H10492

NOAA FORM 76-35A

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

DESCRIPTIVE REPORT

Type of Survey ..... Hydrographic

Field No. AHP-10-9-93

Registry No. H-10492

LOCALITY

State ..... Florida

General Locality ..... Escambia Bay

Sublocality ..... Liveoak Point to Escambia River

.....

1993

CHIEF OF PARTY

LCDR James E. Waddell, Jr., NOAA

☆U.S. GOV. PRINTING OFFICE: 1987—755-739

NOAA FORM 77-28 (11-72)

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

REGISTER NO.
H-10492

HYDROGRAPHIC TITLE SHEET

FIELD NO.
AHP-10-9-93

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 Escambia Bay

Locality Liveoak Point to Escambia River

Scale 1:10,000 Date of survey 8/3/93 to 10/~~30~~29/93

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

Vessel NOAA Launch 0770 and 0517

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

Surveyed by Atlantic Hydrographic Party

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

Graphic record scaled by GDH, VPL, JLB, CBM, RR

Graphic record checked by GDH, VPL, JLB, CMB, RR

Evaluation by: R. Davies Automated plot by PHS Xynetics Plotter

~~Protracted by~~

Verification by R. Davies

Soundings in meters & decimeters ~~fathoms 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.

* Change 1 dated Jan. 4, 1993 / Change 2 dated Oct. 13, 1993

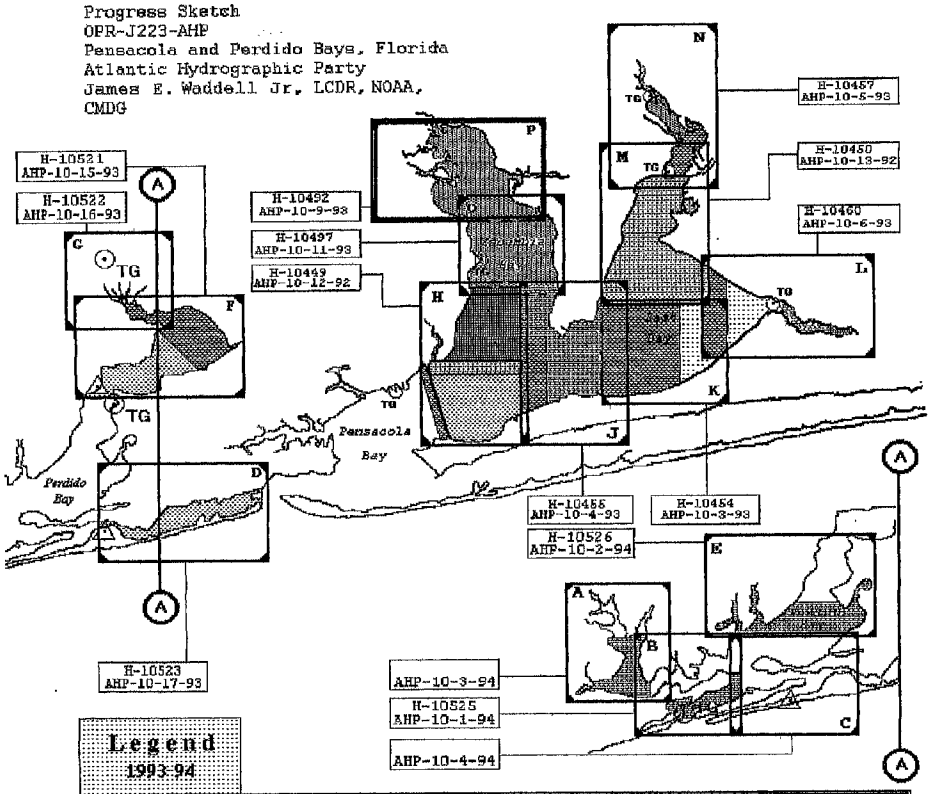
SC 1/28/97 6/2/95

Surf/AWOIS check 9/21/95 mcR

NOAA FORM 77-28 SUPERSEDES FORM C&GS-537.

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	1 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								
APR								
MAY								
JUN								
JUL								
AUG								
SEP								
OCT								

DESCRIPTIVE REPORT TO ACCOMPANY
HYDROGRAPHIC SURVEY H-10492
FIELD NO. AHP2-10-9-93
SCALE: 1:10,000
1993
ATLANTIC HYDROGRAPHIC PARTY
CHIEF OF PARTY: LCDR James E. Waddell, Jr.

A. PROJECT ✓

This survey was conducted according to Hydrographic Project Instructions OPR-J223-AHP, Pensacola and Perdido Bays, dated September 25, 1992. These were amended by Change No. 1, dated January 4, 1993 and Change No. 2, dated October 13, 1993.

The purpose of this project is to provide contemporary hydrography for the maintenance of existing charts. Prior surveys in this area were conducted in 1935. This survey is designated as sheet "P."

B. AREA SURVEYED ✓ See Evaluation Report, section 1

The survey area includes the northern portion of Escambia Bay, portions of the Escambia River and Mulatto Bayou. The survey limits are as follows:

North - 30°35'~~15~~21"N
South - 30°31'00"N
East - 087°06'~~40~~25"W
West - 087°11'~~00~~58"W

This survey was conducted from August 3, 1993 (DN 215) to October ~~29~~2, 1993 (DN 30~~2~~).

C. SURVEY VESSELS ✓

Vessel 0770 and vessel 0517, both 21-foot MonArks, were used to collect all survey data. Vessel 0517 was used only for developments, detached positions and chain drags. No problems were encountered with either vessel.

D. AUTOMATED DATA ACQUISITION AND PROCESSING ✓

All hydrographic data for this survey were processed with the Hydrographic Data Acquisition and Processing System (HDAPS). On-line data acquisition used version 4.03 of the PC-DAS suite of programs. Listings of program version numbers are appended. The following non-HDAPS computer programs were used:

VELOCITY (IBM PC)	Ver. 2.00 (3/9/90)
NADCON (IBM PC)	Ver. 1.01
WORDPERFECT (IBM PC)	Ver. 6.0

E. SONAR EQUIPMENT ✓

Not Applicable.

F. SOUNDING EQUIPMENT ✓

Echo soundings were taken on vessel 0770 with Innerspace model 448 depth sounder, serial number 241 and on vessel 0517 with Innerspace model 448 depth sounder, serial number 187. Neither depth sounder would digitize depths less than 0.4 meter.

A standard lead line calibrated in meters, was used during this survey for comparison readings with the echo sounder, on each vessel. A 3-meter long wooden sounding pole, constructed according to HSG. No. 69, was used when taking any pole soundings.

Depths on this survey ranged from 0.~~4~~ 2 to ~~9.4~~ 8.9 meters.

G. CORRECTIONS TO SOUNDINGS ✓

Soundings were recorded in meters. The Innerspace 448 depth sounder was calibrated for an assumed speed of sound through water of 1500 meters/second. Corrections for the speed of sound through water were computed from data taken with Odom Hydrographic Systems Digibar electronic speed of sound probes, serial numbers 154 and 155. Data quality assurance tests were performed before each cast. Program VELOCITY, version 2.00 was used to compute speed of sound corrections. Copies of the tables and velocity cast data are in the "Survey Separates." *

* Filed with the hydrographic data.

The following casts were taken:

Velocity Table No.	Cast No.	Cast/Deepest Depth (m)	Applicable DN	Cast Position	Day	
10	1	4.3/5.6	215-217	30°32'12"N 087°09'30"W	211	
15	2	5.0/6.5	221-231	30°24'45"N 087°08'00"W	225	
11	3	7.0/9.1	235-243	30°23'00"N 087°11'30"W	239	
12	4	8.0/10.4	251-252	30°32'10"N 087°07'24"W	251**	Used throughout the survey.
--	5	3.0/3.9	Not Used	30°31'10"N 087°08'40"W	259	
14	6	4.0/5.2	266-302	30°31'13"N 087°09'00"W	267	

A zero sound velocity corrector for all depths on days 221-231 was determined from cast 2 above. Because no HDAPS velocity tables are necessary for field processing of data on the HDAPS system, none were generated in the field for theses days. PHS has requested in a recent Preprocessing Examination report that these zero-corrector tables be generated by AHP. PHS agreed by telephone on June 14, 1994 to generate the table for these days. This was determined to be more efficient because the data is no longer on the field processing computer. Table number 15** should be assigned to the PHS generated table. Cast 5 was not used because no data were collected for which it would be applicable. ** TABLE #12 was used for S.V. corrections. Casts 2 and 3 fall outside the survey limits.

