entire time that field data was acquired for this survey.

A good DGPS position could not be taken exactly on the location of the counterweight because the bridge was obstructing the satellites. A detached position was taken near the southwest cell of the bridge fender because of poor control on the east side. The hydrographer does not consider this a significant problem because least depths were deeper than charted and there is no mistaking the proximity to any bridge fender cell.

CHARTING RECOMMENDATION

The hydrographer recommends retaining note "C" on chart 11383, with a revised least depth of 7.3~~9~~ 2 meters (23.~~9~~ 6 feet). Concur

Recommended Position: lat. 30° 23' 38.61"N, long. 87° 11' 07.25"W.

Recommended Least Depth: 7.3 2 meters @ MLLW ~~(Predicted tides)~~

N5. AWOIS NO: 8326

Item Description: Pier ruins.

Source: H-5822/35

AWOIS Position: Lat-30°25'54.71"N Lon-087°10'13.08"W

Required Investigation: Full; 50-meter search around inshore GP, extending from inshore position 50 meters either side of an axis connecting to shoreward-most position

Affects Chart: 11378, 11383

INVESTIGATION

Date(s)/DN(s): 4/5/93 (DN096)

Position Numbers: 3021-3025 **Launch Number:** 1292

Investigation Used: Visual **Water Visibility:** Clear, excellent

Position Determined By: DGPS

Investigation Summary: A visual search was conducted for the pier ruins. A row of submerged piles were found extending from position 3021 to 3025. The piles ranged from ~~being flush with the bottom~~ (offshore end) to being uncovers ~~exposed~~ 0.8 ~~1.0~~ meter near the inshore end, at MLLW. covered 0.8 meters

---

CHARTING RECOMMENDATION

The hydrographer recommends retaining the charted pier ruins. Concur

Recommended Position: Offshore end - 30°25'54.~~70~~ 69"N 087°10'13.2~~5~~ 5"W
Inshore end - 30°25'57.2~~1~~ 9"N 087°10'23.8~~3~~ 5"W

O. COMPARISON WITH THE CHART See Evac Report, section 7

Chart comparison was made with a 1:10,000 scale enlargement of the 45th edition of chart 11383, dated October 5, 1991. There were no significant changes between this edition and the 46th edition, dated January 2, 1993. All soundings on this chart originate from prior survey H-5822.

One danger to navigation was identified on this survey. The charted submerged wreck PA, (PN 3531), was located in charted depths of 20 feet, at 30°25'46.18"N, 087°09'31.61"W, with a least depth of 3.~~6~~5 meters (11.~~8~~3 ft.) at MLLW. A copy of the letter is appended.

A sounding plot in feet was produced to aid in comparison of depth curves and soundings between this survey and the chart. Differences of 1-3 feet were common in depths greater than 12 feet with the present survey being the shallower of the two.

A charted foul area near the fishing pier (old bridge), located at 30°23'45.0"N, 087°11'08.5"W, was developed with 25-meter line spacing from the fishing pier to 200 meters east. Side scan sonar was also used running parallel to the pier (PN 3116-3117). No obstructions were evident within this charted foul limit. There is no mention on the chart, either by a special note or a sounding, regarding this apparent foul area. The navigable areas under the bridge and pier were not investigated for obstructions.

Recommendation: The hydrographer recommends deleting the delimited foul limit at 30°23'45.0"N, 087°11'08.5"W. concur

Bayou Texar currently shows a 0.5-foot sounding just above the Cervantes St. Bridge at 30°25.5'N, 087°11.3'W. Mainscheme hydrography from this survey shows depths from 6.~~4-9.3~~ 6.2-7.2 feet (~~2.0-2.9~~ 1.9-2.2 meters) in this area.

Recommendation: Delete the charted 0.5 foot sounding. concur, chart according to this survey.

Soundings in Bayou Texar agreed well, with differences of no more than 1 foot. The City of Pensacola had a portion of the channel in Bayou Texar dredged from 30°25.3'N, 087°11.5'W, to above the Cervantes St. Bridge at 30°25.6'N, 087°11.3'W, after the bayou was surveyed by AHP. A project blueprint was furnished by the city engineer and was forwarded with the survey data.

The following charted features were not found on this survey:

Position	Latitude	Longitude	Description
2377	30°25'55.05"N	087°11'17.06"W	Pile

A 25-meter diver circle search was conducted at the center scaled position. Nothing found. Remove from chart

---

2378	30°25'53.83"N	087°11'14.16"W	Obstr.

