10210

Diagram No. 1264-2

NOAA FORM 76-35A

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

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. HFP-10-2-86

Registery No. H-10210

LOCALITY

State Florida

General Locality Santa Rosa Sound

Sublocality Fort Walton Beach to One Mile East of Harris

1986

CHIEF OF PARTY
LCDR K.W. Perrin

LIBRARY & ARCHIVES

DATE August 17, 1987

☆U.S. GOV. PRINTING OFFICE: 1985—566-054

10210

CHIEF, CARTOG
SIGN OFF
ON RECORD
OF APPLICATION

NOAA FORM 77-28 (11-72)

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

HYDROGRAPHIC TITLE SHEET

REGISTER NO.

H-10210

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

FIELD NO.

HFP 10-2-86

State: Florida

General locality: Santa Rosa Sound

Locality: Fort Walton Beach To One Mile East Of Harris

Scale: 1:10,000 Date of survey: 2/28/86 to 5/12/86

Instructions dated: 9/11/84 Change # 1-10/31/84 Change # 2-10/8/85 Change # 3-12/11/85 Project No.: OPR-J288

Vessel: Hydrographic Field Party 2/3 Launch 0333

Chief of party: LCDR Kenneth W. Perrin, NOAA

Surveyed by: LTJG Kenneth P. Peters, NOAA

Soundings taken by echo sounder, hand lead, pole: All

Graphic record scaled by: KPP, RS, DBE, JPO, TMR

Graphic record checked by: K. Peters, R. Snow

Verification by: R. A. Shipley Automated plot by: PMC Xynetics Plotter

Evaluation by: C.R. Davies

Soundings in fathoms ~~feet~~ at MLW ~~MLLW~~: Feet, MLLW

REMARKS: All times in UTC. Separates are filed with the hydrographic data. Marginal notes in black by Evaluator.

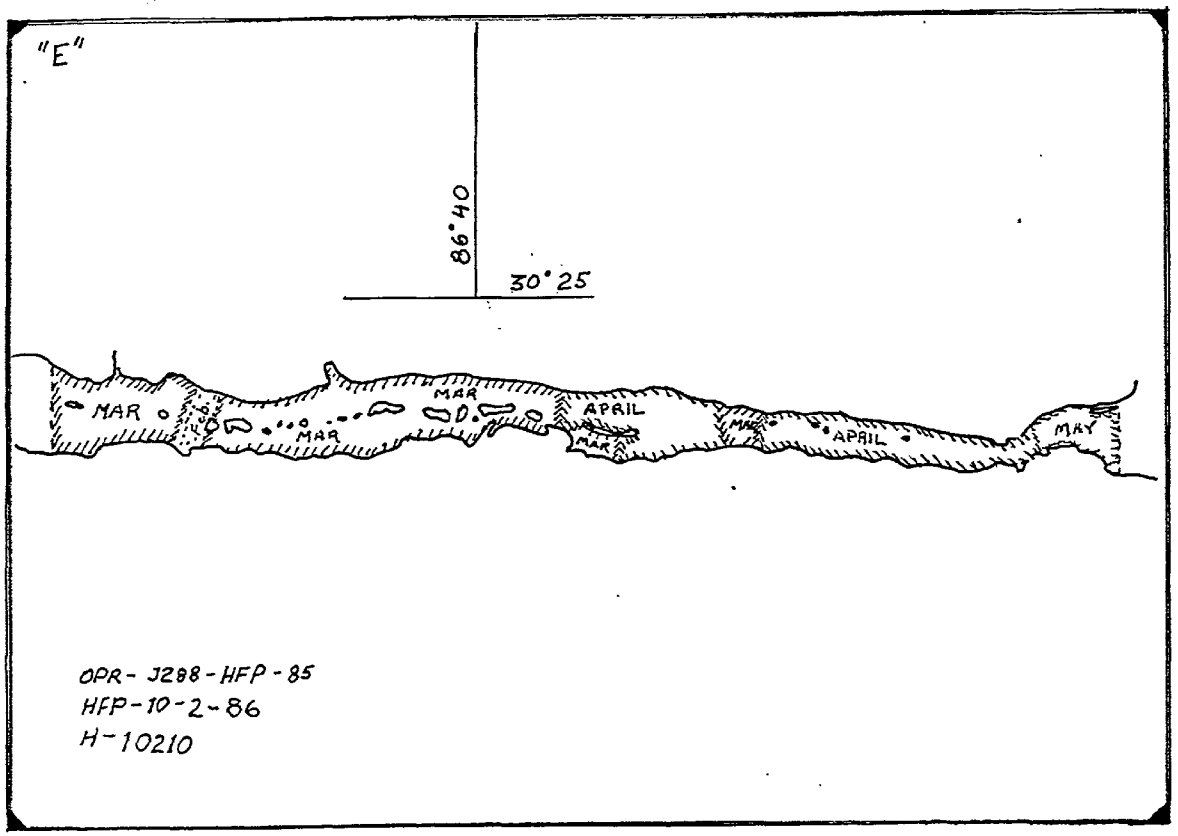
STANDARDS CK'D 8-29-87
C. Loy

ALWAYS & SURF ✓ 11/16/87 SJV

SC 1-31-97

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

☆ U.S. GOVERNMENT PRINTING OFFICE: 1978-665-010-1174



HFP - 2/3
Progress Sketch
OPR'J288-HFP-85
Santa Rosa Sound, Fl.

LCDR. K.W. Perrin; Chief, HFPS

Month	Feb. 86	Mar. 86	April 86	May 86		
Sq NM Sdg	0.2	1.3	1.0	0.5		
LNM Sdg	3.0	50.8	30.8	18.5		
LNM to/from	10.0	59.0	17.0	11.0		
LNM misc.	3.0	33.0	22.0	19.0		
DP/BS	0	36/9	96	14		
Cont. Sta. Set/Rec	0	0/0	0/0	20/20		
Tide Sta.	0	0	0	0		

DESCRIPTIVE REPORT
TO ACCOMPANY
HYDROGRAPHIC SURVEY H-10210
HFP-10-2-86

Scale: 1:10,000
Chief of Party: Lt. Cdr. Kenneth W. Perrin
Officer-in-Charge: Lt. (jg) Kenneth P. Peters
Hydrographic Field Party 2 and 3
Launch 0517, Skiff 333

A. PROJECT ✓

This survey was accomplished under project instructions OPR-J288-HFP-84, dated 11 September 1984, and amended by:

Change No. 1, 30 October 1984
Change No. 2, 8 October 1985
Change No. 3, 11 December 1985

The purpose of this project is to obtain hydrographic survey data for revision of existing nautical charts of Pensacola Bay and Santa Rosa Sound, Florida.

The sheet letter specified in the project instructions is "E".

B. AREA SURVEYED ✓ See EVAL Report Section I

The area surveyed was the Santa Rosa Sound from its eastern end at Ft. Walton Beach where it meets Choctawatachee Bay to one mile east of Harris at its western end. The survey is bounded by the following points:

Lat. 30°24'33"N, Long. 86°43'00"W
Lat. 30°24'03"N, Long. 86°43'03"W
Lat. 30°23'51"N, Long. 86°35'15"W
Lat. 30°24'21"N, Long. 86°35'15"W

Depths in the survey area ranged from zero to twenty-nine feet. Depths in the channel of the Intracoastal Waterway were generally fifteen feet or greater and six feet or less outside the channel.

The bottom in the survey area was primarily white or yellow sand. There were virtually no aquatic weeds observed during the time of the survey.

This survey was conducted from 28 February 1986 (DN 59) to 12 May 1986 (DN 132) inclusive.

C. SOUNDING VESSEL

The shoal characteristics through much of the survey area made normal launch operations impractical. Instead, all soundings were obtained with NOAA Skiff 333. NOAA Skiff 333 is a 13-foot Boston Whaler with a 25-HP Johnson outboard motor. The skiff has been equipped with a Fathometer, a transducer mounted in the hull, a Del Norte master/transponder atop a tower, and a DMU. A photograph of the skiff setup is included in the Appendix of this report.

A RPM indicator was not available for the outboard. Therefore, a practical hydro speed was determined before beginning hydrographic operations. The outboards throttle was marked (about one quarter throttle) so that hydro speeds would be consistent. The hydro speed of Skiff 333 was determined to be about 133 meters per minute or 4.3 miles per hour. This corresponds to about 1000 RPM in Launch 0517.

D. SOUNDING EQUIPMENT AND CORRECTIONS TO ECHO SOUNDINGS

The following Raytheon Fathometer equipment was used during the survey:

DN 59 -127:	RECORDER	MODEL	#719-C
		SERIAL	#7881
	ECU	MODEL	#N/A
		SERIAL	#N/A
	DIGITIZER	MODEL	#N/A
		SERIAL	#N/A
DN 129:	RECORDER	MODEL	#719-C
		SERIAL	#5799

On 7 May 1986 (DN 127) the motor on Fathometer, S/N 7881, failed during hydro operations. This Fathometer was removed and sent to AMC for repairs. Fathometer, S/N 5799, was used on 9 May 1986 (DN 129). On the remaining day of hydro, 12 May 1986 (DN 132), only one detached position was taken and the depth was measured by a lead line. The Fathometer was monitored continuously while sounding and was under constant adjustment to insure that no initial corrections were necessary.

Because of the shoal characteristics throughout most of the survey area, it was frequently necessary to take soundings with a sounding pole. Pole soundings were taken while on line whenever the Fathometer operator observed soundings within the initial of the fathogram. Depths determined by pole soundings were noted on the fathogram and recorded in the sounding volume.

Velocity and instrument corrections were determined by bar checks. A total of 36 bar checks were taken during the course of the survey. A velocity table was constructed from the bar check data and is included in the Appendix of this report.

Velocity tapes are provided with the survey data for application during smooth plotting at the Pacific Marine Center. Velocity corrections were not applied to the field sheets. The lengths of the bar check lines were measured prior to beginning survey operations and upon completion of the survey to insure the five-foot interval marks were accurate. The results of this inspection showed that no corrections were necessary.

A settlement and squat test was performed on 5 March 1986 at the Hurlburt Field Fuel Pier (lat. 30°24'28"N, long. 86°42'11"W). As described in Section C, an RPM indicator was not available for Skiff 0333. Therefore, the settlement and squat test only has values for dead in the water and hydro speed. It was not possible to obtain meaningful settlement and squat values for other RPM's because of the difficulty in reproducing speeds on consecutive runs. Difficulty in holding the rod vertically by the helmsman added more error when attempting to obtain values at higher RPM's. The results of this test are included in the Appendix of this report. Settlement and squat corrections will be applied via the TC/TI tape during plotting at the Pacific Marine Center.

Tide correctors were determined using unverified actual tide heights reduced to Mean Lower Low Water. Heights were obtained from the Fort Walton Beach, Santa Rosa Sound (872-9554) tide station.

A copy of the request for smooth tides is included in the Appendix of this report.

E. HYDROGRAPHIC SHEETS ✓

The field sheets were prepared using a PDP8/e computer and a DP-3 Complot plotter. Work sheets, semi-smooth sheets, smooth field sheets, and overlay sheets are included with this survey. The length of plotted data is 127 cm which may necessitate the use of an inset at the Pacific Marine Center. *No inset was necessary on the smooth sheet.*

Because of the complex contour characteristics throughout the survey area, all mainscheme hydrography was conducted with 50 meter spacing between arcs and are plotted on the smooth sheet. Development, bottom samples, detached positions, pre-survey review items, aids to navigation, and crosslines are shown on the overlay sheet. Projection parameter tape listings for the field sheets are included in the Appendix of this report. The final smooth sheet and verification of this survey will be accomplished at the Pacific Marine Center.

F. CONTROL STATIONS ✓ See EVAL Report Section 2

Control stations used during this survey were either existing geodetic control stations published by NGS or established by N/MOA2x1 to Third-order, Class 1 standards. All stations are referred to the North American 1927 Datum. A list of all control stations used during this survey is included in the Appendix of this report.

G. HYDROGRAPHIC POSITION CONTROL ✓ See EVAL Report Section 2

Range-Azimuth position control was used throughout the entire survey with the exception of some positions in areas not visible from any occupiable control stations. The locations of these positions were determined from time and course and are annotated in the sounding volumes as See Field Sheet (SFS).

The following is a list of control equipment used during the survey:

ITEM	MANUFACTURER	MODEL	SER. NUM.
Sextant	Tamaya		T-2983
Theodolite	Nikon	NT-2D	031045
Elect-Dist-Meas	Hewlett-Packard	3808-A	1723A0012
Elect-Dist-Meas	Topcon	ET-1	F30868
Dist-Meas-Unit	DNTI	202	179
DN-Master	DNTI	78	1318
DN-Remote	DNTI	76	667
DN-Remote	DNTI	78	1322

No unusual problems were encountered with any equipment that may have degraded position accuracy.