Any required adjustments of the echo sounders gain and chart speed were made and noted on the graphic records. The digitized soundings matched the Innerspace 448 echo sounder's trace to within plus or minus 0.1 meter for both units used on this survey. Any necessary corrections were made while scanning the graphic record.

Weather permitting, lead line comparisons were conducted each day of hydrography to determine an instrument corrector. No instrument error was detected from these comparisons. The lead line comparison form is in the "Survey Separates."*

A static draft of 0.3 meter was applied to the on-line data. The drafts for vessels 0770 and 0517 were measured by subtracting the difference from a punch mark on the side of each launch, 0.6 meter above the transducer, to the water surface.

* Filed with the hydrographic data

Settlement and squat measurements for vessel 0770 were performed on March 16, 1993 (DN 075), in the Blackwater River. Measurements for vessel 0517 were made on May 15, 1992 (DN 136), at Shalimar, Florida. The level method was used for both vessels. Settlement and squat correctors and the static draft corrector were applied on-line through the offset tables. Copies of the field data, the graphs of the settlement and squat correctors vs. RPM, and the offset tables are included in the "Survey Separates."*

The Pensacola, Florida tide station (872-9840), served as control for datum determination. This station is also the reference station for the predicted tides which were applied to the final field sheet. This survey required application of a 0 hr. 45 min. time corrector and a 1.15 range ratio.

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

Approved tides were requested from the Sea and Lake Levels Branch, N/OES231, in a letter dated June 14, 1994. A copy of the letter is appended. * Approved Tide Note dated July 6, 1994 is attached.

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

The horizontal control datum for this project is the North American Datum of 1983. One station, TRIS 1992, was used to control this survey. A copy of the Control Station List is appended.

The Atlantic Hydrographic Party used the Global Positioning System (GPS) to establish horizontal control for this project. The horizontal control report entitled "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 used as the method of positioning for all hydrographic data on this survey. An Ashtech model XII receiver, serial number 700354A2061 was used for the reference station. Ashtech sensors, serial number 700417B1039 on vessel 0770 and serial number 700417A1065 on vessel 0517, were used as the remote stations. Maxon VHF radios were used as the datalink between reference and remote stations. This equipment met the accuracy requirements for a 1:10,000 scale hydrographic survey.

Program MONITOR was run for 24 hours on November 12, 1992 to test the reference site for multi-path. The GPS availability at this site was determined to be better than 99% from this test. A copy of the "Plot of Radial Error in Position" and the "Outlier.sum" file are included in the "Survey Separates."*

Performance checks, as required by section 3.4.4 of the Field Procedures Manual were conducted daily by resting the launches alongside Blackwater Channel Light 30 or station PITT 1992. The

* Filed with the hydrographic data.

raw record and the abstract of these checks are included in the "Survey Separates."* AHP located these stations with GPS to third-order, class I standards. The data was included in the Horizontal Control Report. Abstracts of these checks are included in the "Survey Separates."*

As directed in section 3.4.2. of the Field Procedures Manual, hydrographic operations ceased whenever the horizontal dilution of precision (HDOP) values exceeded 3.8 This is calculated by the formula found in the Field Procedures Manual, using an ESE value of 4m, an EPE value of 15m, and an EDE value of 0.2m. The periods of poor satellite geometry causing high HDOP values were minimal on this survey. Reference Section 2, Evaluation Report for additional information.

Occasionally, an apparently good position plotted questionably on the raw track plot. This problem is attributable to the survey computer's inability to immediately compute an accurate position after an extended period of questionable HDOP. These positions were reviewed and then edited or rejected as warranted. Further analysis of this data during office processing found no significant problems.

J. SHORELINE ✓ See Evaluation Report, section 2

Shoreline shown on the final field sheet was transferred by hand from Cartographic Revision (BR148143) Survey (CRS) ~~003392.~~ This document consolidates recent photogrammetric data with TP-00540, which was compiled using NAD 1927 at 1:20,000 scale and enlarged to 1:10,000.

There is a difference in shoreline between the final field sheet and the boat sheet near 30°32'30"N, 087°10'15"W. The shoreline on the west side of the boat sheet was transferred from the unrevised TP-00540. The shoreline on the final field sheet was transferred from the CRS. This occurred because the CRS survey was not available from Photogrammetry when the boat sheet was generated.

Shoreline verification was conducted using main scheme hydrography that junctioned at shore and by visual inspection. Verified shoreline is shown in black ink on the final field sheet. Existing piers and other shoreline features which agreed with the shoreline manuscript were given reference numbers and are shown in black ink on the final field sheet.

The shoreline change shown on the final field sheet at 30°32'36"N, 087°10'30"W, occurred from natural causes and the wake and backwash from the tug and barge traffic navigating the Escambia River. The shoreline change has been shown in dashed red on the smooth sheet.

Shoreline features not shown on the revision survey were located by detached positions on days 272 (positions 2578-2579, 2581-2582, 2594, 2604, and 2606), 273 (positions 2669, 2673, 2676-2681, 2685-2688, 2696-2697), and 287 (position 3007). These features consist of piers, pier ruins, and groins. These shoreline features are shown on the final field sheet in red ink. (only piers) See eval report, section 2 for listing of new piers drawn in red on survey H-10492

The groins shown on the T-Map at 30°34'51"N, 087°09'42"W, are a small finger pier with an adjacent boat ramp to the east. Detached position 2678 was taken on the pier.

* Filed with the hydrographic data

The pier shown on the CRS at 30°31'30"N, 087°10'53"W, no longer exists. A visual search was performed on day 287 between the two existing piers shown. The search was made from shore out to one meter of water with good visibility to the bottom. Nothing was found. Detached position 3009 was taken to show that the search was performed in the correct area. This feature is not shown on the smooth sheet. ✓

The pier shown on the CRS at 30°32'54"N, 087°07'34"W no longer exists. A 50-meter radius visual search was conducted over the area from shore out to 1.5 meters of water with good visibility of the bottom. Nothing was found to indicate any submerged ruins. Four piles were located at the offshore end of the pier shown on the CRS. Detached position 2583 was taken alongside the piles. Area shown on the smooth sheet with pile symbology and labeled piles. Piles bare 1.4 meters at MHW. ✓

Recommendation: The hydrographer recommends that details seaward of the HWL from this survey be used to supersede ~~CRS-003392~~ of (TP-00540), BP-148143 in the common area. Concur

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

K. CROSSLINES ✓

A total of 20.2 linear nautical miles of crosslines were run. This equals 11% of the main scheme hydrography. Cross line soundings agree with the main scheme soundings to within 0.4 meters.

L. JUNCTIONS ✓ See EVAL Report, section 5

This survey junctions to the south with H-10497, a 1:10,000 scale survey from 1993. Junction soundings between H-10497 and this survey agree to within 0.4 meter. There is no survey junction to the north.

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

This survey was compared with prior survey H-5822, a 1:20,000 scale survey from 1935.

None of the AWOIS items investigated on this survey originated from the prior survey. All items addressed on this survey are discussed on the AWOIS item investigation reports appended to this report.

Prior survey agreement with this survey is good. The current soundings are within 2 feet (0.6 meter) of prior survey soundings.

* Filed with the hydrographic data.