A 25-meter diver circle search was conducted at the center scaled position. Nothing found. Remove from chart

---

3368	30°26'33.49"N	087°11'20.82"W	Pier

A 25-meter visual search was conducted at the center scaled position. Nothing found. Remove from chart

---

3532	30°25'59.18"N	087°11'04.09"W	Piles

A 30-meter diver circle search was conducted at the center scaled position. Nothing found. Remove from chart

---

3533	30°25'58.15"N	087°11'03.56"W	Piles

A 30-meter diver circle search was conducted at the center scaled position. Nothing found. Remove from chart

---

3534	30°25'51.37"N	087°11'24.48"W	Boho

A 30-meter diver circle search was conducted at the center scaled position. Nothing found. Remove from chart.

3535	30°25'29.89"N	087°11'17.57"W	Piles

Remove from chart

A 50-meter diver circle search was conducted at the center scaled position. Nothing found.

Recommendation: The hydrographer recommends that the items searched for and not found, be considered disproved and removed from the chart. Concur

P. ADEQUACY OF SURVEY ✓

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

Q. AIDS TO NAVIGATION ✓

There are 4 non-floating and 1 floating aids to navigation in the survey area.

All four of the non-floating aids are published in the U.S. Coast Guard Light List, Vol. 4, 1993. All fixed aids to navigation adequately serve there intended purpose with the exception of Bayou Texar Jetty Light "6". This light is permanent and privately maintained by the City of Pensacola. It is intended to be used to mark the end of the wooden jetty near the entrance to Bayou Texar. This daymark is not numbered in its proper sequence, proceeding in the conventional direction of buoyage. Light "6" is approximately 230 feet (70 meters) north-northeast of a straight line from light 2 and daybeacon 4, well outside of the dredged channel.

On July 9 and 12, 1993, the hydrographer contacted Mr. Al Garza, Assistant City Engineer for the City of Pensacola, Florida and Chief Petty Officer Bo Lewis, Officer in Charge, Aids to Navigation Team (ANT), Pensacola, Florida respectively, about this discrepancy. Mr. Garza stated that his office has received numerous complaints from mariners who have either grounded or had nearly grounded their vessel because of this discrepancy. Both parties concur that the City of Pensacola had applied for a permit to install an aid to navigation on the newly built jetty, to the U.S.C.G. Eighth District, Office of Aids to Navigation (OAN), in New Orleans, Louisiana. OAN approved the permit and specified to the city the marks that are to be displayed. OAN gave the aid lateral markings which indicates the port or starboard side of a route to be followed.

Chief Lewis called AHP on July 12, 1993, to say that OAN has authorized removing the triangle red daymark number "6", but will keep it's red light. The aid is still considered a lateral mark but the removal of the dayboard and numbering will eliminate the confusion mariners have experienced when navigating the area. The aid will now be referred to as Bayou Texar Jetty Light and will retain its U.S.C.G. Light List Number. On July 12, 1993, ANT Pensacola removed the triangle red dayboard "6" from the jetty, and in addition, has established temporary

buoys 2A and 2B to better delimit the channel. These two buoys were not located by AHP, because the field unit had moved to a northern working area. The final field sheet shows this as red light "6", at the end of the jetty. A standard form 76-40 was not filed for this change due to its occurrence after the field work was completed and having not been visually verified. This light was listed on the attached 76-40 form to be revised. The smooth sheet shows this red light as Texar Bayou Jetty Light.

The following table shows the comparison between survey, light list and charted positions:

NON-FLOATING AIDS

USCG LIGHT LIST Name/Number	Position	Survey Position	Distance/Bearing fm. Charted Pos.
Bayou Texar Light 2 LLN 4475	30°24.8'N 087°11.4'W	30°24'50"N 087°11'22"W	15m NNE
Bayou Texar Daybeacon 4 LLN 4485	None	30°25'06"N 087°11'32"W	100m NNW
Bayou Texar Jetty Light LLN 4480	30°25.1'N 087°11.5'W	30°25'05"N 087°11'29"W	Uncharted
Pensacola Bay Channel Range Rear Light LLN 4335	None	Third Order, Class I 30°25'13.725"N 087°11'00.045"W	<5m

FLOATING AIDS TO NAVIGATION

Pensacola Bay Bridge Approach Buoy 1 LLN 4490	30°23.9'N 087°10.3'W	30°23'58"N 087°10'16"W	25m E

A detached position was taken on Pensacola Bay Channel Range, Rear Light, as a check. The compared position and plotted position of this range marker are from the third-order, class I, position.