The control equipment was calibrated by random baseline calibrations during the survey and daily calibration checks. Baseline calibrations were conducted over points established with the HP-3808A. The baseline calibration forms are contained in the accordion folder with the survey data. Daily calibration checks were performed before and after hydro operations between Third-order horizontal control stations or at a calibration point determined by the HP-3808A. Daily correctors obtained by static calibrations agreed with baseline calibrations and were within the tolerance described by AMC Operations Order 79. Abstracts of all electronic equipment and correctors are contained in the Appendix of this report.

H. SHORELINE ✓ See EVAL Report section 2

Shoreline detail was obtained from TP-00550 west of long. 86°39'00"W. The photo-manuscript was compiled at 1:20,000 scale and photographically enlarged to 1:10,000 scale. This enlargement has a

cumulative error of 0.1 mm per 1 cm of latitude and 0.2 mm per 1 cm of longitude, which necessitated constant shifting of the sheet to transfer shoreline details. In some areas the shift was not apportioned properly and was not discovered until the soundings had been plotted on the field sheet. An attempt was made to correct some of these discrepancies, however all have not been corrected due to the time involved in erasing and replacing soundings at the HWL. It is suggested a new T-00550 be obtained at the proper scale. Shoreline east of long. 86°39'00"W was obtained from TP-00335 compiled at 1:10,000 scale. Both registered shoreline maps were from Job CM-7719.

Shoreline verification was accomplished by comparison of the mainscheme hydrography junctioning at shore, by visual inspection, and by detached position.

There were several shoreline changes that were the result of recent construction and destruction of piers and several areas show the effects of erosion. Features appearing in blue on the field sheet were copied from the photo-manuscript and are now non-existant. Features appearing in red on the field sheet are new and are not on the manuscript. Features shown in black have been verified during hydrography. Features appearing in brown on the field sheet were taken from the blowup of Chart 11385, 16th Ed., dated Aug. 85. Man-made discrepancies between the survey, TP-00550, TP-00335, and the chart are listed in Section L of this report and recommendations to resolve the differences are made.

The following are shoreline changes as a result of erosion:

-- The southern shoreline of the sound between long. 86°42'45"W and long. 86°40'27"W shows signs of slight erosion.

-- The western edge of a small island at lat. 30°24'21"N, long. 86°42'54"W has eroded.

-- An island at lat. 30°24'15"N, long. 86°41'00"W has shifted slightly south.

-- The northern edge of an island at lat. 30°24'18"N, long. 86°40'45"W has eroded slightly.

-- The northwest tip of an island at lat. 30°24'15"N, long. 86°39'12"W has erroded slightly.

-- Erosion has created a second inlet to a small bay at the northwest (east) edge of the survey at lat. 30°24'21"N, long. 86°35'21"W. In doing so, two islands were created where there had been a solid shoreline. Detached positions 1804, 1805, and 1806 mark the edge of the shoreline and the two islands created.

The shoreline appearing as red dashed lines is the apparent current shoreline.

There were twelve control stations located seaward of the shoreline; nine of which were fixed navigational aids, two were on islands, and one on a pier. These stations are described on the field sheet.

I. CROSSLINES ✓

Crosslines constitute 18.0% of the mainscheme hydrography. Crossline soundings are in excellent agreement with mainscheme hydrography. Ninety-five percent of the crossline soundings agree exactly, the remaining five percent are within plus or minus one foot.

J. JUNCTIONS ✓ see EVAL Report Section 5

This survey junctions at the western limit with survey H-10209, a 1:10,000-scale survey, run concurrently by HFP-2/3. Comparison of the junction soundings shows good agreement. Soundings at the junction agree within plus or minus one foot and depth contours can be drawn continuously. This agreement may be attributed to several factors: application of unverified actual tides to both surveys, the surveys were conducted concurrently eliminating difference due to sediment transport, and the absence of dramatic contour changes within the survey areas. Junction soundings appear on the semi-smooth field sheet in black and on the smooth field sheet in red.

K. COMPARISON WITH PRIOR SURVEYS ✓ see EVAL Report Section 6

This survey had a common area with the following two prior surveys:

Hydrographic Survey No. 5805
Dated: February to April 1935
Scale: 1:10,000

Hydrographic Survey No. 5806
Dated: January to April 1935
Scale: 1:10,000

All survey areas west of long. 86°36'30"W were common with survey No. 5805. Eighty percent of the soundings agree within ± one foot. The greatest variation between the surveys appears to be a result of dredging and channel maintenance. The present depths in the channel are generally one to three feet greater than those recorded on the prior survey with the following exceptions:

1) Twenty-nine to 26-foot soundings were observed in the channel between lat. 30°24′01"N, long. 86°37′22"W and lat. 30°24′04"N, long. 86°37′39"W. These soundings correspond to depths between seven and eleven feet on survey 5805. A similar change occurs at lat. 30°24′03"N, long. 86°37′45"W to lat. 30°24′05"N, long. 86°38′08"W where the depths of the prior survey range between 16 and 17 feet.

2) The course of the present channel has been altered significantly from the apparent course of the channel in 1935. At lat. 30°24′21"N, long. 86°42′42"W, the channel on the prior survey bent southwest to pass an island at lat. 30°24′22"N, long. 86°42′54"W to the south. The ten to 14-foot depths of the old channel are still evident on the present survey. A channel having depths of 14 to 16 feet has been dredged north of the island where depths from the prior survey were as shoal as three feet.

3) The spoil area north of the channel at lat. 30°24′05"N, long. 86°36′57" to lat. 30°24′02"N, long. 86°36′36"W has depths between ~~zero~~ 1/2 foot and ~~two~~ three-feet while corresponding soundings from the prior survey range from two to five feet.

Survey H-5806 has a common area with the present survey east of long. 86°36′36"W to the eastern limit of the survey. In general the depths from the prior survey agree within ± two feet with the soundings of the present survey.

At the northeast limit of the present survey at lat. 30°24′16"N, long. 86°35′26"W a small bay having depths of one to three feet now exists. This bay is probably man made and access is through a small bulkheaded lagoon.

Depths north of the channel east of the Brooks Bridge between lat. 30°24′04"N, long. 86°36′04"W and lat. 30°24′09"N, long. 86°35′30"W are one to five feet shoaler than survey H-5806. The greatest shoaling occurring at:

1) A shoal having depths of three feet at lat. 30°24′08"N, long. 86°35′48"W was found to have depths as shoal as ~~zero~~ 1 foot on the present survey.

2) An ~~eight~~ nine-foot sounding was observed at lat. 30°24′12"N, long. 86°35′45"W in an area having depths of 13 feet on the prior survey.

3) Thirteen-foot depths were recorded on the prior survey at lat. 30°24′10"N, long. 86°35′51"W and the present survey shows depths as shoal as ~~six~~ seven feet.

4) The present survey shows depths of ~~six~~ eight to ~~eleven~~ twelve feet at lat. 30°24′06"N, long 86°36′00"W. Survey 5806 has soundings between 12 and 13 feet in this area.

The shoaling trend evident in this area may be the result of spoil deposits while dredging in the channel. The channel south of the area described above is generally one to three feet deeper than in 1935. A lagoon was dug at lat. 30°24′02"N, long. 86°35′56"W and the channel adjacent to the mouth of the lagoon has depths as great as 27 feet. Survey 5806 has no soundings greater than eleven feet in this area. Another possible cause for the shoaling trend is sediment transport from areas to the west.

Depths in the common area west of the Brooks Bridge generally exceed those of the prior survey by one to three feet. Dredging at lat. 30°~~24′27~~23′58"N, long. 86°36′08"W has resulted in depths as great as 27 feet while the prior survey does not exceed nine feet. Likewise, soundings as great as 25 feet are observed at lat. 30°~~24′27~~23′57"N, long. 86°36′27"W with corresponding depths not exceeding nine feet on the prior survey. The only exception to the greater depths of the present survey are:

1) A seven-foot sounding at lat. 30°24′00"N, long. 86°36′05"W where the depths of survey 5806 are eleven feet.

2) ~~Zero~~ One to ~~two~~ three-foot soundings at lat. 30°24′03"N, long. 86°36′36"W previously surveyed between three and six feet.

L. COMPARISON WITH THE CHART

see Eval Report Section 7

This survey was compared as the survey progressed with the 16th. Edition of Chart 11385 dated October 1986. For the comparison, the 1:40,000-scale chart was photographically enlarged to 1:10,000 scale.

Danger to Navigation Reports were submitted to the Commander, Eighth Coast Guard District on 9 June 1986. The following dangers were located during the course of the survey:

Obstruction - A four-foot spike located in the channel of the Intracoastal Waterway immediately west of the Brooks Bridge in Fort Walton Beach, 15 feet north of the southern bridge fender at lat. 30°24′01.87"N, long. 86°36′02.74"W. A diver investigation of the spike revealed it to be piles, concrete debris and the old bridge turnstyle in ruins. A least depth of 11 feet (10 feet at MLLW) was determined by a lead line sounding. Other soundings in the vicinity ranged from 14 to 17 feet. Chart an obstruction submerged 10' at MLLW at the above position

Obstruction - The obstruction is located immediately offshore of a pair of dolphins at the offshore end of the Hurlbert Field Navy Fuel Pier at lat. 30°24′27.17"N, long. 86°42′11.64"W. A diver investigation revealed the item to be a submerged dolphin lying on the bottom in NE-SW direction, approximately 30 feet long, three feet in diameter and having a least depth of ~~10~~ 9 feet at MLLW. Chart an obstruction submerged 9.0' at MLLW at the above position.

Copies of the Dangers to Navigation Reports are included in the Appendix of this report.

An investigation of PSR 0785 was performed. The results of this investigation are appended to this report. See Final Report Section 7

A general evaluation of the quality of agreement between charted and survey soundings reveals that 95% agree within ± one foot. Contour lines throughout the survey area exhibit similar patterns. Areas where deviation occur are as follows:

1) Charted as bares, a shoal area at lat. 30°23'58"N, long. 86°36'10"W has been dredged. The present survey shows depths as great as ~~27~~ 28 feet. The hydrographer recommends that the "bares" symbol be removed and that the three-foot contour around it be altered to represent the true depths. concur

2) Charted as a small island at lat. 30°24'12"N, long. 86°37'34"W, the present survey shows depths one to ~~five~~ six feet. In addition, a wooden finger pier was constructed directly over the area. The offshore end of this pier is marked by detached position 1165. The hydrographer recommends the island symbol be removed and a pier be shown. concur

3) Charted as an island at lat. 30°24'12"N, long. 86°37'51" W, the present survey shows depths of two feet over the island. Immediately north of the charted island is a charted eight-foot sounding. The present survey shows depths between eight and 22 feet. Chart according to the Smooth Sheet.