Minor shoreline changes were noted from the prior survey on the western edge of this survey around the entrance to the Escambia River. A more significant change was noted northeast of Liveoak Point as well as the addition of private piers, most of which are shown on the T-map. ✓

The area shown foul with pilings at 30°32'18"N, 087°11'15"W, on the prior survey, still exists. Detached positions 3014-3015 were taken to define this area. The foul area is outlined by a black dashed line on the final field sheet. This area is also addressed in section "O" of this report. On the smooth sheet this limit line is labeled ruins. ✓

The area shown foul with pilings at 30°31'18"N, 087°10'24"W no longer exists. There were no piles visible while running main scheme hydrography in this area. The piles were searched for using 50-meter line spacing as well as by conducting a visual search with good visibility of the bottom over the area. Nothing was found. There are piers located in the area which are shown on the T-Map. This area is also addressed in section "O" of this report. ✓

N. ITEM INVESTIGATION REPORTS ✓

There were seven AWOIS items addressed as part of this survey.

AWOIS NO.	SECTION	STATUS	RECOMMENDATION (See following pages for charting disposition)
8331	N1	Resolved	Chart submerged obstruction
8332	N2	Resolved	Chart submerged obstruction Delete "Stake" notation
8333	N3	Resolved	Chart stake, Delete "Stakes Rep"
8334	N4	Resolved	Chart stakes
8335	N5	Disproved	Delete stump reported
8336	N6	Resolved	Chart submerged obstruction Delete "Stump Rep" note
8337	N7	Disproved	Delete "Shl rep 8 ft June 1990"

N1. AWOIS No: 8331 ✓✓

Item Description: Underwater obstruction

Source: CL1069/86--LNM37/86--8th CGD

AWOIS Position: Lat - 030/31/15.00N Lon - 087/08/59.00W

Required Investigation: ES, BD, DI **Search Radius:** 50 meters

Charts Affected: 11378SC, 11382

INVESTIGATION

Date(s)/DN(s): October 29, 1993 / 302

Position Numbers: 3252 **Launch Number**: 0517

Investigation Used: BD, DI

Position Determined By: DGPS

Investigation Summary: A chain drag was performed on day 300, (positions 3236-3247). A hang occurred at position 3247. A dive investigation was performed on the day listed above. The divers found a log 8-meters long and an area 10-meters by 10-meters covered with concrete rubble. The log and rubble are both 0.5 meter off the bottom.

CHARTING RECOMMENDATION

The hydrographer recommends that a submerged obstruction be charted at the recommended position. chart as "Gp Obstn" with blue tint ~~concur~~

Recommended Position: 30°31'15.~~10~~09"N, 087°09'00.~~60~~4"W

Recommended Least Depth: 2.~~1~~0 meters at MLLW, corrected for ~~predicted~~ tides. Approved

N2. AWOIS No. 8332 ✓✓

Item Description: Obstruction

Source: CL1779/70--USPS, 10/1/70

AWOIS Position: Lat - 030/31/24.70N Lon - 087/08/58.88W

Required Investigation: VS, ES, BD, DI **Search Radius:** 150 meters

Charts Affected: 11378SC, 11382

INVESTIGATION

Date(s)/DN(s): October 29, 1993 / 302

Position Numbers: 3248 **Launch Number**: 0517

Investigation Used: BD, DI

Position Determined By: DGPS

Investigation Summary: There were no stakes visible during main scheme hydrography in the area. A chain drag was performed on day 286, (positions 2940-2982). A hang occurred southeast of the AWOIS position. A dive investigation was performed on day 302. The divers found a wooden obstruction 0.5 meter by 0.5 meter.

CHARTING RECOMMENDATION

The hydrographer recommends that the stake notation be removed from the chart and a submerged obstruction be charted at the recommended position below. ~~Cancel~~ Chart as "6 Obstn" with blue tint

Recommended Position: 30°31'23.~~90~~87"N, 087°08'58.~~20~~19"W

Recommended Least Depth: 2.~~1~~9 meters at MLLW, corrected for ~~predicted~~ Approved tides.

N3. AWOIS No. 8333 ✓ ✓

Item Description: Stakes reported

Source: CL1779/70--USPS--10/1/70

AWOIS Position: Lat - 030/31/42.70N Lon - 087/07/41.88W

Required Investigation: VS, ES, **Search Radius:** 150 meters

Charts Affected: 11378SC, 11382

INVESTIGATION

Date(s)/DN(s): October 13, 1993 / 286

Position Numbers: 2985, 2986 **Launch Number**: 0517

Investigation Used: VS

Position Determined By: DGPS

Investigation Summary: There were no stakes visible during main scheme hydrography in the area. A visual search was performed over the required area from shore to 1.4 meters of water with good visibility of the bottom and nothing was found. Detached position 2986 was taken to show that the search was performed in the correct area. Two metal stakes were located 240 meters east-northeast of the AWOIS position. The stakes were 2 meters apart. Detached position 2985 was taken on day 286, at the center of the two stakes.

CHARTING RECOMMENDATION

The hydrographer recommends that the "Stakes rep" notation be removed from the chart and a stake symbol with "Stakes" notation be charted at the recommended position. Concur ✓

Recommended Position: 30°31'44.07"N, 087°07'32.72"W

Recommended Least Depth: stake ~~exposed~~ bares 1.3 meters at ~~MLLW~~ HW, corrected for ~~predicted~~ approved tides.
stake ~~exposed~~ bares 0.8 meter at ~~MLLW~~ HW, corrected for ~~predicted~~ approved tides.

N4. AWOIS No. 8334 ✓✓

Item Description: Obstruction

Source: CL428/74--USPS--08/30/75

AWOIS Position: Lat - 030/31/42.00N Lon - 087/08/00.00W

Required Investigation: VS, ES **Search Radius:**

Charts Affected: 11378SC, 11382

INVESTIGATION

Date(s)/DN(s): September 29, 1993 / 272

Position Numbers: 2598-2599
2601,2603

Launch Number: 0517

Investigation Used: VS

Position Determined By: DGPS

Investigation Summary: ~~Four~~ Three stakes and one pipe were located during a visual search of the area. Detached positions were taken on each.

CHARTING RECOMMENDATION

The hydrographer recommends that stakes and pipe be charted at the recommended positions below and the "Stakes Rep" notation be deleted. Concur

Recommended Position: Position 2598 - 30/31/53.~~43~~2N 087/07/47.89W
Position 2599 - 30/31/52.79N 087/07/52.09W
Position 2601 - 30/31/47.3~~8~~3N 087/07/56.~~39~~33W
Position 2603 - 30/31/42.0~~8~~7N 087/07/58.48W

Recommended Least Depth: Position 2598 - 1.~~8~~4 meters ~~above at time of survey~~ bare at MHW STAKE
Position 2599 - 0.~~2~~5 meters ~~above at time of survey~~ uncovers at MHW STAKE
Position 2601 - ~~1.0~~0.9 meters ~~above at time of survey~~ bare at MHW STAKE
Position 2603 - ~~1.0~~0.1 meters ~~above at time of survey~~ bare at MHW - pipe

N5. AWOIS No. 8335 ✓✓

Item Description: Obstruction , (visible stump)

Source: CL63/76--USPS--08/30/75

AWOIS Position: Lat - 030/31/42.70N Lon - 087/09/05.88W

Required Investigation: VS, BD, ES, DI **Search Radius:** 200 meters

Charts Affected: 11378SC, 11382

INVESTIGATION

Date(s)/DN(s): October 4, 1993 / 277
October 8, 1993 / 281

Position Numbers: 2761-2824
2825-2907

Launch Number: 0517

Investigation Used: BD

Position Determined By: DGPS

Investigation Summary: There were no stumps visible during main scheme hydrography in the area. A chain drag at 10-meter line spacing was performed over the required area on the days and positions listed above. Nothing was found.