Two charted overhead cable crossing areas in Bayou Texar should be revised to submarine cable crossings. One is located just north of the railroad trestle near the entrance to the bayou at 30°25'16.8"N, 087°11'34.8"W. The limits are charted correctly. The other is located on the south side of the Cervantes Street Bridge. The charted dashed line noting the overhead cable should be revised to show the submarine cable crossing from the west side of the bayou at Gasten

Street, PN 2366 (30°25'30.96"N, 087°11'21.81"W), to the east side of the bayou, as charted, at PN 2367 (30°25'31.52"N, 087°11'13.84"W). concur

Two charted cable areas, one in Bayou Texar at 30°26'24"N, 087°11'18"W, the other paralleling the Pensacola Bay Bridge are charted correctly. concur

Detached positions were taken at all visible crossing signs. Mention is made on the echograms as to whether a sign is present or not at the charted crossing areas. See smooth sheet.

Bridge clearances appeared to be correct as charted throughout the survey area. Retain bridge clearances as charted.

R. STATISTICS ✓

Description	Quantity
Total Number of Positions	3384
Total Lineal Nautical Miles of Hydrography	343.8
Total Lineal Nautical Miles of Cross Lines	16.7
Square Nautical Miles of Hydrography	12.0
Days of Production	30
Detached Positions	196
Bottom Samples	14
Tide Stations	1
Velocity Casts	9

S. MISCELLANEOUS ✓

No significant current conditions were observed while conducting this survey.

There were 47 bottom samples acquired on this survey. They were 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."

No predicted tide anomalies were observed during this survey.

T. RECOMMENDATIONS ✓

Specific recommendations are made in sections J., N., O., P. and Q. of this report. No inadequacies, additional work, nor further investigations were identified after the field work was completed. concur

U. REFERRAL TO REPORTS ✓

Title	Transmittal Information
Descriptive Report to Accompany Survey H-10497	Pacific Hydrographic Section, N/CG245 Seattle, WA (1994)
Descriptive Report to Accompany Survey H-10455	Pacific Hydrographic Section, N/CG245 Seattle, WA (1994)
Horizontal Control Report for OPR-J223-AHP	Field Photogrammetry Section Norfolk, VA (N/CG23322)(1992)
User Evaluation Report OPR-J223-AHP	Atlantic Hydrographic Section, N/CG244 Norfolk, VA (1994)
Coast Pilot Report	Atlantic Hydrographic Section, N/CG244 Norfolk, VA (1994)

Submitted by: Thomas M. Rybarski
Surveying Technician, Atlantic Hydrographic Party

OPR-J223-AHP
Final Field Computed Positions
for
Control Stations

STATION	LATITUDE (N)	LONGITUDE (W)	ELIPSOID Ht.
TRIS, 1992	30°19'41.77403"	087°10'22.53336"	24.5447m
PITT, 1992	30°24'27.63358"	087°12'27.54989"	-27.3078m

NOAA FORM 76-40
(8-74)

Replaces C&GS Form 567.

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

NONFLOATING AIDS ~~OR LANDMARKS~~ FOR CHARTS

ORIGINATING ACTIVITY
- [x] HYDROGRAPHIC PARTY
- [ ] GEODETIC PARTY
- [ ] PHOTO FIELD PARTY
- [ ] COMPILATION ACTIVITY
- [ ] FINAL REVIEWER
- [ ] QUALITY CONTROL & REVIEW GRP.
- [ ] COAST PILOT BRANCH

(See reverse for responsible personnel)

- [ ] TO BE CHARTED
- [x] TO BE REVISED
- [ ] TO BE DELETED

REPORTING UNIT (Field Party, Ship or Office)	STATE	LOCALITY	DATE
AHP2	FLORIDA	PENSACOLA BAY	2/18/94