Discrepancies occur between charted, photo-manuscript, and the survey positions and descriptions of several man-made shoreline features. The following features, listed west to east on the northern shore and east to west on the south shore of Santa Rosa Sound on TP-00550 and TP-00335 were found to be in disagreement:

(All positions are 30 degrees north latitude and 86 degrees west longitude. The degrees have been dropped from this listing. NE - No Evidence, DEL - Delete) See the attached G.P. list for positions of these features

REF No.	ITEM	POS#	CHART 11385	TP-00550	RECOMM.
1	DOLPHIN (14) MHW	211	NO	NO	DOLPHIN
2	DOLPHIN (14) MHW	212	NO	NO	DOLPHIN
3	BOHO	213	NO	NO	BOHO
4	STAND PIPE (2)	557 MHW	NO	NO	STAND PIPE
5	L-PIER	553	NO	NO	L-PIER
6	L-PIER	552	NO	NO	L-PIER
Pike 7	~~L-PIER RUINS~~	551	NO	NO	L-PIER RN
8	L-PIER	550	NO	NO	L-PIER
9	F-PIER	881	NO	NO	F-PIER
	T-PIER	NE	24/24,39/42	NO	DEL concur

REF No.	ITEM	POS#	CHART 11385	TP-00550	RECOMM.
10	PIER	1147	NO	NO	PIER
11	T-PIER	1148	NO	NO	T-PIER
12	PIER	1149	NO	NO	PIER
	PIER	NE	24/23,39/08	NO	DEL concur
13	T-PIER	1150	NO	NO	T-PIER
14	PILES (3) MHW	1151	NO	NO	PILES
15	JETTY	1152	NO	NO	JETTY
16	RAMP	1153	NO	NO	RAMP
17	PIPE (AWASH MLLW)	206	NO	NO	PIPE

	ITEM	POS	CHART 11385	TP-00335	RECOMM.
18	L-PIER	1154	NO	NO	L-PIER
19	T-PIER	1155	NO	NO	T-PIER
20	PIPE (AWASH MLLW)	1156	NO	NO	PIPE
21	*PIER	1157-1164	NO	NO	PIER
22	PIER	1165	NO	NO	PIER
23	PIER	1166	NO	NO	PIER
24	PIER	1404	NO	NO	PIER
25	T-PIER	1405	NO	NO	T-PIER
26	PIER	1406	YES	NO	PIER
	PIER	NE	24/06,36/31	NO	PIER Retain as charted
27	T-PIER	1409-1410	NO	NO	T-PIER
28	PIER	1412	NO	NO	T-PIER
29	T-PIER	1413	NO	NO	T-PIER
30	PIER	1414	NO	NO	PIER
31	L-PIER	1415	NO	NO	L-PIER
32	L-PIER	1416	NO	NO	L-PIER
33	L-PIER	1417	NO	NO	L-PIER
34	L-PIER	1418	NO	NO	L-PIER
35	PIER	1397-1398	NO	NO	PIER
36	PIER	1400	NO	NO	PIER
37	PILES (3) MHW	1401	NO	NO	PILES
38	PIER	1402	NO	NO	PIER
39	PIER	1403	NO	NO	PIER
40	PIER	1145	NO	NO	PIER
41	L-PIER	1169	NO	NO	L-PIER
42	L-PIER	1170	NO	NO	L-PIER
43	PILES (10) MHW	1171	NO	NO	PILES
44	PIER	1172	NO	NO	PIER
45	PIER	1173	NO	NO	PIER
46	L-PIER	1174	NO	NO	L-PIER
47	PIER	1175	NO	NO	PIER
48	T-PIER	1176	NO	NO	T-PIER
49	T-PIER	1177	NO	NO	T-PIER
50	T-PIER	1178	NO	NO	T-PIER
51	L-PIER RUINS	1179	NO	NO	L-PIER R
52	L-PIER	1180	NO	NO	L-PIER
53	COVERED BOAT SLIP	1181	NO	NO	COVERED BOAT SLIP

G.P. LIST

Ref. No.	Latitude (N)	Longitude (W)
1	30°24'27.55"	86°42'11.58"
2	30°24'27.51"	86°42'11.19"
3	30°24'30.58"	86°42'08.28"
4	30°24'17.17"	86°40'49.48"
5	30°24'29.30"	86°40'19.81"
6	30°24'29.45"	86°40'06.48"
7	30°24'28.80"	86°40'04.39"
8	30°24'27.37"	86°39'57.55"
9	30°24'26.49"	86°39'34.53"
10	30°24'22.57"	86°39'12.16"
11	30°24'21.67"	86°39'10.89"
12	30°24'22.39"	86°39'09.62"
13	30°24'22.52"	86°39'06.39"
14	30°24'23.21"	86°39'05.30"
15	30°24'22.95"	86°39'04.66"
16	30°24'23.23"	86°39'02.15"
17	30°24'05.39"	86°42'44.56"
18	30°24'23.06"	86°38'59.60"
19	30°24'22.97"	86°38'49.35"
20	30°24'16.32"	86°37'58.73"
21	30°24'11.63"	86°37'44.35"
22	30°24'11.20"	86°37'33.77"
23	30°24'13.35"	86°37'25.19"
24	30°24'10.65"	86°37'05.45"
25	30°24'08.60"	86°36'41.31"
26	30°24'07.89"	86°36'38.46"
27	30°24'05.26"	86°36'24.26"
28	30°24'11.06"	86°35'59.19"
29	30°24'15.22"	86°35'50.10"
30	30°24'16.73"	86°35'43.11"
31	30°24'17.36"	86°35'42.09"
32	30°24'17.45"	86°35'40.76"
33	30°24'18.39"	86°35'37.61"
34	30°24'15.89"	86°35'37.12"
35	30°23'58.25"	86°36'11.42"
36	30°23'56.36"	86°36'53.17"
37	30°23'58.31"	86°37'02.98"
38	30°23'58.33"	86°37'12.27"
39	30°23'59.01"	86°37'13.74"
40	30°23'59.15"	86°37'20.79"
41	30°23'59.27"	86°37'25.87"
42	30°24'00.90"	86°37'36.21"
43	30°24'01.80"	86°37'38.53"
44	30°24'01.86"	86°37'41.74"

45	30°24'01.70"	86°37'43.86"
46	30°24'01.72"	86°37'47.02"
47	30°24'01.89"	86°37'48.25"
48	30°24'02.64"	86°37'50.66"
49	30°24'02.05"	86°37'52.20"
50	30°24'02.02"	86°37'54.55"
51	30°24'02.22"	86°37'56.84"
52	30°24'02.01"	86°37'58.05"
53	30°24'02.10"	86°37'58.77"

*This large new boat pier (photos of which are included in the accordion folder accompanying this report) is constructed over the charted location of three piers. Photos attached to this report.

The hydrographer recommends that the present chart be superseded by the survey.

M. ADEQUACY OF SURVEY ✓ See Evaluation Report Section 9

This survey is complete and adequate to warrant its use to supersede prior surveys for charting in the common areas.

N. AIDS TO NAVIGATION ✓ See Evaluation Report Section 7

All floating aids to navigation within the area covered by H-10210 were located by detached positions. Comparison was made with the 1985 USCG Light List, Vol II with the following results:

POS#	LATITUDE (N)	LONGITUDE (W)	H-10210 <DESCRIPTION>	USCGLL
204	30°24'25.30"	86°42'54.90"	GC"63"	BC"63"
205	30°24'26.96"	86°42'53.17"	RN"62"	SAME
207	30°24'22.14"	86°42'38.93"	GC"61"	SAME
297	30°24'20.55"	86°42'09.97"	BC"57"	SAME
298	30°24'18.41"	86°42'01.15"	BC"55"	SAME
299	30°24'20.50"	86°41'50.88"	RN"54"	SAME
300	30°24'18.04"	86°41'44.29"	GC"53"	BC"53"
301	30°24'19.71"	86°41'40.60"	RN"52"	SAME
554	30°24'19.20"	86°41'10.19"	GC"49"	BC"49"
555	30°24'24.75"	86°40'56.86"	RN"48"	SAME
556	30°24'22.01"	86°40'55.86"	GC"47"	BC"47"
558	30°24'25.05"	86°40'37.95"	GC"45"	BC"45"
559	30°24'26.91"	86°40'14.29"	RN"42"	SAME
560	30°24'26.39"	86°40'02.59"	RN"40"	SAME
880	30°24'22.75"	86°39'46.13"	GC"39"	SAME
1143	30°24'02.11"	86°37'17.52"	RN"18"	SAME
1146	30°24'03.23"	86°37'25.21"	RN"20"	SAME
1168	30°24'06.52"	86°37'48.84"	RN"22"	SAME
1193	30°24'17.73"	86°39'24.84"	GC"35"	SAME
1194	30°24'13.31"	86°39'16.03"	RN"34"	SAME
1195	30°24'07.35"	86°39'15.29"	GC"31"	BC"31"
1196	30°24'00.36"	86°38'56.78"	GC"29"	BC"29"
1197	30°24'05.05"	86°38'26.63"	RN"28"	SAME
1198	30°24'06.73"	86°38'33.32"	RN"26"	SAME
1199	30°24'07.82"	86°38'19.71"	RN"24"	SAME
1200	30°24'05.40"	86°38'10.86"	GC"23"	BC"23"
1384	30°24'00.95"	86°37'05.27"	RN"16"	SAME
1391	30°24'00.45"	86°36'58.01"	RN"14"	SAME
1392	30°24'00.31"	86°36'51.12"	RN"12"	SAME
1393	30°24'01.66"	86°36'27.15"	RN"8"	SAME
1394	30°24'02.50"	86°36'21.60"	RN"6"	SAME

POS#	LATITUDE (N)	LONGITUDE (W)	H-10210 <DESCRIPTION>	USCGLL
1395	30°23'59.64"	86°36'20.11"	BC"7"	SAME
1396	30°24'06.63"	86°35'42.27"	RN"4"	SAME
1626	30°24'25.71"	86°42'23.36"	RN"58"	SAME
1661	30°24'14.96"	86°41'27.76"	GC"51"	SAME
1662	30°24'23.63"	86°40'03.58"	GC"41"	SAME

Descriptions of floating aids in the Light List (vol. 2, 1985) were compared with those of the present survey and found to be in agreement except for the green can buoys noted above that were described in the Light List as black cans. All buoys in the project area had a yellow band indicating an Intracoastal Waterway Buoy. In the sounding volumes the yellow band was erroneously described as an "orange stripe". Position comparisons could not be made because locations are not recorded in the Light List.

A comparison between the charted positions and the surveyed positions was made and it was observed that several buoys had been moved to better indicate the course of the channel.

Buoys N"4", N"6", C"7", N"8", N"12", N"14", N"16", N"20", N"22", C"23", N"24", N"26", N"28", C"29", N"34", C"39", N"40", C"41", N"42", C"47", C"49", C"55", C"57", N"58", and C"63" are within 20 meters (20 mm at survey scale). The following buoys were more than 20 meters from the charted locations in the indicated distance and direction:

BUOY	DISTANCE	Survey DIRECTION
~~C"61"~~	~~50 meters~~	~~SW~~
C"52"	75 meters	WSW SE
~~N"54"~~	~~70 meters~~	~~SW~~
~~N"52"~~	~~30 meters~~	~~SW~~
~~N"51"~~	~~50 meters~~	~~SE~~
C"45"	50 meters	NW ✓
C"31"	50 meters	NW ✓

In each situation, the surveyed location of the buoy better indicated the course of the channel. All buoys were found to serve the apparent purpose for which they were established. concur

An uncharted temporary red nun buoy marked by detached position 210 was located. The apparent purpose of this buoy is to mark the western shoal of the approach to the Hurlbert Field Fuel Pier. latitude 30°24'25.75"N, Longitude 86°42'18.23"W.

Fixed aids to navigation within the survey limits were located to Third-order, Class I standards by MOA2x1 and HFP-2/3 personnel as required in the project instructions. Fixed aids and their positions are listed on the appended NOAA Form 76-40 and should supersede the charted locations.

Santa Rosa Sound Lt. 17 shown on TP-00335 but not on Chart 11385 was searched for but not located. Detached position 1739 indicates the center of the search area. This light is not in the Light List.

The surveyed location of Santa Rosa Sound Lt. 37 is located 70 meters west of the charted position. The present location better indicates the northern edge of a shoal and it is recommended that the light be charted as surveyed. concur

The clearance of the Brooks Bridge that crosses the sound at lat. 30°24'00"N, long. 86°36'00"W was found to be correctly charted by a leadline measurement. No clearances were determined

The two overhead power cables in the survey area and the charted values were visually verified as correctly described in accordance with Hydrographic Survey Guideline No. 29.

All submerged cable crossing signs were marked by detached positions. The following discrepancies were noted:

- Cable crossing signs located at lat. 30°24'04.18"N, long. 86°41'51.35"W and lat. 30°24'23.22"N, long. 86°41'48.51"W, are located about 100 meters from an overhead cable and were marked on the south side of Santa Rosa Sound by detached position 337 and on the north by position 338. This submerged cable crossing is not indicated on Chart 11385. ✓

- A charted "Cable Area" at lat. 30°24'25"N, long. 86°39'09"W is is not marked by a sign. Both the north and the south shores of the sound were searched but no indication of a cable crossing sign was found. It is possible the sign may have been removed because of recent construction in the area. Detached positions 1148 through 1154 mark new piers built in the vicinity.

- A cable crossing sign at lat. 30°24'14.52"N, long. 86°37'17.30"W marked by detached position 1167 is not charted.

- A cable crossing sign at lat 30°23'58.80"N, long. 86°36'16.75"W marked by detached position 1144 is not indicated on the chart.

- A Cable crossing sign at lat. 30°23'57.10"N, long. 86°36'16.62"W marked by detached position 1399 is not charted.

- Detached position 1808 marks a cable crossing sign at lat. 30°23'59.59"N, long.86°35'57.65"W accurately indicated on the chart on the south side of the sound. Detached position 1807 marks the center of a search for a cable crossing sign on the north shore. Nothing was found.