CHARTING RECOMMENDATION

The hydrographer recommends that the charted "Stump PA" be removed from the chart. Concur

Recommended Position:

Recommended Least Depth:

N6. AWOIS NO: 8336 ✓

Item Description: Obstruction (base of a large cypress tree)

Source: CL1443/75--USPS

AWOIS Position: Lat - 030/32/04.70N Lon - 087/08/42.88W

Required Investigation: VS, ES, BD, DI **Search Radius:** 200 meters

Charts Affected: 11378SC, 11382

INVESTIGATION

Date(s)/DN(s): Oct. 29, 1993 / 302

Position Numbers: 3250 **Launch Number**: 0517

Investigation Used: BD, DI

Position Determined By: DGPS

Investigation Summary: There were no stumps visible during main scheme hydrography in the area. A chain drag was performed on day 292 (positions 3027-3101) and day 293 (positions 3102-3165). A hang occurred southeast of the AWOIS position. A dive investigation was performed on day 302. The divers found a stump 0.5 meter off the bottom.

CHARTING RECOMMENDATION

The hydrographer recommends that the "PA Subm snag rep" note be deleted and a ~~stump~~ obstruction (stump) be charted at the recommended position below. ~~Concur~~

chart as "Co Obstn" with blue tint

Recommended Position: 30°32'02.50"N, 087°08'39.05"W

Recommended Least Depth: ~~2.0~~ 1.9 meters at MLLW, corrected for ~~predicted~~ approved tides

N7. AWOIS NO: 8337 ✓✓

Item Description: Obstruction

Source: LNM23/90--8th CGD, 6/5/90

AWOIS Position: Lat - 030/32/30.00N Lon - 087/10/12.00W

Required Investigation: ES **Search Radius:**

Charts Effected: 11378SC, 11382

INVESTIGATION

Date(s)/DN(s): August 26, 1993 / 238

Position Numbers: 1634 -1636, 1663 - 1666, 1658 - 1662 **Launch Number**: 0517

Investigation Used: ES

Position Determined By: DGPS

Investigation Summary: The charted shoaling reported as "8ft. June 1990", no longer exists. A phone conversation with Jim Walker (phone 205-690-2505), from the Corps of Engineers office in Mobile, Alabama informed AHP that the area was dredged in July, 1990. Shoaling to 4.5 feet was found east of the charted shoaling, while running channel lines in the area. This shoaling is located along the south edge of the channel leading into the Escambia River, north of a line between daybeacon "21" and buoy C"19." This was reported in a letter to the Commander (OAN), Eighth U.S. Coast Guard District, dated July 6, 1994.

CHARTING RECOMMENDATION

The hydrographer recommends that the "Shl rep 8ft June 1990" note and it's associated identification arrow be deleted and a "~~4~~5ft 1993" note be charted with an arrow pointing to the recommended position. This area should be monitored, see Evnt Rpt, section 7.C. concur

Recommended Position: 30°32'30"N, 087°10'06"W

Recommended Least Depth: 4.~~6~~9ft. (1.~~4~~5m) at MLLW, corrected for ~~predicted~~ Approved tides.

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

Comparisons were made with the following chart:

Chart No.	Edition	Edition Date
11378	25th	June 22/91
11378	26th	Sept. 5, 1992
11378	27th	MAY 7, 1994

There are no significant differences between the 25th edition which was enlarged to 1:10,000 scale for comparison with this survey, and the 26th edition, which is the charts latest edition. Controlling depths, shoreline and note "Shl rep 8ft June 1990", these are the differences between the 26th and 27th editions.

Surveyed soundings were 0.3 feet (0.1 meter) to 2.0 feet (0.6 meter), deeper than those charted.

Two dangers to navigation were discovered on this survey. Shoaling to 4.5 feet was found east of the charted 8 ft. shoaling, while running channel lines in the area. This shoaling is located along the south edge of the channel leading into the Escambia River, north of a line between daybeacon "21" and buoy C"19." This was reported in a letter to the Commander (OAN), Eighth U.S. Coast Guard District, dated July 6, 1994. A copy of the letter is appended. The other danger was an uncharted stump found at 30°32'23.70"N, 087°09'38.54"W. The stump* was 1.1 meters above the water at MLLW, corrected for predicted tides, and was reported in a letter to the Commander (OAN), Eighth U.S. Coast Guard District, dated July 8, 1994. A copy of the letter is appended. Stump is shown on the smooth sheet as bares 0.9 meters at MHW, corrected for approved tides.

The spoil area centered at 30°32'06"N, 087°09'48"W, is still active according to Mr. Jim Walker of the U. S. Army Corps of Engineers (phone 205-690-3319) in Mobile, Alabama.

Recommendation: The spoil area should remain as charted. Concur

The charted 6-foot sounding at 30°32'10"N, 087°09'36"W, was developed at 50-meter line spacing on day 267 (positions 2558-2570). The shoalest sounding found was 5.6ft. (1.7 meters).

Recommendation: Representative soundings from this survey should be charted in this area. Concur

An area foul with stumps and submerged stumps was located within the survey area. The foul area begins at the offshore end of the pier located at 32°33'24"N, 087°08'38"W, and continues south along the offshore end of piers on Fisherman's Point, to position 2691 at 30°33'07.48"N, 087°08'18.54"W, south-southeast of Fisherman's Point. The foul area is shown by a dashed black line on the final field sheet.

Recommendation: This foul area should be charted. Concur

While conducting a chain drag for AWOIS Item 8335, a hang occurred outside the search area. A dive investigation was performed on day 302. The divers found a large oyster bed. Detached position 3249 at 30°31'41.94"N, 087°09'14.17"W, was taken to position the oyster bed.

Recommendation: An oysters notation should be added to the chart at the noted position. concur

Numerous uncharted piles were located within the survey area. Detached positions were taken on the following days: 272 (positions 2583-2584, 2605), 273 (positions 2664-2665, 2667, 2670-2671), 274 (positions 2962-2964, 2703-2705, 2707-2709), 286 (positions 2987, 3005), and 287 (positions 3006, 3012-3013, 3016, 3022-3025). Positions for these piles are listed in the appended D.P. Editor. Because these piles are nearshore and in depths of 1 meter or less, they were not considered dangers to navigation. These features have been shown on the smooth sheet.

Recommendation: The piles at the above positions should be charted. concur

Four uncharted stakes were located within the survey area. Detached positions were taken on the following days: 272 (position 2596) and 273 (positions 2672, 2674-2675). Positions for these stakes are listed in the appended D. P. Editor. Because these stakes are nearshore and in depths of 1 meter or less, they were not considered dangers to navigation. These features have been shown on the smoothsheet.

Recommendation: The stakes at the above positions should be charted. concur

Several uncharted features were located within the survey area. Detached positions were taken on the following days: 267 (position 2555, stump), 272 (position 2595, pipe), and 274 (positions 2698, submerged obstr., 2716, duck blind ruins). Positions for these features are listed in the appended D. P. Editor. With the exception of the stump at position 2555, the features are nearshore and in depths of 1 meter or less, and were not considered dangers to navigation. The least depth on the submerged obstruction is within 0.1m* of the surrounding water depth. The stump was reported in a danger to navigation letter discussed earlier in this section. * The pipe covers 0.4 meters at MLLW after application of approved tides. Surrounding depths of water are generally 0.7 meters

Recommendation: The stump, pipe, submerged obstruction, and duck blind ruins should be charted. concur

Three areas that are charted as uncovering areas, no longer exist. The main scheme hydrography was split to 50 meters in these areas on day 267 (positions 2517-2539). The areas are located at:

Lat.	Long.
30°32'21"N,	087°11'12"W
30°32'03"N,	087°11'15"W
30°31'21"N,	087°10'30"W

Recommendation: Representative soundings from this survey should be charted in the above areas. concur

A 50-meter radius chain drag, at 10-meter line spacing, was performed in the area of the charted snag located at 30°32'30"N, 087°08'22"W, on day 272 (positions 2607-2628). Nothing was found.

Recommendation: Delete the charted snag. Concur

A 50-meter radius chain drag, at 10-meter line spacing, was performed in the area of the charted stake located at 30°32'08"N, 087°08'29"W, on day 272 (positions 2629-2640). Nothing was found.

Recommendation: Delete the charted stake.