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

OPR PROJECT NO.	JOB NUMBER	SURVEY NUMBER	DATUM
J223-AHP		H-10449	NAD 83

CHARTING NAME	DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses)	POSITION LATITUDE ° ′	LATITUDE ″ D.M. Meters	POSITION LONGITUDE ° ′	LONGITUDE ″ D.P. Meters	METHOD AND DATE OF LOCATION (See instructions on reverse side) OFFICE	FIELD	CHARTS AFFECTED
LIGHT	BAYOU TEXAR LIGHT 2 LLN 4475	30 24	50.39	87 11	22.00		DGPS- HYDROGRAPHIC	11383, 11378
DAY BEACON	BAYOU TEXAR DAYBEACON 4 LLN 4485	30 25	06.23	87 11	31.97		DGPS - HYDROGRAPHIC	11383, 11378
RANGE LIGHT	PENSACOLA BAY CHANNEL RANGE REAR LIGHT LLN 4335	30 25	13.725	87 11	0.045		GPS TRAVERSE	11383, 11378
LIGHT	BAYOU TEXAR JETTY LIGHT LLN 4480 (CHARTED AS "6" PRIV)	30 25	05.30	87 11	28.67		DGPS - HYDROGRAPHIC	11383 11378

RESPONSIBLE PERSONNEL

TYPE OF ACTION	NAME	ORIGINATOR
OBJECTS INSPECTED FROM SEAWARD	THOMAS M. RYBARSKI	☐ PHOTO FIELD PARTY ☑ HYDROGRAPHIC PARTY ☐ GEODETIC PARTY ☐ OTHER *(Specify)*
POSITIONS DETERMINED AND/OR VERIFIED	BRIAN A. LINK	FIELD ACTIVITY REPRESENTATIVE
		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,

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	P - Photogrammetric
L - Located	Vis - Visually
V - Verified	
1 - Triangulation	5 - Field identified
2 - Traverse	6 - Theodolite
3 - Intersection	7 - Planetable
4 - Resection	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.

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

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

NOAA FORM 76-40 (8-74)

SUPERSEDES NOAA FORM 76-40 (2-71) WHICH IS OBSOLETE, AND EXISTING STOCK SHOULD BE DESTROYED UPON RECEIPT OF REVISION.

☆ U.S.GPO:1975-0-665-080/1155

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

March 9, 1994

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

Dear Sir,

While conducting a basic hydrographic survey (Registry No. H-10449) of Pensacola, Florida, Pensacola Bay, Butcherpen Point to Magnolia Bluff, an uncharted wreck was deemed to be a danger to navigation at 30°25'46.18"N, 087°09'31.61"W, with a least depth of 11.8 ft. This chart correction is recommended for inclusion in the Local Notice to Mariners.

Positions are in NAD83 datum and the depth has been reduced to Mean Lower Low Water (MLLW) using predicted tides. The wreck was located using Differential GPS. This information affects chart 11378, 26th Edition/September 5/92, NAD 1983, and chart 11383, 46th Edition/January 2/93, NAD 1983. A section of chart 11383, showing the location of this danger, is attached.