A ferry crossing is charted between north and south sides of the sound at lat. 30°24'23"N, long. 86°42'24"W and lat. 30°24'00"N, long. 86°42'06"W respectively. The Navy maintains a fuel pier on the north

See Evnc Report Section 7

shore and the offshore end is marked by detached positions 211 and 212. The ferry was probably discontinued.

All landmarks within the limits of this survey were located to Third-order, Class I standards in 1985 by MOA2x1 and HFP-2/3 with the exception of:

ITEM	LAT. (N)	LONG.(W)
~~For Walton Beach RAS WFTW MST R TR WFTW 1260 KHZ~~	30°24'49.204"	86°37'39.823"
MICRO TOWER	30°24'39.14"	86°36'08.42"
TANK	30°25'13.40"	86°42'16.15"
TANK	30°24'39.34"	86°39'47.15"
RADAR DOME	30°23'48.93"	86°39'00.12"
~~TOWER MW STA ROSA I~~ Santa Rosa I. microwave Tower	30°24'01.339"	86°41'58.780"
LOOKOUT TWR	30°24'41.736"	86°42'08.222"
TANK EGLIN AFB HURLBURT Field TK 1	30°24'47.40"	86°40'03.20"
~~TANK EGLIN HURLBURT 1~~	30°24'57.571"	86°42'07.823
~~TANK FT WALT B N MUN~~ For Walton Beach N Mun Tank	30°25'09.067"	86°36'42.369"
TANK	30°25'11.38"	86°38'18.20"
TANK	30°25'13.40"	86°42'16.15"
~~TANK EGLIN HURLBURT 2~~ EGLIN AFB Hurlburt Field TK 2	30°25'19.731"	86°41'52.323"

These were verified as presently charted with their DIPFILE positions. The landmarks located to Third-order, Class I standards are listed on the appended NOAA Form 76-40 and should supersede charted locations and DIPFILE positions.

O. STATISTICS ✓

Days of Production	27
Number of Positions	1809
Nautical Miles of Mainscheme	79.4
Nautical Miles of Crossline	13.9
Nautical Miles of Development	19.5
Total Miles of Hydrography	112.8
Number of Detached Positions	126
Number of Bottom Samples	29
PSR Item Investigations	1
Diver Investigations	2
Square Miles of Hydrography	2.2
Number of Bar Checks	36
Tide Stations Installed	1
Number of TDC Cast	0

P. MISCELLANEOUS ✓

An informal current study was performed during the course of this survey. Results of the study are appended to this report.

Bottom samples obtained while conducting this survey were submitted to the Department of Paleobiology, Smithsonian Institution, Washington D.C.

A slow start on position 120, DN 066, changes the spacing of plotted soundings and places an 11-foot sounding near the center of the channel. This should be corrected when the data is smooth plotted at PMC. The spacing was corrected by hand on the field sheet. Also, a sounding was omitted on the last out of this position which has been corrected on the corrector tape and by hand on the field sheet. *Corrected during office processing.*

On DN 121 posiitons appear to be plotted with a 30 minute azimuth error. The reason for the plotter error can not be ascertained. Position 1505 appears to be inside the HWL, however it is actually at the HWL and should plot correctly when smooth plotted at PMC. These positions have not been corrected on the field sheet. *Pos. 1505 was corrected by the hydrographer by revising the range values from the Del Norte shore station.*

Q. RECOMMENDATIONS ✓

See Sections H, K, L, and N for specific recommendations.

R. AUTOMATED DATA PROCESSING

Programs used during field data acquisition and field processing of this survey are as follows:

PROGRAM	DESCRIPTION	VERSION DATE
RK201	Grid, Signal, and Lattice Plot	04/18/75
RK211	Range/Range Non-Real Time Plot	02/13/84
RK212	Visual Station Table Load	04/01/74
RK216	Range/Azimuth Non-Real Time Plot	04/24/84
RK300	Utility Computations	10/21/80
RK330	Reformat and Data Check	05/04/76
PM360	Electronic Corrector Abstract	02/02/76
RK407	Geodetic Inverse/Direct Computation	09/25/78
RK561	H/R Geodetic Calibration	12/01/82
RK562	Geodetic Calibration	09/10/74
AM602	ELINORE-Line Oriented Editor	12/08/82

S. REFERENCE TO REPORTS ✓

The descriptive reports for H-10172, H-10207, and H10209 to be submitted in 1986 and H-10168 submitted for 1985 should be referenced in conjunction with this survey.

The Horizontal Control Report for OPR-J288, Santa Rosa Sound, is in the process of being prepared and will be submitted by MOA2x1.

Coast Pilot Report, 5 June 1986, a copy is appended. *Fwd. to N/C6243*

Danger to Navigation Report, 9 June 1986, is appended to this report.

Current Report, 5 June 1986, is appended to this report. FWD TO N/CG243

Santa Rosa Sound User Evaluation Report, 10 April 1986, a copy is appended.
FWD TO N/CG243

Respectfully Submitted,

Robert Lewis

for/ Kenneth P. Peters
LTJG, NOAA
OIC, HFP-2/3

Field Tide Note

Field tide reduction of soundings were based on unverified actual heights from tide station #872-9554 Fort Walton Beach, Fort Walton, FL. All data was derived from ADR tapes and reduced to MLLW. All times of actual and applied tides are UTC.

Four tide gages were in operation during the 1985 and 1986 field season. The location and periods of operation were:

SITE	LOCATION	PERIOD IN	OUT
Santa Rosa Sound,East 872-9679	30°23.06'N 86°51.54'W	10/16/85	01/28/86
		01/28/86	05/13/86
Woodlawn Beach 872-9736	30°23.02'N 87°59.08'W	10/22/85	11/04/85
		11/04/85	05/13/86
Pensacola 872-9840	30°24.02'N 87°12.08'W	Primary Station	
Fort Walton Beach 872-9554	30°24.01'N 86°36.06'W	01/16/86	05/14/86

Santa Rosa Sound, East End

The gage and staff were installed by HFP2/3 personnel and main tained during the 1985-86 field season. The gage was set to read 10 feet higher then the staff reading, at the time of installation and the gage was operated on UTC. The gage was destroyed by a storm on 01/27/86, and was replaced on 01/28/86. The staff was not disturbed. The only significant loss of data occurred from 01/27 - 01/28/86 when the gage was destroyed. This did not affect any hydrography.

Pensacola, FL.

This installation is a primary tide station owned by NOS, but operated and maintained by Chapin and Associates, through a contract observer. No significant loss of data was reported.
Woodlawn Beach,FL.

WOODLAWN, FL.

The gage and staff were installed by HFP-2/3 personnel and maintained during the 1985-86 field season. The gage was set to read 10 feet higher then the staff reading, at the time of installation and the gage was operated on UTC. A contract observer was hired to make daily readings.

The gage, staff, and the pier on which it was located, was destroyed by a storm on 11/03/85. A new gage and staff was installed on the next pier east (approximately 50 meters) of the original location, on 11/04/85. Some loss of data occurred in November due to a gage malfunction, not reported by the contract observer. This data loss should not affect any hydrography run. No other significant loss of data occurred.

Fort Walton Beach,FL.

The gage and staff were installed by HFP-2/3 personnel and maintained during the 1985-86 field season. The gage was set to read 10 feet higher then the staff reading, at the time of installation and the gage was operated on UTC. A contract observer was hired to make daily readings.

Levels

Levels were run to the staffs installed by HFP-2/3, upon installation and removal before and after hydrographic operations. The staff at Woodlawn Beach was connected to five bench marks on 5/7/86 but the gage was not removed until 5/13/86. Additional hydro was run during this period. At removal the staff was connected to the primary bench mark. Inspection levels were run to the Pensacola staff (Station # 872-9840) on 10/24/85 by HFP-2/3 personnel. No signifcant differences in elevation between respective level runs was observed for those sites applicable.

Zoning

Zoning was not required for field reduction of soundings for this survey. Final zoning correctors will be determined by N/OMA12.

Times of Hydro

All times of hydro are 4 hours before and 4 hours after actual times of hydeography.

D.N.	FROM TIME	TO TIME	FROM AREA	TO AREA
059	142000	235300	30°24.35'	30°24.05'

			86°42.00'	86°42.30'
065	132100	003200	30°24.30' 86°42.18'	30°24.03' 86°24.15'

Times of Hydro

All times of hydro are 4 hours before and 4 hours after actual times of hydeography.

D.N.	FROM TIME	TO TIME	FROM AREA	TO AREA
066	121600	235500	30°24.06' 86°42.42'	30°24.03' 86°43.03'
069	122200	213300	30°24.06' 86°42.00'	30°24.03' 86°43.06'
073	115800	233800	30°24.33' 86°42.00'	30°24.06' 86°42.27'
076	120400	004437	30°24.33' 86°40.51'	30°24.00' 86°42.00'
077	122000	000625	30°24.30' 86°40.27'	30°24.00' 86°40.54'
078	114500	194500	30°24.30' 86°42.15'	30°24.15' 86°42.00'
083	121300	234000	30°24.03' 86°40.06'	30°24.06' 86°40.30'
084	115800	005030	30°24.30' 86°39.51'	30°24.00' 86°40.24'
085	121500	231400	30°24.18' 86°39.28'	30°24.12' 86°40.00'
086	121100	233500	30°24.02' 86°41.05'	30°24.15' 86°41.37'
087	114500	001730	30°24.12' 86°39.27'	30°24.03' 86°38.12'
090	120200	234500	30°24.30' 86°40.00'	30°24.00' 86°37.55'
093	120600	002400	30°24.15' 86°37.45'	30°24.25' 86°39.30'
098	120100	235230	30°23.45'	30°24.30'

			86°39.15'	86°38.30'
100	114700	003700	30°24.30' 86°39.36'	30°23.48' 86°37.09'
104	125100	005900	30°24.30' 86°39.36'	30°23.48' 86°37.09'
115	115300	000200	30°24.30' 86°39.45'	30°24.15' 86°36.36'
118	111200	233830	30°24.15' 86°30.45'	30°24.30' 86°35.00'
120	110500	221500	30°24.30' 86°37.30'	30°23.30' 86°35.00'
121	114200	235700	30°24.30' 86°37.00'	30°23.30' 86°35.00'
122	122300	223800	30°24.30' 86°37.00'	30°23.30' 86°35.00'
125	122500	235100	30°24.09' 86°43.00'	30°24.30' 86°41.30'
127	105500	231400	30°24.30' 86°41.30'	30°24.00' 86°37.30'
129	104400	232500	30°24.30' 86°40.00'	30°23.45' 86°35.00'
132	113000	193000	30°24.00' 86°36.00'	30°24.30' 86°36.30'

SIGNAL TAPE LISTING

SANTA ROSA SOUND, FLORIDA

OPR-288 H-10210 HFP-10-2-86

159	1	30	24	28953	086	42	38287	250	0000	000000	= COLONEL	1985
160	4	30	24	12010	086	41	54748	250	0000	000000	= TIDAL	1985
161	6	30	24	21851	086	42	17005	139	0000	000000	= S.R.S. LT.59	1985
162	1	30	24	21652	086	42	00541	139	0000	000000	= S.R.S. LT.56	1985
163	2	30	24	23279	086	41	22902	250	0000	000000	= SHELL	1985
164	0	30	24	19335	086	41	30292	139	0000	000000	= S.R.S. LT.50	1985
165	4	30	24	11054	086	41	26350	250	0000	000000	= FLAT	1985
166	5	30	24	25086	086	40	31982	139	0000	000000	= S.R.S. LT.43	1985
167	5	30	24	21622	086	39	33137	139	0000	000000	= S.R.S. LT.37	1985
168	2	30	24	23186	086	39	18410	250	0000	000000	= ROGERS USE 25	1985
170	1	30	24	04247	086	38	57381	139	0000	000000	= S.R.S. LT.30	1985
171	1	30	24	15096	086	38	01882	250	0000	000000	= HOJO	1985
172	6	30	23	57007	086	37	53605	139	0000	000000	= TANK WEST	1985
173	1	30	24	00618	086	36	42405	139	0000	000000	= S.R.S. LT.10	1985
174	6	30	23	58792	086	35	59269	250	0000	000000	= JOHN T	1985
175	6	30	23	48495	086	35	23023	139	0000	000000	= TANK EAST	1985
176	2	30	24	15941	086	35	24572	250	0000	000000	= CHOCT	1985

All signals are Third Order, Class 1, Established by MOA 2x1 and HFP 2/3

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)

[x] TO BE CHARTED / [ ] TO BE REVISED / [ ] TO BE DELETED	REPORTING UNIT (Field Party, Ship or Office)	STATE	LOCALITY	DATE
	HFP-3	Florida	Gulf of Mexico Santa Rosa Sound	6/86