A 50-meter radius chain drag, at 10-meter line spacing, was performed in the area of the charted pile located at 30°34'38"N, 087°10'04"W, on day 274 (positions 2717-2738). Nothing was found.

Recommendation: Delete the charted pile. Concur

A 50-meter radius chain drag, at 10-meter line spacing, was performed in the area of the charted stake located at 30°34'27"N, 087°09'31"W, on days 274 (positions 2739-2760) and 281 (positions 2908-2917). Nothing was found.

Recommendation: Delete the charted stake. Concur

A 50-meter radius chain drag, at 10-meter line spacing, was performed in the area of the charted pile located at 30°31'50"N, 087°09'27"W, on day 281 (positions 2918-2939). Nothing was found.

Recommendation: Delete the charted pile. Concur

A 50-meter radius chain drag, at 10-meter line spacing, was performed in the area of the charted stake located at 30°31'36"N, 087°10'59"W, on day 300 (positions 3167-3192). Nothing was found.

Recommendation: Delete the charted stake. Concur

A 140-meter by 200-meter area was covered by a chain drag, at 10-meter line spacing in the area of the charted stakes located at 30°31'18"N, 087°09'05"W, on day 300 (positions 3193-3232). A hang occurred during the drag. A dive investigation was performed on day 302 at the hang site. The divers found the bottom covered with rip-rap. Detached position 3251 was taken on the least depth of the obstruction, which was 2.3 meters below the surface at MLLW, corrected for ~~predicted~~ approved tides.

Recommendation:. The charted stakes should be deleted and an obstruction should be charted at 30°31'17.33"N, 087°09'03.14"W. The least depth in this area is an obstruction, submerged 1.7 meters at MLLW. This sounding originates from junctional survey H-10497 (1985) and has been transferred to the smooth sheet. Concur

The "Or Float Navy Maintd" at 30°33'02"N, 087°09'01"W, no longer exists. There was no float visible during main scheme hydrography in the area. Telephone conversations with NAS Pensacola, Florida and NAS Whiting Field, Milton, Florida, both said that they knew nothing about the float. The U. S. Coast Guard Aids to Navigation Team in Pensacola, Florida also has no knowledge of the float.

Recommendation: The "Or Float Navy Maintd" notation and symbol should be deleted 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 fourteen aids to navigation located within the survey area. Four are lighted, six are daybeacons and four are buoys. Thirteen of the aids are listed in the U. S. Coast Guard Light List, Volume IV, Gulf of Mexico, 1993. Three of the aids have published positions. Thirteen of the aids are charted; green can buoy "21A" is not listed in the light list nor is it charted.

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

Escambia Bay Daybeacon 13 (Light List #4805)
Light List Published Position Not Listed
Surveyed Position (No. 2545) 30°31'33.06"N 087°09'11.95"W
Surveyed position is 80m S of charted position

Escambia Bay Daybeacon 14 (Light List #4810)
Light List Published Position Not Listed
Surveyed Position (No. 2544) 30°31'33.27"N 087°09'08.10"W
Surveyed position is 80m S of charted position

Escambia Bay Daybeacon 15 (Light List #4815)
Light List Published Position Not Listed
Surveyed Position (No. 2546) 30°32'06.66"N 087°09'33.38"W
Surveyed position agrees with charted position

Escambia Bay Daybeacon 16 (Light List #4820)
Light List Published Position Not Listed
Surveyed Position (No. 2547) 30°32'10.25"N 087°09'31.20"W
Surveyed position agrees with charted position

Escambia Bay Daybeacon 17 (Light List #4825)
Light List Published Position Not Listed
Surveyed Position (No. 2549) 30°32'22.18"N 087°09'45.18"W
Surveyed Position is 130m S of charted position

Escambia Bay Light 18 (Light List #4830)
Light List Published Position Not Listed
Surveyed Position (No. 2548) 30°32'24.80"W 087°09'40.16"W
Surveyed position is 110m SSE of charted position

Escambia Bay Green Can 19 (Light List # 4835)
Light List Published Position Not Listed
Surveyed Position (No. 2550) 30°32'26.39"N 087°09'54.20"W
Surveyed Position is 150 S of charted position

Escambia Bay Red Nun 20 (Light List #4840)
Light List Published Position Not Listed
Surveyed Position (No. 2551) 30°32'29.06"N 087°09'55.97"W
Surveyed position 100m SE of charted position

Escambia Bay Daybeacon 21 (Light List #4845)
Light List Published Position Not Listed
Surveyed Position (No. 2553) 30°32'30.59"N 08710'10.99"W
Surveyed position is 40m SSW of charted position

Escambia Bay Green Can 21A (Not in Light List)
Light List Published Position None
Surveyed Position (No. 2554) 30°32'39.43"N 08710'41.81"W
Not Charted

Escambia Bay Red Nun 22 (Light List #4850)
Light List Published Position Not Listed
Surveyed Position (No. 2552) 30°32'32.41"N 08710'07.84"W
Surveyed Position is 120m SE of charted position

Escambia Bay Pipeline Light A (Light List #4855) - Privately maintained
Light List Published Position 30°33.2'N 087°09.1"W
Surveyed Position (No. 2684) 30°33'12.87"N 087°09'02.42"W
Surveyed position is 50m E of charted position

Escambia Bay Pipeline Light B (Light List #4860) - Privately maintained
Light List Published Position 30°33.4'N 087°08.9'W
Surveyed Position (No. 2683) 30°33'26.64"N 087°08'56.90"W
Surveyed position agrees with charted position

Escambia Bay Pipeline Light C (Light List #4865) - Privately maintained

Light List Published Position	30°33.6'N	087°08.9'W
Surveyed Position (No. 2682)	30°33'40.36"N	087°08'51.41"W

Surveyed position is 50 NE of charted position

All of the aids to navigation serve their intended purposes. concur

There is one pipeline within the survey area. This pipeline is marked with three lights. The lights are labeled "A", "B", and "C" and have white diamond shaped dayboards and orange reflector tape. The diamond shaped dayboards read "Danger Submerged Pipeline." No pipeline signs were located on shore.

The overhead power cable centered at 30°32'51"N, 087°07'39"W, no longer exists. A submerged cable is now at this location. There were signs located on shore noting the submerged cable. Detached positions were taken on the signs on day 272 (positions 2585, 2589). The overhead power cable supports are still in place and consist of a row of 12 piles. Detached positions were taken on day 272 (positions 2586-2588), on the pile at each end of the row and on the center pile. The remaining piles are evenly spaced between the detached positions. To avoid congestion on the final field sheet detached positions were not taken on all of the piles. chart row of piles between pos# 2586 and 2588.

None of the bridge vertical clearances located within the survey area were suspect and they should all remain as charted. concur

R. STATISTICS ✓

Description	0770	0517	Total
Total Number of Positions	1960	753	2713
Total Lineal Nautical Miles of Hydrography	209.9	3.5	213.4
Total Square Nautical Miles of Hydrography			8.0
Days of Production	4	13	27
Detached Positions		101	101
Bottom Samples		37	37
Tide Stations			2
Velocity Casts			4
Duplicated Positions			0

S. MISCELLANEOUS ✓

No anomalous current conditions were observed while conducting this survey.

Thirty-seven bottom samples were taken and submitted to the Smithsonian Institution as directed in section 6.7 of the project instructions. Bottom sample positions and descriptions are plotted on the overlay and are listed on the Oceanographic Log Sheet-M, NOAA Form 75-44, in the "Survey Separates." *

There were no predicted tide anomalies observed during this survey.

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

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

Positions 1026 through 1033 fall within the limits of plotter sheet eight, but were logged on plotter sheet seven.