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

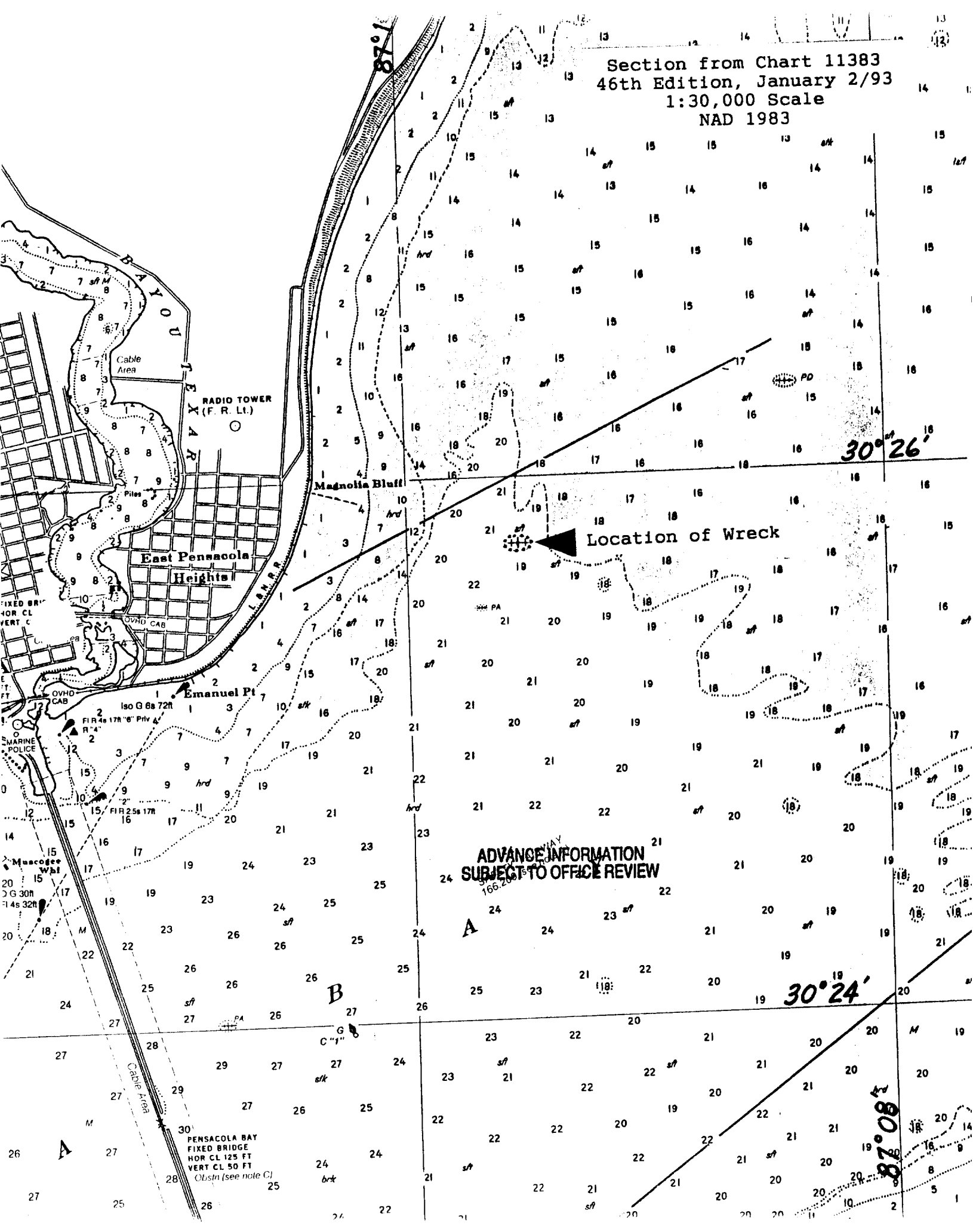
Sincerely,

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

Attachments

cc: N/CG221
N/CG245
DMAHTC

ADVANCE INFORMATION
SUBJECT TO OFFICE REVIEW

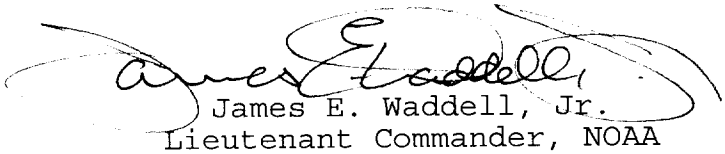

Section from Chart 11383
46th Edition, January 2/93
1:30,000 Scale
NAD 1983
87°11'
30°26'
30°24'
87°08'
Location of Wreck
ADVANCE INFORMATION
SUBJECT TO OFFICE REVIEW
BAYOU TEXAR
Cable Area
RADIO TOWER
(F. R. Lt.)
Piles
Magnolia Bluff
East Pensacola Heights
L. & N. R.R.
OVHD CAB
Emanuel Pt
Iso G 6s 72ft
FIR 4s 17ft "6" Priv
MARINE POLICE
Muscogee Wharf
FIR 2.5s 17ft
G 30ft
Fl 4s 32ft
C "1"
Cable Area
PENSACOLA BAY
FIXED BRIDGE
HOR CL 125 FT
VERT CL 50 FT
Obstn (see note C)
PA
PD
A
B

APPROVAL SHEET

BASIC HYDROGRAPHIC SURVEY
OPR-J223-AHP
AHP-10-12-92
H-10449
1992-93

This basic hydrographic survey was conducted in accordance with the project instructions for OPR-J223-AHP, the Hydrographic Manual, the Hydrographic Survey Guidelines, and the Field Procedures Manual. The survey data and reports were completed under frequent supervision. All reports were reviewed in their entirety and all supporting records checked by Mr. Brian Link, Assistant Chief of Party. The final field sheet and descriptive report were reviewed and approved by LCDR James E. Waddell, Jr., Chief of Party.