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
OPR-J288		H-10210	North American 1927

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	Santa Rosa Sound Lt. "59" (1985 USCGLL #6002) Sig. 161	30 24	21.859	86 42	17.010	All positions are unadjusted field posits.	Nov. 1985 F-3-6-L	11385
Light	Santa Rosa Sound Lt. "56" (1985 USCGLL #6001) Sig. 162	30 24	21.661	86 42	00.546		Nov. 1985 F-3-6-L	11385
Light	Santa Rosa Sound Lt. "50" (1985 USCGLL #6000) Sig. 164	30 24	19.315	86 41	30.291		Nov. 1985 F-3-6-L	11385
Light	Santa Rosa Sound Lt. "43" (1985 USCGLL #5999) Sig. 166	30 24	25.068	86 40	31.981		Nov. 1985 F-3-6-L	11385
Light	Santa Rosa Sound Lt. "37" (1985 USCGLL #5998) Sig. 167	30 24	21.619	86 39	33.137		Nov. 1985 F-3-6-L	11385
Light	Santa Rosa Sound Lt. "32" (1985 USCGLL #5997	30 24	07.819	86 39	09.610		April 1986 F-3-6-L	11385
Light	Santa Rosa Sound Lt. "30" (1985 USCGLL #5996) Sig. 170	30 24	04.247	86 38	57.381		Nov. 1985 F-3-6-L	11385
Light	Santa Rosa Sound Lt. "21" (1985 USCGLL #5995)	30 24	03.788	86 37	43.075		April 1986 F-3-6-L	11385
Light	Santa Rosa Sound Lt. "10" (1985 USCG #5994) Sig. 173	30 24	00.641	86 36	42.400		Nov. 1985 F-3-6-L	11385
Light	Santa Rosa Sound Lt. "60" (USCGLL #6003)	30 24	25.334	86 42	38.738		Nov. 1985 F-3-6-L	11385

L-8561(2C)

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RESPONSIBLE PERSONNEL

TYPE OF ACTION	NAME	ORIGINATOR
OBJECTS INSPECTED FROM SEAWARD	Kenneth P. Peters, LTJG.,NOAA	☐ PHOTO FIELD PARTY ☒ HYDROGRAPHIC PARTY ☐ GEODETIC PARTY ☐ OTHER *(Specify)*
POSITIONS DETERMINED AND/OR VERIFIED	Kenneth P. Peters, LTJG.,NOAA	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.

☆ U.S.GPO:1975-0-665-080/1155

NOAA FORM 76-40
(8-74)

Replaces C&GS Form 567.

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

NON-FLOATING 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)

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

REPORTING UNIT (Field Party, Ship or Office): HFP-3

STATE: Florida

LOCALITY: Gulf of Mexico
Santa Rosa Sound

DATE: 6/86

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

OPR PROJECT NO.: OPR-J288

JOB NUMBER:

SURVEY NUMBER: H-10210

DATUM: North American 1927

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
Tank	Okaloosa Co. West Tank Sig. 172	30 23	57.019	86 37	53.598	All posits. are unadjusted field posits.	Nov. 1985 F-3-6-L	11385
Tank	Okaloosa Co. East Tank Sig. 175	30 23	48.529	86 35	23.015		Nov. 1985 F-3-6-L	11385
Tank	Fort Walton Beach S. Mun. Tank	30 24	20.602	86 36	39.361		April 1985 F-3-6-L	11385
	Elevation and height above ground ~~will be obtained and a corrected~~ form will be submitted.							
	L-8566							

58

RESPONSIBLE PERSONNEL

TYPE OF ACTION	NAME	ORIGINATOR
OBJECTS INSPECTED FROM SEAWARD	Kenneth P. Peters, LTJG.,NOAA	☐ PHOTO FIELD PARTY ☒ HYDROGRAPHIC PARTY ☐ GEODETIC PARTY ☐ OTHER *(Specify)*
POSITIONS DETERMINED AND/OR VERIFIED	Kenneth P. Peters, LTJG.,NOAA	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.

☆ U.S.GPO:1975-0-665-080/1155

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SURVEY
Atlantic Marine Center
June 9, 1986

To: Commander, Eighth U.S. Coast Guard District
New Orleans, LA

From: LT(jg) Kenneth P. Peters
Officer-in-Charge, HFP-2/3

Subject: Danger to Navigation Notice for inclusion in the Local Notice to Mariners, for Chart 11385, 16th Ed., Aug/85, Santa Rosa Sound, FL.

While conducting a basic hydrographic survey of the Santa Rosa Sound in the Fort Walton Beach, FL area, an obstruction waw found and should be charted on Chart 11385. The obstruction is a four foot spike located in the channel immediately west of the Brooks Field Bridge, fifteen feet north of the southern bridge fender in Fort Walton Beach at Lat 30°24'01.87"N, Long 86°36'02.74"W. A diver investigation of the item revealed it to be piles, concrete debris, and the old bridge turnsyle in ruins. A least depth of ~~12~~ 10 ft. at Mean Lower Low Water (MLLW) was determined by a lead line sounding. Other soundings in the vicinity range from 14 to 17 ft.

This danger to navigation was located during hydrography controlled by Del Norte Electronic system and a Nikon NT2D,20" theodolite from Third Order, Class I, control stations. Depths were reduced to MLLW using unverified actual tide hights from Tide Station No. 872-9554, Fort Walton Beach, FL.

A chart section from Chart 11385, 16th Ed., Aug/85, 1:40,000 scale and a blow up to 1:10,000 of the obstruction area showing the location of the shoal is attached. This information was relayed via telephone to the LNM office on June 9, 1986.

****
* THIS IS ADVANCE INFORMATION *
*
* SUBJECT TO OFFICE VERIFICATION *
****

Note: least depth should be 10 ft. MLLW
Correction was made by phone to USCGD8 7/23/86

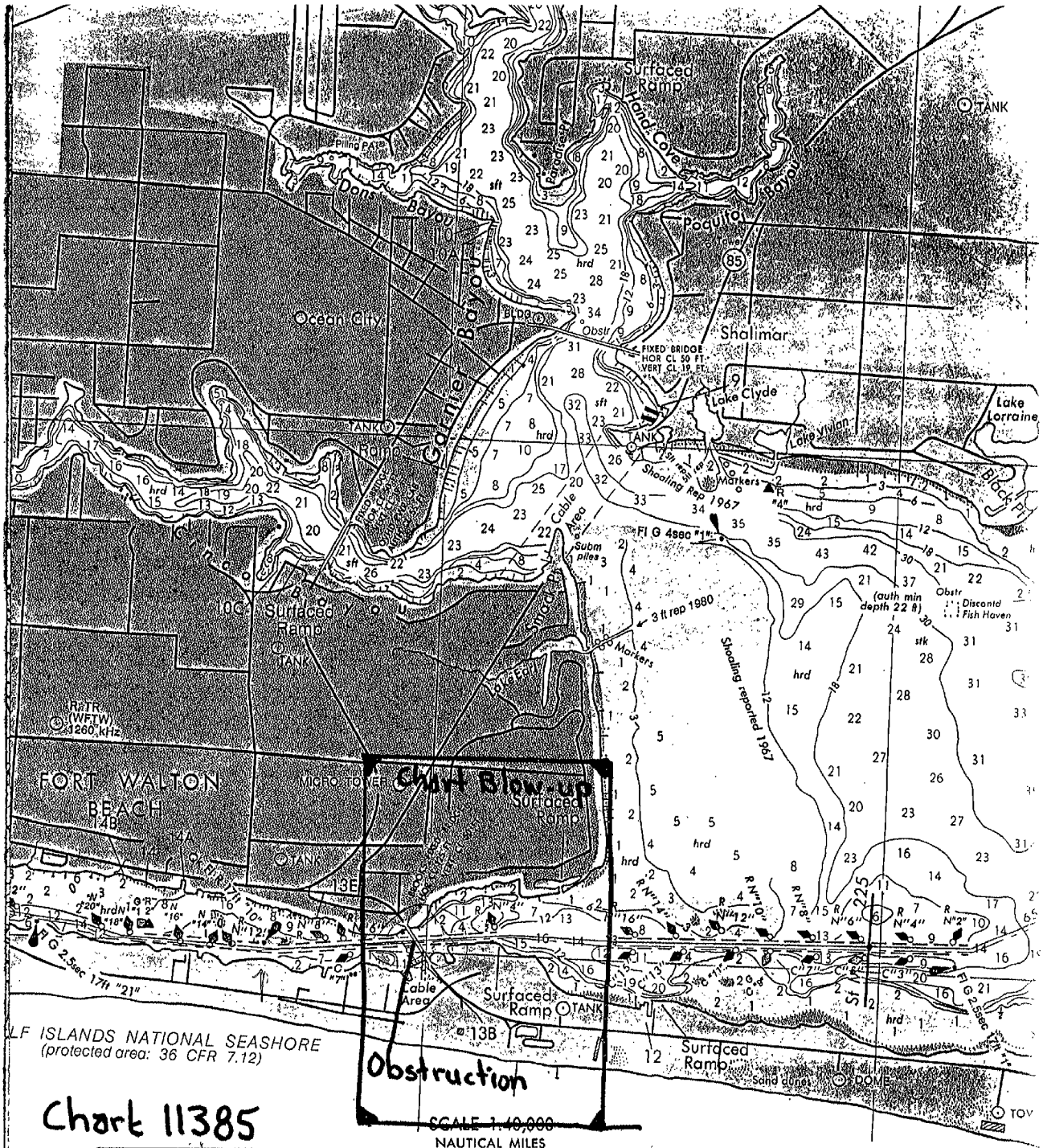


Chart 11385

CAUTION

Only marine radiobeacons have been calibrated for surface use. Limitations on the use of certain other radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and Defense Mapping Agency Hydrographic/Topographic Center Publication 117 (A & B).

Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.

Station positions are shown thus:

⊙(Accurate location) o(Approximate location)

CAUTION

Small craft operators are warned to beware of severe water turbulence caused by large vessels traversing narrow waterways.

CAUTION

Small craft should stay clear of large commercial and government vessels even if small craft have the right-of-way.

All craft should avoid areas where the skin divers flag, a red square with a diagonal

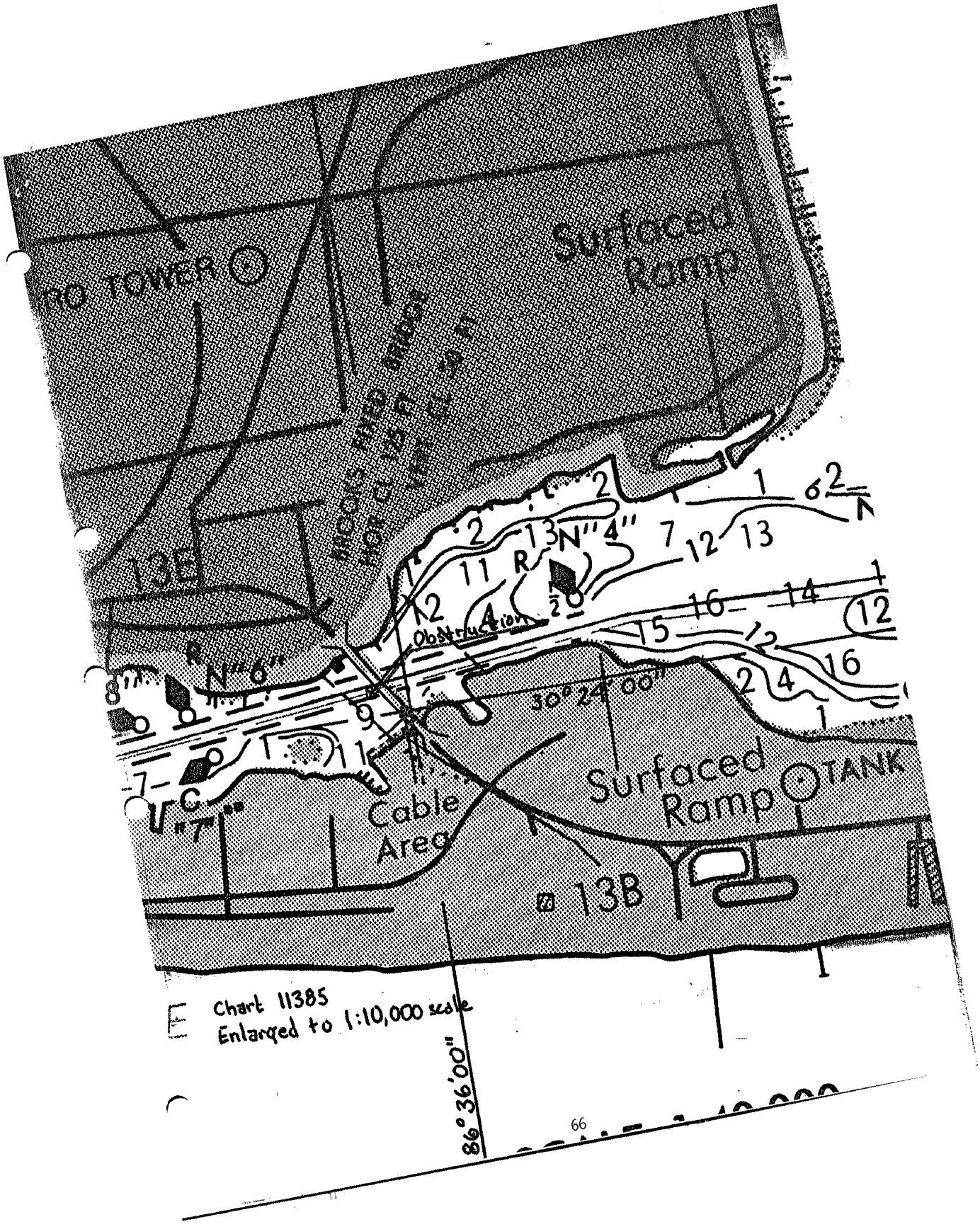


Chart 11385
Enlarged to 1:10,000 scale

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SURVEY
June 12, 1986

To: Commander, Eighth U.S.Coast Guard Distrrict
New Orleans, LA

From: LT(jg) Kenneth P. Peters
Officer-in-Charge, HFP-2/3

Subject: Dandger to Navigation Notice for inclusion in the Local Notic to Mariners, for Chart 11385, 16th Ed., Aug/85, Santa Rosa Sound, FL.