T. RECOMMENDATIONS ✓

Recommendations concerning this survey are made in sections "J", "N", and "O" of this report. No inadequacies, additional work, nor further investigations were identified after field work was completed. See Func Report, section 4

U. REFERRAL TO REPORTS ✓

Title	Transmittal Information
Descriptive Report to Accompany Survey H-10497	Pacific Hydrographic Section N/CG245 Seattle, WA (1994)
Horizontal Control Report for OPR-J259-AHP2	Field Photogrammetry Section (N/CG23322) Norfolk, VA (1992)

* Filed with the hydrographic data

Chart Sales Agent Report for OPR-J259-AHP2	Chart Distribution Branch (N/CG33) Silver Spring, MD (1993)
User Evaluation Report OPR-J259-AHP2	Atlantic Hydrographic Section (N/CG244) Norfolk, VA (1993)
Coast Pilot Report	Pacific Hydrographic Section N/CG245 Seattle, WA (1993)

Submitted by: Glenn D. Hendrix
Launch Hydrographer-in-Charge

Control Station List
OPR-J223-AHP
H-10492
AHP-10-9-93

Station No.	Latitude	Longitude	Carto Code	Name
001	30°19'41.774"N	087°10'22.533"W	250	TRIS 1992
002	30°24'27.633"N	087°12'27.549"W	139	PITT 1992 (Calibration Point)

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE

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

July 6, 1994

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

ADVANCE INFORMATION

Dear Sir,

While conducting a basic hydrographic survey (Registry No. H-10492) of Pensacola, Florida, Escambia Bay, Liveoak Point to the Escambia River, shoaling was found along the south side of the channel into the Escambia River at 30°32'30"N, 087°10'06"W. The shoal, with a least depth of 4.5 ft., lies just north of a line between buoy C"19" and daybeacon "21." 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 shoaling was located using Differential GPS. This information affects chart 11378, 26th Edition/September 5/92, NAD 1983. A section of chart 11378, showing the location of this danger, is attached.

This is advance information which is subject to office review. Questions concerning this report should be directed to me at (203) 783-4287 or Mr. Dennis Hill at the Pacific Hydrographic Section, Seattle, WA at (206) 526-6853.

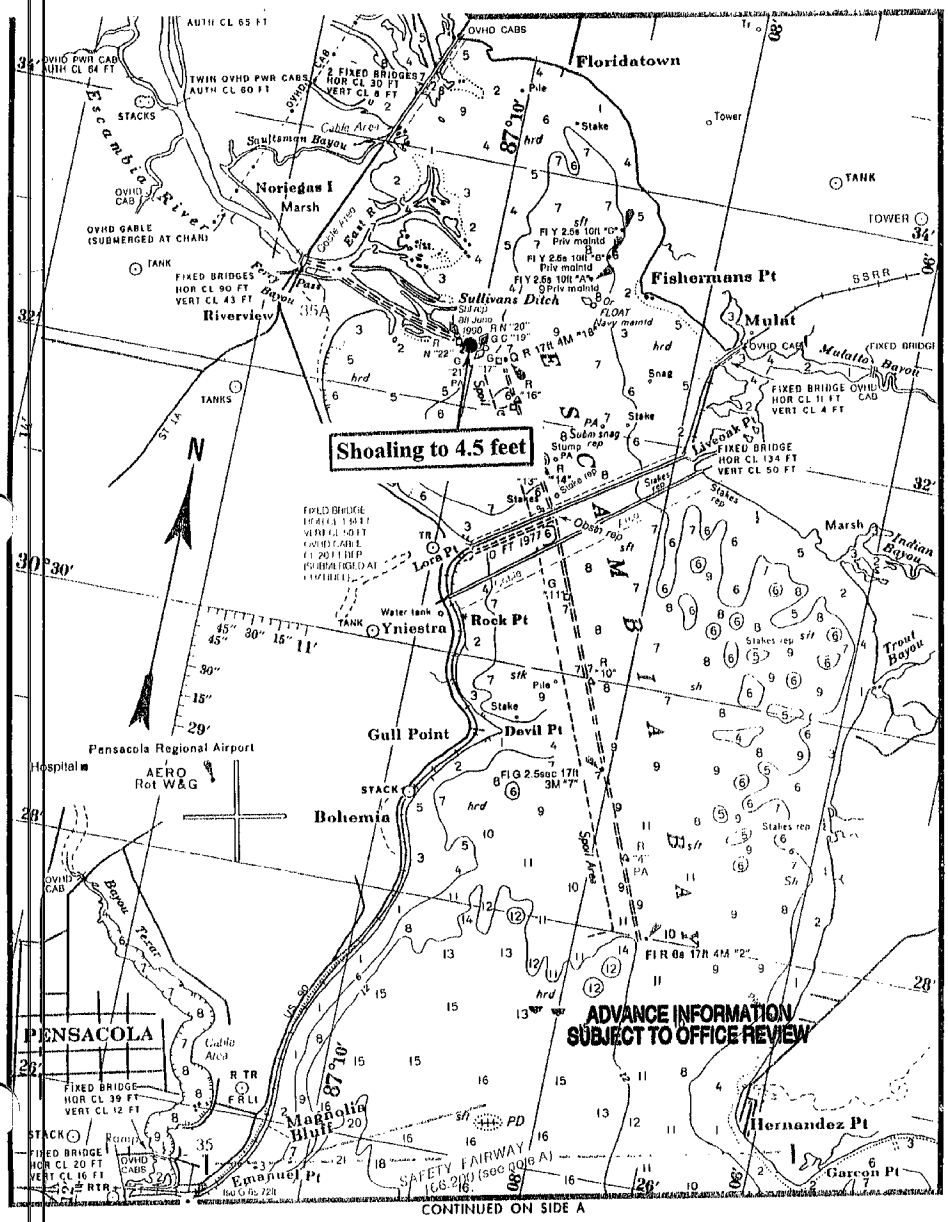
Sincerely,

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

Attachments

cc: N/CG221
N/CG245
DMAHTC

Section from Chart 11378
26th Edition, September 5/92
1:40,000 Scale



U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE

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

July 8, 1994

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

ADVANCE INFORMATION

Dear Sir,

While conducting a basic hydrographic survey (Registry No. H-10492) of Pensacola, Florida, Escambia Bay, Liveoak Point to the Escambia River, an uncharted stump was found 200 feet southeast of Escambia Bay Light 18 at 30°32'23.70"N, 087°09'38.54"W. The stump is exposed 3.6 feet and is located approximately 65 feet northeast of the Escambia Bay channel limits. This chart correction is recommended for inclusion in the Local Notice to Mariners.

The position is based on the NAD83 and the depth has been reduced to Mean Lower Low Water using predicted tides. The stump was located using Differential GPS. This information affects chart 11378, 26th Edition/September 5/92, NAD 1983. A section of chart 11378, showing the location of this danger, is attached.

This is advance information which is subject to office review. Questions concerning this report should be directed to me at (203) 783-4287 or Mr. Dennis Hill at the Pacific Hydrographic Section, Seattle, WA at (206) 526-6853.