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



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

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: August 3, 1993

MARINE CENTER: Pacific

OPR: J223

HYDROGRAPHIC SHEET: H-10449

LOCALITY: Florida, Pensacola Bay, Butcherpen Point to Magnolia Bluff

TIME PERIOD: November 30, 1992 - May 20, 1993

TIDE STATION USED: 872-9816 Lora Point, Escambia Bay, Fl.
Lat. 30° 30.9'N Lon. 87° 09.7'W
PLANE OF REFERENCE (MEAN LOWER LOW WATER): = 3.01 feet
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: = 1.4 feet

TIDE STATION USED: 872-9840 Pensacola, Pensacola Bay, Fl.
Lat. 30° 24.2'N Lon. 87° 12.8'W
PLANE OF REFERENCE (MEAN LOWER LOW WATER): = 8.28 feet
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: = 1.2 feet

REMARKS: RECOMMENDED ZONING

1. South of 30° 27.0'N, use times and heights direct on Pensacola, Fl. (872-9840).

2. North of 30° 27.0'N, use times and heights direct on Lora Point, Fl. (872-9816). When data is not available for Lora Point, Fl., apply a +10 minute time correction, and a X1.06 range ratio to all heights on Pensacola, Fl. (872-9840).

NOTE: Hourly heights are tabulated on Central Standard Time.

CHIEF, DATUMS SECTION

NOAA FORM 76-155
(11-72)

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

GEOGRAPHIC NAMES

SURVEY NUMBER

H-10449

Name on Survey	A ON CHART NO. 11383	B ON PREVIOUS SURVEY NO.	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	K U.S. LIGHT LIST	
BUTCHERPEN COVE	X									1
BUTCHERPEN POINT	X									2
EAST PENSACOLA HEIGHTS	X									3
EMANUEL POINT	X									4
ESCAMBIA BAY	X									5
FLORIDA (title)										6
GULF BREEZE	X									7
PENSACOLA	X									8
PENSACOLA BAY	X									9
TEXAR, BAYOU	X									10
										11
										12
										13
										14
										15
				Approved:						16
										17
				Charles R. Harrington						18
				Chief Geographer - N/CG2x5						19
				JUN 23 1994						20
										21
										22
										23
										24
										25

NOAA FORM 76-155 SUPERSEDES C&GS 197

NOAA FORM 77-27(H)
(9-83)

U.S. DEPARTMENT OF COMMERCE

HYDROGRAPHIC SURVEY STATISTICS

REGISTRY NUMBER
H-10449

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

RECORD DESCRIPTION	AMOUNT	RECORD DESCRIPTION	AMOUNT
SMOOTH SHEET	1	SMOOTH OVERLAYS: POS., ARC, EXCESS	1
DESCRIPTIVE REPORT	1	FIELD SHEETS AND OTHER OVERLAYS	

DESCRIPTION	DEPTH/POS RECORDS	HORIZ. CONT. RECORDS	SONAR-GRAMS	PRINTOUTS	ABSTRACTS/ SOURCE DOCUMENTS	
ACCORDION FILES	1					
ENVELOPES						
VOLUMES						
CAHIERS						
BOXES				1		

SHORELINE DATA

SHORELINE MAPS (List):

PHOTOBATHYMETRIC MAPS (List):

NOTES TO THE HYDROGRAPHER (List):

SPECIAL REPORTS (List):

NAUTICAL CHARTS (List):

OFFICE PROCESSING ACTIVITIES

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

PROCESSING ACTIVITY	AMOUNTS		
	VERIFICATION	*EVALUATION*	*TOTALS*
POSITIONS ON SHEET			3384
POSITIONS REVISED			
SOUNDINGS REVISED			
CONTROL STATIONS REVISED			

	TIME-HOURS		
	VERIFICATION	*EVALUATION*	*TOTALS*
PRE-PROCESSING EXAMINATION			
VERIFICATION OF CONTROL			
VERIFICATION OF POSITIONS	28		28
VERIFICATION OF SOUNDINGS	19		19
VERIFICATION OF JUNCTIONS			
APPLICATION OF PHOTOBATHYMETRY			
SHORELINE APPLICATION/VERIFICATION			
COMPILATION OF SMOOTH SHEET	13		13
COMPARISON WITH PRIOR SURVEYS AND CHARTS		8	8
EVALUATION OF SIDE SCAN SONAR RECORDS			
EVALUATION OF WIRE DRAGS AND SWEEPS			
EVALUATION REPORT		15	15
GEOGRAPHIC NAMES			
OTHER*			
*USE OTHER SIDE OF FORM FOR REMARKS — TOTALS	60	23	83