An obstruction was found during basic hydrographic operations in Santa Rosa Sound. The obstruction is located immediatly off-shore of a pair of dolphins at the offshore end of Hurlbert Field Navy Fuel Pier at Lat. 30°24'27.17"N, Long. 86°42'11.64"W. A diver investigation revealed the item to bea submerged dolphin lying on the bottom in a NE-SW direction, approximately 30 feet long, three feet in diameter and having a least depth of 10 feet.

This danger to navigation was located with hydrography controlled by Del Norte Electronic Positioning System and a Nikon NT2D, 20" Theodolite from Third Order, Class I, control stations. Depths were determined by lead line soundings and reduced to Mean Lower Low Water using unverified actual tide heights obtained from Station No. 872-9554, Fort Walton Beach, Fl.

This information was reported by telephone to the LNM office on 12 June 1986.

NOTE: This is advance information subject to office verification.

CHART # 11385 ITEM # 0785

ITEM DESCRIPTION: Obstruction. USPS reports 8 piles on Graphic Only

SOURCE: Unknown

INVESTIGATION DATE: 3 April 1986 (JD93) TIME: 172300 UTC VESSEL: NOAA Skiff 0333

OIC: Kenneth P. Peters OIC HFP-2/3

REFERENCES:

Position No: 905 Volume 4 pg. 20

CORRECTORS APPLIED:

☐ Velocity ☐ TRA Correctors

☐ Predicted or ☐ Actual Tide Correctors

GEODETIC POSITION:

	Latutide	Longitude
Charted:	30° 24 12.00	086° 38' 02.00"
Observed:	30° 24' 12.99	086° 38' 02.71"

POSITION DETERMINED BY: R/Az

METHOD OF ITEM INVESTIGATION: Visual Search in water having depths less than five feet with water visibility to eight feet. One eight inch diameter wood pile in 4.7 feet of water (not corrected for tides) baring 12 feet was located. A search in the area did not locate any additional piles. A photograph of the pile was taken and is included with the discriptive report accompanying this survey.

CHARTING RECOMMENDATIONS: Chart as a pile. concur
Delete pile charted at lat. 30/24/14, long. 86/38/03;
Revise pile charted at lat. 30/24/12, long 86/38/03 to Submerged;
Add pile at lat. 30/24/12, long. 86/38/02

Compilation Use Only

CHART APPLIED AS

APPROVAL SHEET

For

SURVEY H-10210 (HFP-10-2-86)

The hydrographic records transmitted with this survey are complete and adequate to supersede prior surveys for charting with no additional field work recommended.

No direct supervision was given by me during the field work.

Approved and forwarded.

Kenneth W. Perrin
LCDR, NOAA
Chief, Hydrographic Field Parties Section

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

TIDE NOTE FOR HYDROGRAPHIC SHEET

DATE: February 25, 1987

Marine Center: Pacific

OPR: J288

Hydrographic Sheet: H-10210

Locality: Santa Rosa Sound, Florida

Time Period: February 28 - May 12, 1986

Tide Station Used: 872-9554 Fort Walton Beach, FL
872-9679 East End, Santa Rosa Sound, FL

Plane of Reference (Mean Lower Low Water): 872-9554 = 2.76 Ft.
872-9679 = 3.61 Ft.

Height of Mean High Water Above Plane of Reference: 872-9554 = 0.5 Ft.
872-9679 = 1.3 Ft.

Remarks: Recommended Zoning:

This supercedes tide note dated July 21, 1986

1. Use Multi-Gage Zoning

Chief, Tidal Datum Quality
Assurance Section

NOAA FORM 76-155
(11-72)

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

GEOGRAPHIC NAMES

SURVEY NUMBER

H-10210

Name on Survey
SANTA ROSA SOUND
FLORIDA

	A ON CHART NO. 11385	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 U.S. LIGHT LIST	K Manuscripts mp	
FLORIDA (TITLE)										1
FORT WALTON BEACH	X								00335	2
GULF OF MEXICO	X								00335 00550	3
HARRIS (TITLE)	X								00550	4
KOHLER BAYOU	X									5
LASATER POINT	X								0	6
MARY ESTHER	X								00550	7
PIRATE COVE	X								00550	8
SANTA ROSA ISLAND	X								00335 00550	9
SANTA ROSA SOUND	X								00335 00550	10
THE NARROWS	X									11
										12
										13
										14
										15
										16
										17
										18
					Approved:					19
										20
					Charles E. Harrington					21
					Chief Geographer – NOS CG2 x5					22
					JAN 7 1987					23
										24
										25

NOAA FORM 76-155 SUPERSEDES C&GS 197

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
Pacific Marine Center
1801 Fairview Avenue East
Seattle, Washington 98102-3767

September 4, 1986 N/MOP211B/JLS

TO: N/MOA - Wesley V. Hull

FROM: N/MOP - Robert L. Sandquist

SUBJECT: Preprocessing Examination of H-10210, Florida,
Santa Rosa Sound, Fort Walton Beach to one mile East of Harris

Hydrographic survey H-10210 has been reviewed in accordance with Hydrographic Survey Guideline No. 15. The Preprocessing Examination Critique for this survey is attached. Survey H-10210 is accepted for Pacific Marine Center processing.

The Preprocessing Examination Critique is designed to provide information which will be useful to the Chief-of-Party for maintaining the quality of future hydrographic surveys. Comments from the Chief-of-Party on specific critique items are welcome.

cc: N/MOP21x2
N/MOP211
N/CG2
N/MOA232
N/MOA233

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
Pacific Marine Center
Nautical Chart Branch
7600 Sand Point Way NE
BIN C15700
Seattle, Washington 98115-0070

September 3, 1986 N/MOP211B/JLS

TO: N/MOP - Robert L. Sandquist

FROM: N/MOP21 - Thomas W. Richards

SUBJECT: Preprocessing Examination for H-10210

I. SURVEY INFORMATION

A. Field No. HFP-10-2-86 Registry No. H-10210

B. State: Florida

General Locality: Santa Rosa Sound
Sublocality: Fort Walton Beach to one mile East of Harris

C. Project Instructions: OPR-J288-HFP-85

Original dated: September 11, 1984

Change No. 1 dated: October 31, 1984
Change No. 2 dated: October 8, 1985
Change No. 3 dated: December 11, 1985

D. Date:

Field Work Commenced: February 28, 1986

Field Work Completed: May 12, 1986

plus six weeks = June 24, 1986

Data received at Marine Center: August 11, 1986

plus one month = September 11, 1986

Examination critique transmitted to field: September 8, 1986

Target for completion of Marine Center processing: April 8, 1987

II. PREPROCESSING EXAMINATION CRITIQUE

Hydrographic survey H-10210 was performed by the personnel of the Atlantic Hydrographic Field Party (HFP), LCDR Kenneth W. Perrin, Office-in-Charge (OIC).

A. Danger to Navigation Reports

Two dangers to navigation were reported by HFP for the area covered by H-10210. No additional dangers were identified during the Preprocessing Examination.

B. Compliance with Instructions

This survey meets the requirements for a basic hydrographic survey.

C. Final Field Sheets

The field unit should put priority on resolving all discrepancies between shoreline detail found during the survey operations and the graphic detail shown on the photo-manuscript (Attachment A and B). Also, detached positions on inshore ends of new piers would improve accuracy of the plotted data (HSG 17).

D. Descriptive Report

The Descriptive Report was very well written and very informative concerning the survey work and comparison activities.

J. Positioning Control

Upon completion of the survey spooling and analyzing the positional data, the Harris computer determined that the LOP intersection angles were all of good quality.

N. Survey Acceptance

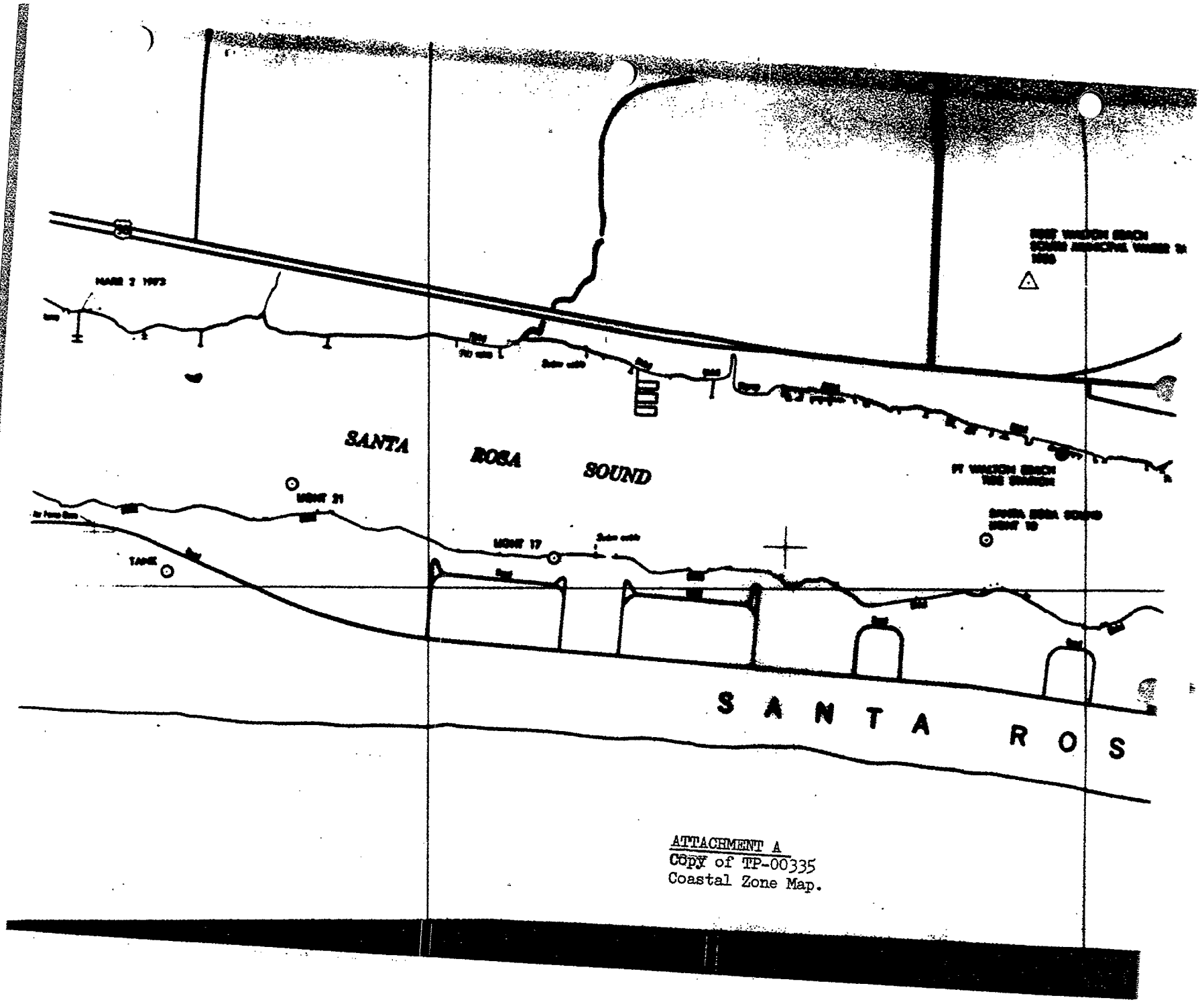
The Preprocessing Examination for H-10210 was conducted under time constraints of HSG 15. All comments contained herein are based on a spot check of the data, and it is possible that some problem areas have not been addressed.