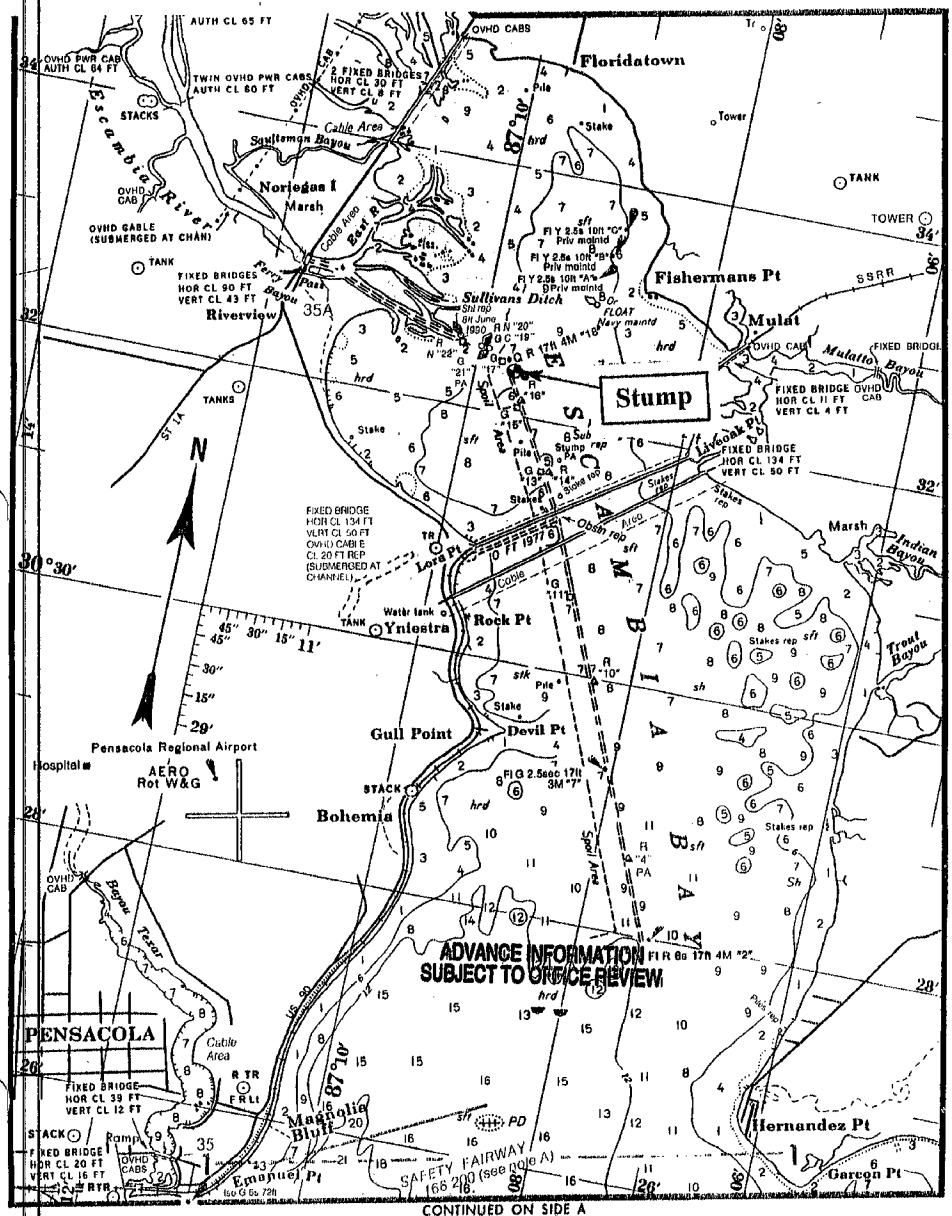
Sincerely,

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

Attachment

cc: N/CG221
N/CG245
DMAHTC

Section from Chart 11378
26th Edition
September 5/92
1:80,000 Scale



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
AHP	FLORIDA	ESCAMBIA BAY	9/93

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

OPR PROJECT NO.	JOB NUMBER	SURVEY NUMBER	DATUM
T-223-AHP		H-10492	NAD 1983

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
DAYBEACON	ESCAMBIA BAY DAYBEACON 13 1993 U.S.C.G L.L #4805 (VOL. IV)	30 31	33.06	87 09	11.95		DGPS HYDRO POSITION	11378
DAYBEACON	ESCAMBIA BAY DAYBEACON 14 1993 U.S.C.G. L.L. #4810 (VOL. IV)	30 31	33.27	87 09	08.10		DGPS HYDRO POSITION	11378
DAYBEACON	ESCAMBIA BAY DAYBEACON 17 1993 U.S.C.G. L.L. #4825 (VOL. IV)	30 32	22.18	87 09	45.18		DGPS HYDRO POSITION	11378
LIGHT	ESCAMBIA BAY LIGHT 18 1993 U.S.C.G. L.L. #4830 (VOL. IV)	30 32	24.80	87 09	46.16		DGPS HYDRO POSITION	11378
DAYBEACON	ESCAMBIA BAY DAYBEACON 21 1993 U.S.C.G. L.L. #4845 (VOL. IV)	30 32	30.59	87 10	10.99		DGPS HYDRO POSITION	11378
LIGHT	ESCAMBIA BAY PIPELINE LIGHT "H" 1993 U.S.C.G. L.L. #4855 (VOL. IV)	30 33	12.87	87 09	02.42		DGPS HYDRO POSITION	11378
LIGHT	ESCAMBIA BAY PIPELINE LIGHT "G" 1993 U.S.C.G. L.L. #4865 (VOL. IV)	30 33	40.36	87 09	51.41		DGPS HYDRO POSITION	11378

APPROVAL SHEET

BASIC HYDROGRAPHIC SURVEY
OPR-J223-AHP
AHP-10-9-93
H-10492
1993

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

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

ORIGINAL

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE: July 6, 1994

MARINE CENTER: Pacific

HYDROGRAPHIC PROJECT: OPR-J223-AHP2

HYDROGRAPHIC SHEET: H-10492

LOCALITY: Florida, Pensacola Bay, Fisherman's Point to Escambia Bay

TIME PERIOD: August 3 - October 27, 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): 3.02 ft.

HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 1.4 ft.

REMARKS: RECOMMENDED ZONING

1. South of 30° 33.0'N, times and heights are direct on Lora Point, Fl. (872-9816).
2. North of 30° 33.0'N, apply a +30 minute time correction, and heights are direct on Lora Point, Fl. (872-9816).

Note: Times are tabulated in Central Standard Time.

CHIEF, DATUMS SECTION

NOAA FORM 76-155 (11-72)

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

SURVEY NUMBER

H-10492

GEOGRAPHIC NAMES

Name on Survey	A ON CHART NO. 11378	B ON PREVIOUS SURVEY NO. H-5822	C ON U.S. QUADRANGLE MAPS	D FROM LOCAL INFORMATION	E SHORELINE BP-003392	F	G P.O. GUIDE OR MAP	H RAND MCNALLY ATLAS	K U.S. LIGHT LIST	
ALLIGATOR BAYOU					X					1
BANNAHASSEE RIVER					X					2
BASS HOLE COVE					X					3
COULTER BASIN					X					4
DEAD RIVER					X					5
EAST RIVER	X	X			X					6
ESCAMBIA BAY	X	X			X					7
ESCAMBIA RIVER	X	X			X					8
FERRY CUTOFF					X					9
FERRY PASS BAYOU	X				X					10
FISHERMANS POINT	X				X					11
FLORIDA (title)	X									12
FLORIDATOWN	X				X					13
GUM RIVER					X					14
LITTLE WHITE RIVER					X					15
LIVEOAK POINT					X					16
MACKY BAY					X					17
MULAT	X				X					18
MULATTO BAYOU	X	X			X					19
MURPHYS COVE					X					20
NORIEGAS ISLAND	X				X					21
PENSACOLA BAY (title)	X									22
PETERS BASIN					X					23
RIVERVIEW	X				X					24
SAULTSMAN BAYOU	X				X					25

NOAA FORM 76-155 SUPERSEDES C&GS 197

NOAA FORM 76-155 (11-72)

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

GEOGRAPHIC NAMES

SURVEY NUMBER: H-10492

Name on Survey	A ON CHART NO 11378	B ON PREVIOUS SURVEY NO. H-5822	C ON U.S. QUADRANGLE MAPS	D FROM LOCAL INFORMATION	E SHORELINE BP-003392	F	G P.O. GUIDE OR RAND MCNALLY ATLAS	H	K U.S. LIGHT LIST	
SAULTSMAN COVE					X					1
SIMPSON RIVER	X				X					2
SULLIVANS DITCH	X				X					3
										4
										5
										6
										7
										8
										9
										10
										11
										12
										13
										14
										15
										16
										17
				Approved:						18
				Charles S. Hamilton						19
				Chief Geographer - W/CG2x3						20
										21
				JUL 20 1994						22
										23
										24
										25