Pre-processing Examination by M. Larsen	*Beginning Date* 6/10/94	*Ending Date* 6/24/94
Verification of Field Data by R. Davies	*Time (Hours)* 60	*Ending Date* 9/9/94
Verification Check by	*Time (Hours)*	*Ending Date*
Evaluation and Analysis by R. Davies	*Time (Hours)* 23	*Ending Date* 9/20/94
Inspection by B. Olmstead	*Time (Hours)* 28	*Ending Date* 11/4/94

EVALUATION REPORT
H-10449

1. INTRODUCTION

Survey H-10449 is a basic hydrographic survey accomplished by the Atlantic Hydrographic Field Party 2 under the following Project Instructions.

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

This survey was conducted in Pensacola Bay between Butcherpen Cove and Escambia Bay. The surveyed area also includes Bayou Texar. The surveyed area is between latitude 30/22/05N and latitude 30/28/06N, longitude 87/08/03W and longitude 87/12/20W. The shoreline in the area is characterized by sand and marsh. Numerous private piers exist throughout the area. In addition, three fixed bridges exist within the survey area. The largest, Pensacola Bay Bridge, spans Pensacola Bay from the vicinity of Emanuel Point to Butcherpen Cove. The bottom consists of mud and sand. Depths east of the Pensacola Bay Bridge and from Escambia Bay to Butcherpen Cove generally range from 3 to 7 meters. The center portion of Bayou Texar was found to contain depths that generally range from 1 to 2.3 meters.

Depths curves depicted on the smooth sheet were selected from those authorized through HSG 69. The selected curves are the 1, 2, and 5 meter. A note was added to the smooth sheet to identify these values. In addition, supplemental depth curves have been shown in brown where warranted.

Predicted tides for Pensacola, Florida were used for the reduction of soundings during field processing. Approved hourly heights zoned from Lora Point, Escambia Bay and Pensacola, Pensacola Bay, Florida, gages 872-9816 and 872-9840 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 velocity 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 Guidelines 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 complete information.

2. CONTROL AND SHORELINE

Sections H and I of the hydrographer's report and the 1992 Horizontal Control Report for OPR-J223-AHP, contain adequate discussions of horizontal control and hydrographic positioning.

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 36 positions exceeded the limit in terms of HDOP. These positions are isolated and occur randomly throughout the survey area. A review of the data, however, indicates that none of these fixes are used to position dangers to navigation. The features or soundings located by these fixes are consistent with the surrounding information. These fixes are considered acceptable.

The position of the horizontal control station used during hydrography is a 1992 field value based on NAD 83.

The smooth sheet and accompanying overlays are annotated with NAD 27 adjustment ticks based on values determined with NGS program NADCON. Geographic positions based on NAD 27 may be plotted on the smooth sheet utilizing the NAD 83 projection by applying the following corrections.

Latitude: 0.713 seconds (21.955 meters)
Longitude: -0.111 seconds (-2.962 meters)

The year of establishment of the control station shown on the smooth sheet originates with the horizontal control records for this survey.

Cartographic Revision Surveys (CRS) BP-147472, BP-147473, BP-147635 and BP-003392 updated by NANCI support data, were compiled on NAD 27 and apply to this survey.

The following shoreline changes are depicted on the smooth sheet with a red line with supporting positional information. These revisions are adequate to supersede the common photogrammetrically delineated shoreline.

Feature	Latitude(N)	Longitude(W)
pier	30/26/58.95	87/11/41.91
pier	30/26/26.50	87/11/23.06
pier	30/26/29.05	87/11/14.57
pier	30/26/03.84	87/10/57.84
pier	30/22/04.47	87/09/51.25
pier	30/26/28.02	87/11/14.48
pier	30/26/27.02	87/11/14.59
pier	30/26/25.73	87/11/14.48

pier	30/25/38.10	87/11/26.48
pier	30/25/35.13	87/11/25.59

3. HYDROGRAPHY

Hydrography is adequate to;

a. delineate the bottom configuration, determine least depths, and draw selected depth curves;

b. reveal there are no significant discrepancies or anomalies requiring further investigation;

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

Standard depth curves were adequately drawn and developed with the exception of the zero curve. Project Instructions limits inshore hydrography to the 0.7 meter depth curve based on the shallowness of the area and a small tide range.