Except for the items noted in the critique, H-10210 is in compliance with the project instructions. I recommend that H-10210 be accepted for Nautical Chart Branch processing.

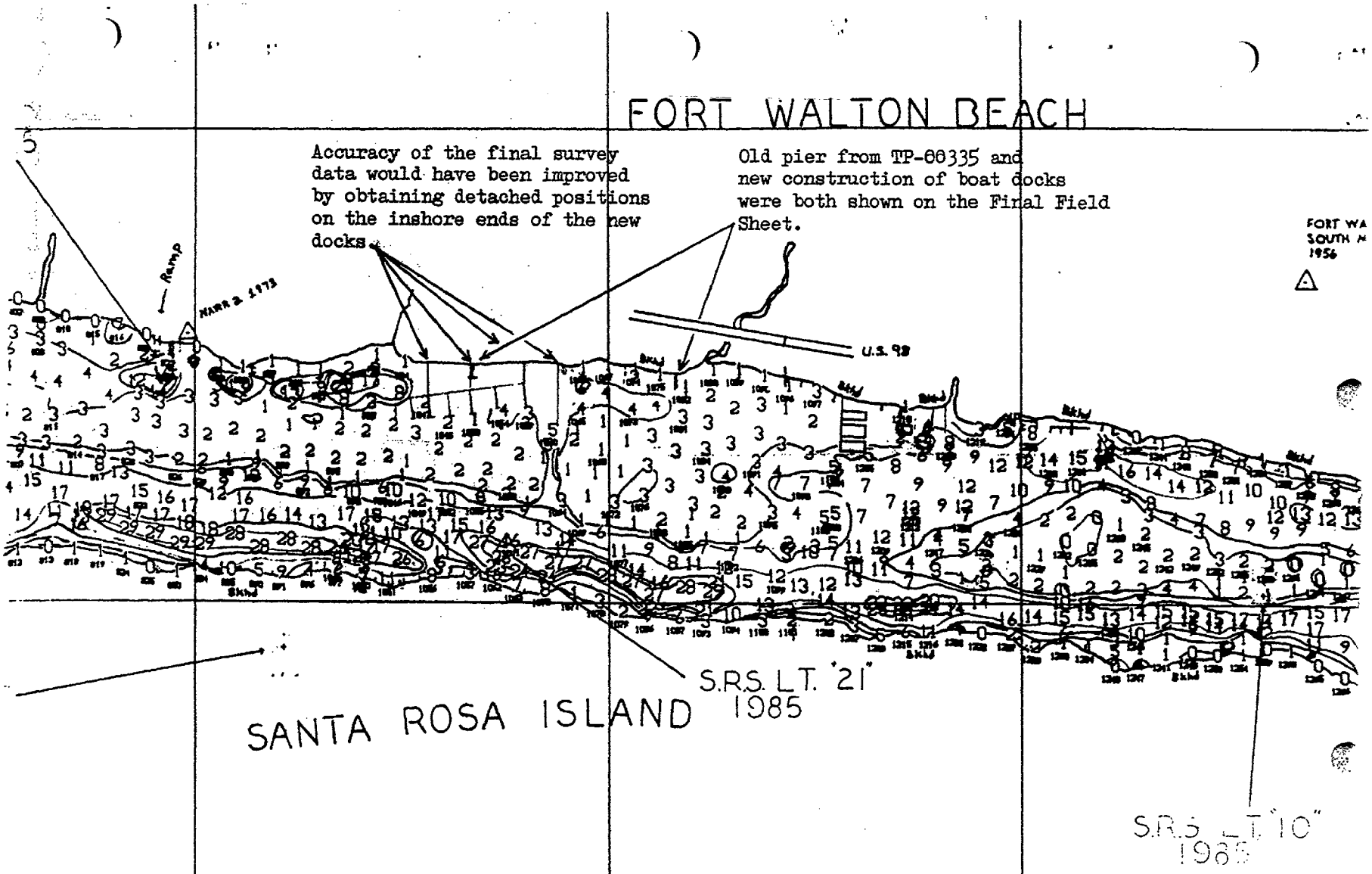
Prepared by:

James L Stringham

James L. Stringham
Supervisory Cartographic Technician



ATTACHMENT A
Copy of TP-00335
Coastal Zone Map.



ATTACHMENT B

Copy of H-10210 Final Field Sheet.

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

U.S. DEPARTMENT OF COMMERCE

HYDROGRAPHIC SURVEY STATISTICS

REGISTRY NUMBER: H-10210

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

RECORD DESCRIPTION	AMOUNT	RECORD DESCRIPTION	AMOUNT
SMOOTH SHEET	1	SMOOTH OVERLAYS: POS., ARC, EXCESS	9
DESCRIPTIVE REPORT	1	FIELD SHEETS AND OTHER OVERLAYS	2

DESCRIPTION	DEPTH/POS RECORDS	HORIZ. CONT. RECORDS	SONAR-GRAMS	PRINTOUTS	ABSTRACTS/ SOURCE DOCUMENTS	
ACCORDION FILES	1					
ENVELOPES						
VOLUMES	6					
CAHIERS						
BOXES						

SHORELINE DATA

SHORELINE MAPS (List): 2-TP-00550, 1-TP-00335

PHOTOBATHYMETRIC MAPS (List):

NOTES TO THE HYDROGRAPHER (List):

SPECIAL REPORTS (List):

NAUTICAL CHARTS (List): chart enlargement 11385

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			1809
POSITIONS REVISED			
SOUNDINGS REVISED			
CONTROL STATIONS REVISED			
	TIME-HOURS		
	VERIFICATION	*EVALUATION*	*TOTALS*
PRE-PROCESSING EXAMINATION			
VERIFICATION OF CONTROL			
VERIFICATION OF POSITIONS	93.5		93.5
VERIFICATION OF SOUNDINGS	358.5		358.5
VERIFICATION OF JUNCTIONS			
APPLICATION OF PHOTOBATHYMETRY			
SHORELINE APPLICATION/VERIFICATION			
COMPILATION OF SMOOTH SHEET	108.0		108.0
COMPARISON WITH PRIOR SURVEYS AND CHARTS		12.0	12.0
EVALUATION OF SIDE SCAN SONAR RECORDS			
EVALUATION OF WIRE DRAGS AND SWEEPS			
EVALUATION REPORT		31.0	31.0
GEOGRAPHIC NAMES			
OTHER* Digitizing			12.0
*USE OTHER SIDE OF FORM FOR REMARKS — TOTALS	560.0	43.0	615

Pre-processing Examination by J. Wilder	*Beginning Date*		*Ending Date* 9/4/86
Verification of Field Data by R.A.Shipley, T.O.Jones	*Time (Hours)* 560.0		*Ending Date* 6/2/87
Verification Check by J.Stringham, B.Olmstead	*Time (Hours)* 68.0		*Ending Date* 6/12/87
Evaluation and Analysis by C.R.Davies	*Time (Hours)* 43.0		*Ending Date* 6/18/87
Inspection by D.Hill	*Time (Hours)* 4.0		*Ending Date* 6/30/87

☆ U.S. GOVT. PRINTING OFFICE 1983: 764-006/6061

PACIFIC MARINE CENTER
EVALUATION REPORT
H-10210

1. INTRODUCTION

H-10210 was accomplished by the NOAA Hydrographic Field Party Number 2 and 3 in accordance with the following project instructions:

OPR-J288-HFP-85
Change Number 1, dated October 31, 1984
Change Number 2, dated October 8, 1985
Change Number 3, dated December 11, 1985

H-10210 is a basic hydrographic survey of Santa Rosa Sound, Florida and its purpose is to obtain modern hydrographic survey data for revision of existing nautical charts of Santa Rosa Sound, Florida. The survey includes the sound between longitudes 86°35'15"W and 86°43'07"W. The Intracoastal Waterway extends east-west through the survey area. The north shore is characterized by numerous cultural features, privately maintained piers, while the south shore is still relatively undeveloped, being part of the Gulf Islands National Seashore. The maximum depth in the survey area is 30 feet in the dredged channel. The bottom is generally composed of sand.

Field tide reduction of soundings was based on unverified actual heights from the Fort Walton Beach gage. Tide correctors used for the final reduction of soundings are based on approved hourly heights from gage 872-9554, Fort Walton Beach, and gage 872-9679, East End. Correctors were generated utilizing a technique called "multi-gaged zoning". This was used because it interpolates the tide correctors from the two gages based on the geographic position of the sounding. This zoning technique is used in long narrow bodies of water where the high water range and times of high and low waters are very different and conventional zoning produces an irregular transition between tidal extremes.

The field sheet parameters have been revised to center the hydrography on the smooth sheet and to change the projection to polyconic. The field values for electronic control, velocity and TRA corrections have been checked during office processing and found to be adequate. The electronic control correctors used in this survey were based on the daily system calibration checks. The revised data are listed in the smooth position/sounding printout.

A digital file for this survey has been generated and includes categories of information required to comply with N/CG2 Hydrographic Survey Guideline No. 23, Completion of Digital Hydrographic Surveys, September 7, 1983. Certain descriptive information, however, may not be included 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

Horizontal control and hydrographic positioning are adequately discussed in sections F and G of the hydrographer's report.

Positions of horizontal control stations used during hydrography are either published or field values based on the North American 1927 Datum. The computation of positions accomplished during office processing utilized these same values. The smooth sheet and accompanying overlays have been annotated with an NA 1983 Datum adjustment tick. Geographic positions based on the NA 1983 Datum may be plotted on the smooth sheet utilizing the NA 1927 Datum projection by applying the following corrections:

Latitude -0.714 seconds (22.1 meters)
Longitude 0.165 seconds (-3.4 meters)

The year of establishment of control stations shown on the smooth sheet originates with the hydrographer's signal list and is subject to change pending certification of the data by NGS.

Applicable shoreline manuscripts are TP-00335 and TP-00550. These are copies of registered National Ocean Survey/Florida-Okaloosa County Federal-State Cooperative Mapping Series and originate from photography dated January 1977, and January, February, April 1978. Horizontal control, landmarks, aids to navigation and other features were verified by field edit in 1978 and 1979. The photographic enlargements supplied by headquarters contained slight distortions as mentioned by the hydrographer. These distortions were compensated for by shifting the enlargements as required to bring the latitude and longitude grids into agreement.

Numerous shoreline changes were observed in the field and are drawn in red on the smooth sheet. Many of these changes were transferred to the smooth sheet from the final field sheet without supporting positional information. These approximate shoreline delineations are in the vicinity of the following:

Latitude (N)	Longitude (W)
30°24'21"	86°42'55"
30°24'06"	86°42'38"
30°24'17"	86°42'17"
30°24'04"	86°41'52"
30°24'03"	86°41'37"
30°24'03"	86°40'50"
30°24'07"	86°40'33"
30°24'20"	86°35'20"
30°24'15"	86°40'59"
30°24'16"	86°40'53"
30°24'19"	86°40'43"
30°24'15"	86°39'12"

Although these latter shoreline revisions are portrayed as approximate they are still considered adequate to supersede the common photogrammetrically delineated shoreline due to the age of the maps.

The orientation of the piers from a fix at one end back to the shoreline was obtained directly from the final field sheet without supporting positional information.

3. HYDROGRAPHY

Hydrography within the limits of the sheet is adequate to:

a. Delineate the bottom configuration, determine least depths, and to draw the standard depth curves.
b. Reveal that there are no significant discrepancies or anomalies requiring further investigation.
c. Show that the survey had been properly controlled and soundings are plotted correctly.