NOAA FORM 76-155 SUPERSEDES C&GS 197

NOAA FORM 77-27(H) (9-83) | U.S. DEPARTMENT OF COMMERCE | REGISTRY NUMBER

HYDROGRAPHIC SURVEY STATISTICS

H-10492

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	2					
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			2713
POSITIONS REVISED			
SOUNDINGS REVISED			
CONTROL STATIONS REVISED			
	TIME-HOURS		
	VERIFICATION	EVALUATION	TOTALS
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Pre-processing Examination by M. Larsen	*Beginning Date* 7/14/94	*Ending Date* 7/21/94
Verification of Field Data by R. Davies	*Time (Hours)* 67	*Ending Date* 11/29/94
Verification Check by B. Olmstead	*Time (Hours)* 2	*Ending Date* 5/18/95
Evaluation and Analysis by R. Davies	*Time (Hours)* 16	*Ending Date* 12/1/94
Inspection by B. Olmstead	*Time (Hours)* 22	*Ending Date* 5/22/95

EVALUATION REPORT
H-10492

1. INTRODUCTION

Survey H-10492 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
CHANGE NO. 2, dated October 13, 1993

This survey was conducted in Escambia Bay, Florida between Floridatown, Live Oak Point and Escambia River. The surveyed area extends from latitude 30/31/04N to latitude 30/35/21N, and from longitude 87/06/25W to longitude 87/11/58W and includes several smaller rivers, sloughs and bayous. Several fixed bridges exist within the survey limits. The largest two bridges span Escambia Bay between Lora Point and Liveoak Point. Other bridge structures cross several of the smaller rivers and bayous. The shoreline in the area is composed of sand and marsh and contains numerous private piers. The bottom consists of mud and sand. Other than the maintained channels, depths within the survey area, generally range from 0.2 meters to 2.5 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, Florida, gage 872-9816 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 21 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: 0.701 seconds (21.600 meters)
Longitude: -0.111 seconds (-2.946 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 Survey BP-148143 (TP-00540), updated by NANCI support data, was compiled on NAD 27 and applies to this survey.

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

Feature	Latitude(N)	Longitude(W)
pier	30/34/52.6	87/10/46.6
pier	30/34/47.4	87/10/20.6
pier	30/34/49.8	87/10/08.1
pier	30/34/49.7	87/10/05.8
pier	30/34/41.8	87/09/16.9
pier	30/33/31.0	87/08/35.1
pier	30/33/30.1	87/08/36.6

pier	30/33/27.2	87/08/38.1
pier	30/33/20.9	87/08/39.1
pier	30/33/05.9	87/08/13.9
pier	30/32/58.6	87/08/00.8
pier	30/33/04.8	87/07/37.7
pier	30/32/48.6	87/06/54.6
pier	30/32/49.4	87/06/53.7
pier	30/32/27.4	87/07/21.1

The following shoreline change is depicted on the smooth sheet with a dashed red line and was transferred from the final field sheet without supporting positional information. This revision is approximate but adequate to supersede the common photogrammetrically delineated shoreline.

Feature	Latitude(N)	Longitude(W)
HWL between	30/32/30	87/10/17
and	30/32/36	87/10/42

3. HYDROGRAPHY

Except as noted below, 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

With the exception of the following, 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 recommendation for charting a controlling depth is required, HM 4.12.5, K). This requirement was not completed for Escambia Bay or Escambia River Channel.

All charted landmarks are required to be addressed for suitability as fixed aids. The hydrographer should recommend that charted landmarks be retained, revised or deleted.

5. JUNCTIONS

Survey H-10492 junctions with the following survey.

Survey	Year	Scale	Area
H-10497	1993	1:10,000	South

The junction with survey H-10497 is complete. Several soundings have been transferred to survey H-10492 from survey H-10497 to better portray the bottom in the common area.

6. COMPARISON WITH PRIOR SURVEYS

H-5822(1935) 1:20,000

Survey H-5822 covers the entire area common to survey H-10492. There is an average difference in depths of less than one meter (1 - 2 ft), and in most cases, the prior soundings are deeper. The Escambia Bay and Escambia River Channel were not in existence during the last prior survey. Generally, where depths of 6 - 8 ft existed in 1935, depths are now 10 - 14 ft. The shoreline has generally remained stable with the addition of numerous private piers during the past several years. However, the area north of Escambia River reveals the shapes of many small islands and spits have changed since 1935. Another area of change lies northeast of Liveoak Point, latitude 30/32/15N, longitude 87/07/15W. Here, a channel and basin has been created which connects both Mulatto Bayou and Escambia Bay. Natural and manmade processes, the relative accuracy of the data acquisition techniques and different horizontal datums account for the depths and shoreline changes since the prior survey.

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

Survey H-10492 is adequate to supersede the above mentioned prior survey within the common area.

7. COMPARISON WITH CHART

Chart 11378SC, 27th Edition, May 7, 1994; scale 1:40,000/1:80,000

a. Hydrography

Charted hydrography originates with the prior survey mentioned in section 6 and

miscellaneous sources and requires no further discussion.

With the exception of the overhead cable mentioned in section Q of the hydrographers report, all charted overhead cables and submerged pipelines should remain as charted.

With the exception of the above features, survey H-10492 is adequate to supersede charted hydrography within the common area.

b. AWOIS

AWOIS items originate with miscellaneous sources. Refer to the hydrographer's report for discussion and disposition of these features.

c. Controlling Depths

Escambia Bay and Escambia River are maintained channels with a controlling depth of 9 feet (2.7 meters). The depths found during this survey are consistent with or deeper than the controlling depth. The following areas are noted for specific attention.

Depths of 0.7 to 2.0 meters (2.2-6.5 ft) were found by this survey to exist on the south side of the Escambia River Channel between Daybeacon 15, latitude 30/32/07N, longitude 87/09/33W, and Daybeacon 21, latitude 30/32/31N, longitude 87/10/11W. It is recommended that this area be monitored for shoaling.

Depths of 1.6 to 2.0 meters (5.2-6.5 ft) were found by this survey to exist on the east side of the Escambia Bay Channel between latitude 30/31/24N and Escambia Bay Light 18, latitude 37/32/25N, longitude 87/09/40W. It is recommended that this area be monitored for shoaling.

d. Aids to Navigation

There are seven fixed and four floating aids to navigation within the survey area. These aids were located and serve their intended purpose. Additionally, three privately maintained yellow lights mark a submerged pipeline.

All landmarks should be retained as charted. The hydrographer recommended no additional features of landmark value.

e. Geographic Names

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

f. Dangers to Navigation

Two dangers to navigation were reported by the hydrographer. Copies of the reports are attached. No dangers to navigation were generated during office processing.

8. COMPLIANCE WITH INSTRUCTIONS

Survey H-10492 adequately complies with the project instructions except where noted in this report.

9. ADDITIONAL FIELD WORK

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

C.R. Davies

C.R. Davies
Cartographer

APPROVAL SHEET
H-10492

Initial Approvals:

The completed survey has been inspected with regard to survey coverage, delineation of the depth curves, development of critical depths, cartographic symbolization, comparison with prior surveys and verification or disproval of charted data. The digital data have been completed and all revisions and processing have been entered in the magnetic tape record for this survey. Final control, position, and sounding printouts have been made and are included with the survey records. The survey records and digital data comply with NOS requirements except where noted in the Evaluation Report.

Bruce A. Olmstead Date: 5/24/95
Bruce A. Olmstead
Senior Cartographer, Hydrographic Processing Unit
Pacific Hydrographic Section

I have reviewed the smooth sheet, accompanying data, and reports. This survey and accompanying digital data meet or exceed NOS requirements and standards for products in support of nautical charting except where noted in the Evaluation Report.

Kathy Timmons Date: 5/31/95
Kathy Timmons
Commander, NOAA
Chief, Pacific Hydrographic Section

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Final Approval

Approved:

Andrew A. Armstrong III Date: June 9, 1995
Andrew A. Armstrong III
Captain, NOAA
Chief, Hydrographic Surveys Branch

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-10492

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
11378	5-31-95	[illegible]	Full Part Before After Marine Center Approval Signed Via Full application of
			Drawing No. soundings from smooth sheet.
			Full Part Before After Marine Center Approval Signed Via
			Drawing No.
			Full Part Before After Marine Center Approval Signed Via
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