4. CONDITION OF SURVEY

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

A comparison of charted soundings was made by the hydrographer in section O of the hydrographer's report. This comparison should have been in Section M, Comparison of Prior Survey, as the majority of the soundings originate from a prior survey. Reference the FPM, Figure 6.1, Section M, Comparison with Prior Surveys.

A comparison with the prior survey should discuss general trends such as shoaling or deepening that have occurred in the survey area. Give conclusions or opinions as to the reasons for significant differences. Reference the FPM Figure 6.1, Section M Comparison with Prior Surveys.

5. JUNCTIONS

Survey H-10449 junctions with the following surveys.

Survey	Year	Scale	Area
H-10005	1983	1:10,000	Southwest
H-10497	1993	1:10,000	North
H-10455	1993	1:10,000	East

The junction with surveys H-10497 and H-10455 are complete. The junction with survey H-10005 was not formally completed since this survey was previously processed and forwarded for charting. The junction comparison was made using a copy. There is good agreement between soundings, however, the depth curves shown on survey H-10005 delineate different depths, and therefore, do not agree.

6. COMPARISON WITH PRIOR SURVEYS

H-5822(1935) 1:20,000

Survey H-5822 covers the entire area common to survey H-10449. There is an average difference in depths of between 0.3 and 0.8 meters, with present survey being shoaler. Greater depth differences are readily apparent in the southern portion of Bayou Texar. South of the Cervantes Street Bridge, the present survey depths are generally one meter deeper. Dredging activity accounts for most of this change from the mouth of the Bayou to the Cervantes Street Bridge. Changes throughout the remainder of the survey area are primarily due to natural processes since 1935. The shoreline has generally remained stable with the addition of numerous private piers during the past several years.

There are no AWOIS items which originate with the prior survey H-5822.

Survey H-10449 is adequate to supersede the above mentioned prior survey within the common area.

7. COMPARISON WITH CHART

Chart 11383, 46th Edition, January 2, 1993; scale 1:30,000

a. Hydrography

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

Survey H-10449 is adequate to supersede charted hydrography within the common area, except as follows.

AWOIS item 7862, submerged wreck PD, charted at latitude 30/26/26.18N, longitude 87/08/23.88W, was not adequately investigated and should be retained at its charted position and labelled ED, See page 9 of the hydrographer's report for additional information.

AWOIS item 7863, submerged wreck PA, charted at latitude 30/25/30.71N, longitude 87/09/41.88W, was not adequately investigated for disproval by either side scan sonar or echo sounder development. This wreck PA should be retained as charted.

b. AWOIS

AWOIS items 7862, 7863, 7864, 8325 and 8326 originate with miscellaneous sources. Refer to the hydrographer's report and section 7 a. of this report for a discussion and disposition of these features.

c. Controlling Depths

There are no controlling depths found within the survey area.

d. Aids to Navigation

There are four fixed and one floating aid to navigation within the survey area. These aids were located and serve their intended purpose. Additionally four privately maintained red lights mark the fenders of the Pensacola Bay Bridge.

All landmarks should be retained as charted.

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

One danger to navigation was reported by the hydrographer. A copy of the report is attached. No dangers to navigation were generated during office processing.

8. COMPLIANCE WITH INSTRUCTIONS

Survey H-10449 adequately complies with the project instructions except where noted in this report.

9. ADDITIONAL FIELD WORK

This is an adequate hydrographic survey. Additional field work is recommended to complete the investigation on AWOIS items 7862 and 7863.

Charles R. Davies

C.R. Davies
Cartographer

APPROVAL SHEET
H-10449

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: 11/7/94
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.

Kathy Timmons ______ Date: 11/19/94
Commander Kathy Timmons, NOAA
Chief, Pacific Hydrographic Section

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Final Approval

Approved:

______ Date: 12-2-94
J. Austin Yeager
Rear Admiral, NOAA
Director, Coast and Geodetic Survey

NOAA FORM 75-96
(10-83)

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

MARINE CHART BRANCH

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-10449

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
11383	7/22/96	Mark D. Duffin	Full ~~Part Before~~ After Marine Center Approval Signed Via
			Drawing No. 42
11378	5/10/96	Mark D. Duffin	Full ~~Part Before~~ After Marine Center Approval Signed Via
			Drawing No. 28 Reapplied brought thru
			11383
			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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* SUPERSEDES C&GS FORM 8352 WHICH MAY BE USED.