4. CONDITION OF SURVEY

The hydrographic records and reports are adequate and conform to the requirements of the Hydrographic Manual, 4th Edition, revised through Change No. 3, the Hydrographic Survey Guidelines and the AMC OPORDERS, except as noted in the Preprocessing Examination Report, dated September 3, 1986 (copy attached) and as follows:

a. In several areas, soundings had to be inserted into the digital record to better portray the bottom topography. (Hydrographic Manual 4.5.6 and 4.9.8)

b. Two aids to navigation were not mentioned in the Hydrographer's report, see section 7 of this report. All aids to navigation located during the survey that are not shown in the Light List should be listed and have a statement on their apparent purpose, whether or not and by whom the aids are maintained, and whether or not such maintenance is seasonal, if known. (Hydrographic Manual 5.3.4.N)

5. JUNCTIONS

H-10210 junctions with H-10209 (1986) to the west. Soundings were transferred from H-10209 to justify depth curves and to portray shoaler information. The junction has been adequately effected.

There are no contemporary surveys to the east, however, a comparison with charted depths reveals good agreement with the present survey.

6. COMPARISON WITH PRIOR SURVEYS

H-5805 (1935) 1:10,000
H-5806 (1935) 1:10,000

The present survey soundings compare within 1 to 2 feet of the prior soundings. There are, however, some areas where significant changes have been noted. These are adequately described in section K of the hydrographer's report.

There are no pre-survey review/AWOIS items originating from these prior surveys applicable to this survey.

H-10210 is adequate to supersede the prior surveys within their common areas.

7. COMPARISON WITH CHART

Chart 11385, 16th Edition, dated August 16, 1985; scale 1:40,000

a. Hydrography - Most charted information originates from the prior surveys discussed in Section 6 of this report. Other soundings and charted features originate from miscellaneous sources. For more details see section L of the hydrographer's report.

The following piers were not investigated during this survey. These features were not discussed in the hydrographer's report and therefore their present disposition is unknown. It is recommended that these features be retained as charted.

Charted Feature	Latitude (N)	Longitude (W)
Pier	30°24'07"	86°36'26"
Pier	30°23'56"	86°36'31"
Pier	30°23'55"	86°36'35"
Pier	30°24'15"	86°37'59"
Pier	30°24'25"	86°39'24"
Pier	30°24'28"	86°40'41"

Two islets charted in the vicinity of latitude 30°24'12"N, longitude 86°40'01"W, originating from unknown sources, were not found. The survey shows depths of two feet in the area. It is recommended that the charted islets be deleted and the area be charted according to the present survey.

Shoaling was reported in 1983 in the vicinity of latitude 30°24'16"N, longitude 86°41'52"W. Hydrography was run in the area and depths range from 2 to 4 feet at MLLW. Chart according to the smooth sheet.

Shoaling was reported in 1983 in the vicinity of latitude 30°24'14"N. longitude 86°42'12"W. Hydrography was run in the area and depths range from 2 to 3 feet at MLLW. Chart according to the smooth sheet.

One AWOIS item originating from CL1402/70 is adequately discussed in the hydrographer's report supplemented as follows:

AWOIS item 00785, reported piles at latitude 30°24'12.0"N, longitude 86°38'02.0"W was investigated by the hydrographer. One eight-inch diameter wood pile uncovered 12 feet at MHW in surrounding depths of 5 feet was located at latitude 30°24'13.01"N, longitude 86°38'02.70"W. Since the required bottom drag was not performed the presence of submerged piles has not been disproven. It is recommended that the located pile be charted; the pile charted at latitude 30°24'14"N, longitude 86°38'03"W, be deleted; and the pile charted at latitude 30°24'12"N, longitude 86°38'03"W, be charted as submerged. Additional investigation will be required to satisfy the AWOIS requirement.

Geographic names appearing on the smooth sheet have been approved by the Chief Geographer and are plotted in accordance with this chart.

The label, "Ferry" charted at latitude 30°24'33"N, longitude 86°42'06"W, should be revised to latitude 30°24'25"N, longitude 86°41'55"W.

Two Danger to Navigation Reports (copies appended) concerning two obstructions which were found during the survey were sent by the hydrographer to the Eighth Coast Guard District in New Orleans, Louisiana. No additional dangers were identified during office processing.

H-10210 is adequate to supersede the presently charted hydrography within the common area.

b. Controlling Depths - Except for the obstruction noted in the attached Danger to Navigation report, the data obtained during the survey are consistent with the charted project depth of 12 feet. Mariners are presently advised through a charted note that shoaling may occur in some of these areas between maintenance dredging operations. This note should be retained.

c. Aids to Navigation - There are 13 fixed and 37 floating aids within the limits of this survey. The charted positions and descriptions have been verified. The aids adequately serve their intended purpose.

Two additional aids to navigation, private daybeacons, are recommended for charting:

	Latitude (N)	Longitude (W)
Hurlburt AF Base Marina Daybeacon 1 (green)	30°24'28.39"	86°42'35.18"
Hurlburt AF Base Marina Daybeacon 2 (red)	30°24'28.29"	86°42'34.24"

? on chart? no

8. COMPLIANCE WITH INSTRUCTIONS

H-10210 adequately complies with the project instructions noted in section 1 of this report.

9. ADDITIONAL FIELD WORK

This is a good basic hydrographic survey. Additional field work to locate or disprove the piers listed in section 7 of this report and to resolve AWOIS item 00785 is recommended on a low priority basis.

Respectfully submitted,

Charles R. Davies

C.R. Davies
Cartographer

This survey has been examined and it meets Charting and Geodetic Service standards and requirements for use in nautical charting. This survey is recommended for approval.

Dennis Hill

Dennis Hill
Chief, Hydrographic Section

ATTACHMENT TO DESCRIPTIVE REPORT FOR H-10210

I have reviewed the smooth sheet, accompanying data, and reports of this hydrographic survey. Except as noted in the Evaluation Report, the hydrographic survey meets or exceeds Charting and Geodetic Services (C&GS) standards, complies with instructions, and is accurately and completely represented by the smooth sheet and digital data file for use in nautical charting.

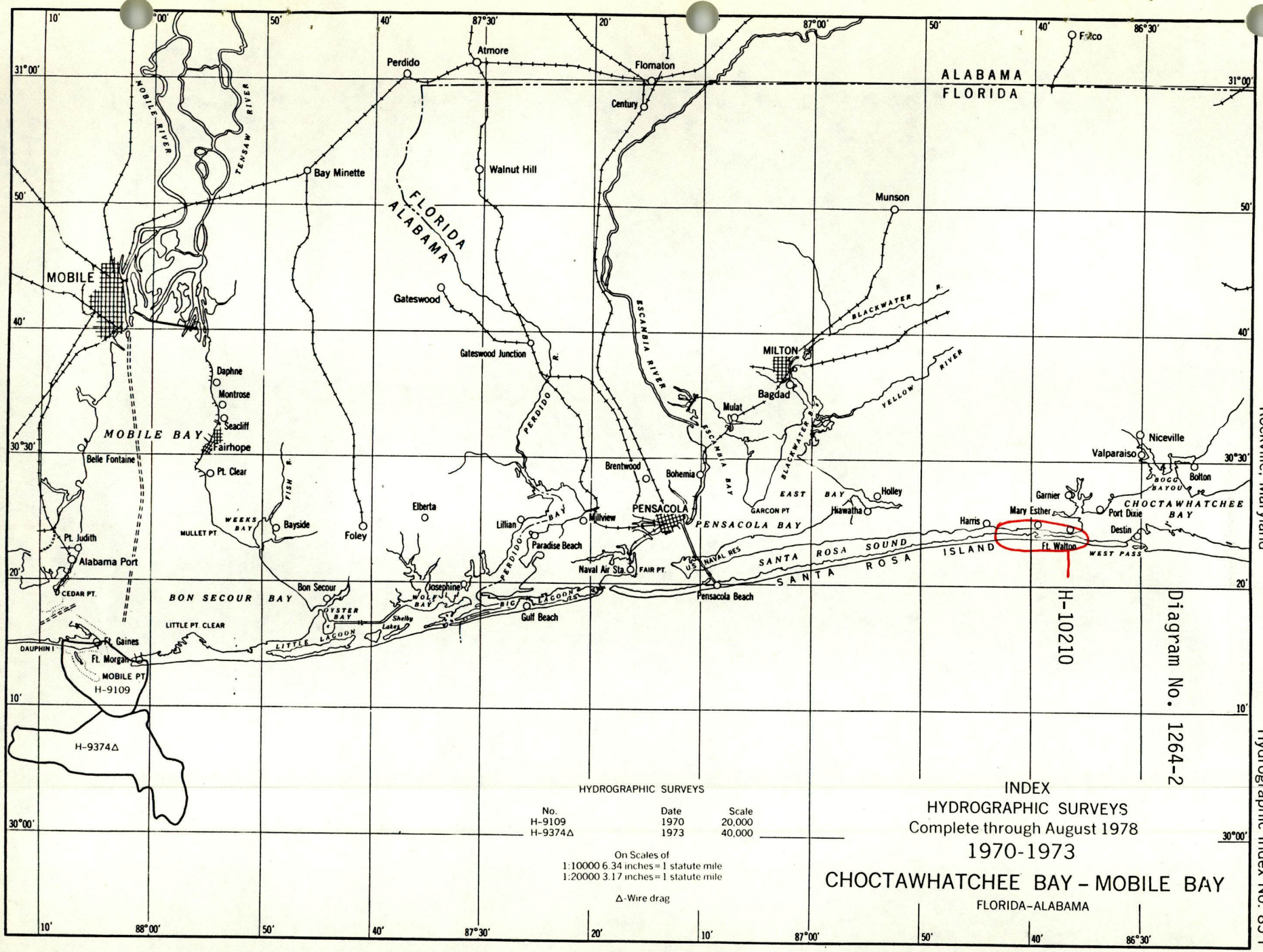
6/30/87
Chief, Nautical Chart Branch (Date)

CLEARANCE: SIGNATURE AND DATE:

N/MOP2:LWMordock 6/30/87

After review of the smooth sheet and accompanying reports, I hereby certify this survey is accurate, complete, and meets appropriate standards with only the exceptions as noted above. The above recommendations are forwarded with my concurrence.

6-30-87
Director, Pacific Marine Center (Date)


ALABAMA
FLORIDA
MOBILE
MOBILE BAY
Daphne
Montrose
Seacliff
Fairhope
Belle Fontaine
Pt. Clear
Pt. Judith
Alabama Port
CEDAR PT.
MULLET PT
WEEKS BAY
FISH R.
Bayside
Foley
BON SECOUR BAY
LITTLE PT. CLEAR
Bon Secour
OYSTER BAY
LITTLE LAGOON
Shelby Lakes
Ft. Gaines
DAUPHIN I
Ft. Morgan
MOBILE PT
H-9109
H-9374Δ
Bay Minette
Perdido
Atmore
Walnut Hill
Gateswood
Gateswood Junction
FLORIDA
ALABAMA
PERDIDO R.
Elberta
Josephine
WOLF BAY
Gulf Beach
Flomaton
Century
Munson
ESCAMBIA RIVER
Brentwood
Bohemia
Lillian
Millview
PENSACOLA
Paradise Beach
Naval Air Sta.
FAIR PT.
PENSACOLA BAY
ESCAMBIA BAY
GARCON PT
EAST BAY
Holley
Hiawatha
MILTON
Bagdad
Mulat
BLACKWATER R.
YELLOW RIVER
Pensacola Beach
US NAVAL RES
SANTA ROSA SOUND
SANTA ROSA ISLAND
Harris
Mary Esther
Garnier
Ft. Walton
Valparaiso
Niceville
Bolton
BOGG BAYOU
Port Dixie
CHOCTAWHATCHEE BAY
Destin
WEST PASS
Foco
HYDROGRAPHIC SURVEYS
No. Date Scale
H-9109 1970 20,000
H-9374Δ 1973 40,000
On Scales of
1:10000 6.34 inches = 1 statute mile
1:20000 3.17 inches = 1 statute mile
Δ-Wire drag
INDEX
HYDROGRAPHIC SURVEYS
Complete through August 1978
1970-1973
CHOCTAWHATCHEE BAY – MOBILE BAY
FLORIDA–ALABAMA
H-10210
Diagram No. 1264-2
Hydrographic Index No. 85 F
DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Ocean Survey
Rockville, Maryland

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-10210

INSTRUCTIONS

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

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

CHART	DATE	CARTOGRAPHER	REMARKS
11385	1-12-88	S. Hill	Full Part Before After Marine Center Approval Signed Via
	1-20-88	✓ [illegible]	Drawing No. 19
			Full Part Before After Marine Center Approval Signed Via
			Drawing No.
			Full Part Before After Marine Center Approval Signed Via
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			Drawing No.

SUPERSEDES C&GS FORM 8352 WHICH MAY BE USED.