

10207

Diagram No. 1265-3

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-10-7-85
Registry No. ... H-10207.....

LOCALITY

State Florida
General Locality . Santa Rosa Sound
Sublocality Three Miles East of Woodlawn
Beach to Lower Pritchard
Long Point.....

19 85-86

CHIEF OF PARTY
LCDR K.W. Perrin

LIBRARY & ARCHIVES

DATE August 3, 1987

10207

Area 3
CHT
11385-B
SIGN OFF
ON RECORD OF
APPLICATIONS

HYDROGRAPHIC TITLE SHEET

H-10207

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 10-7-85

State Florida

General locality Santa Rosa Sound

Locality Three Miles East of Woodlawn Beach to Lower Pritchard Long Point

Scale 1:10,000 Date of survey 13 Nov. 1985 - 23 Apr. 1986

Instructions dated September 31, 1984 Project No. OPR-J288-HFP-85

Vessel HFP-2/3, Launch 517

Chief of party LCDR Kenneth W. Perrin

Surveyed by LT(jg) Kenneth P. Peters

Soundings taken by echo sounder, hand lead, pole Echo Sounder and Pole

Graphic record scaled by K. Peters, R. Snow, J. Oswald, T. Rybarski, E. Elliot

Graphic record checked by K. Peters, R. Snow, J. Oswald, T. Rybarski, D. Elliot

Verification by M. Sanders Automated plot by PMC Xynetics Plotter

Evaluation by I. Almacen

Soundings in ~~fathoms~~ feet at ~~MHW~~ MLLW

REMARKS: Marginal notes in black are by the evaluator. Separates are filed with hydrographic data.

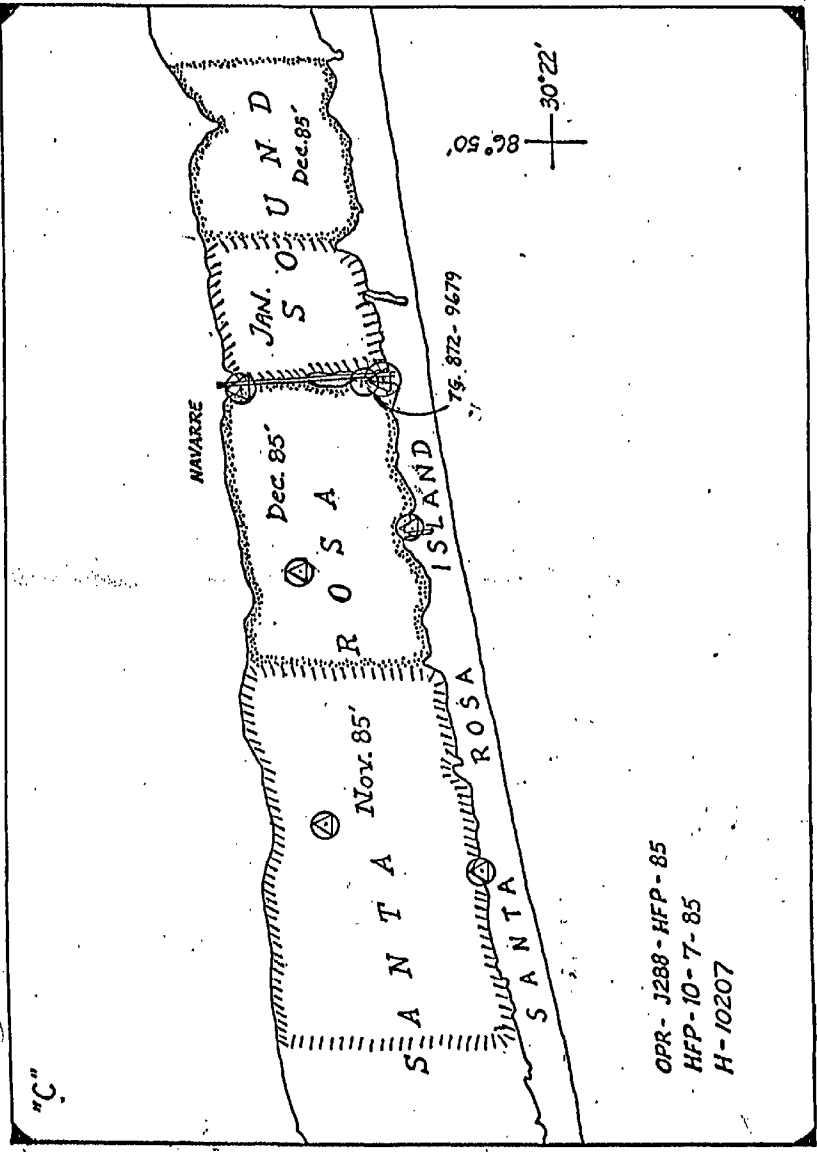
STANDARDS CRID 8229-87

C. Cox

AWOIS and SURF CHECK 2/25/88 M.C. Riddle

SA 1-31-97

HFP-2/3
 Progress Sketch
 OPR J288-HFP-85
 Santa Rosa Sound, Fl.
 LCDR K.W. Perrin; Chief, HFPS



OPR - J288 - HFP - 85
 HFP - 10 - 7 - 85
 H - 10207

Month	Oct. 85	Nov. 85	Dec. 85	Jan. 86	Feb. 86	Apr. 86
SqM Sdg	0	6.0	2.5	1.0	0	1.0
LNM Sdg	0	57	73.0	48.5	3.1	*22.1
LNM to/from	0	21.0	15.0	24.0	21.0	19.0
LNM misc.	0	9.2	20.2	15.0	10.0	10.0
DP/BS	0/0	5/17	45	50/9	160	4
Cont. Sta. Set/Rec	0	1/4	0/1	0/2 rec.	0	1/0
Tide Sta.	1	0	0	0	0	0

* Dev. Log. + Sp/1.73

DESCRIPTIVE REPORT
TO ACCOMPANY
HYDROGRAPHIC SURVEY H-10207
HSB-10-7-85
HFP

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

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 sheet letter specified in the project instructions is "C".

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

B. AREA SURVEYED

The area surveyed was Santa Rosa Sound in the vicinity of Navarre Beach, FL. The survey area is defined by Santa Rosa Island to the south and mainland Florida to the north between Woodlawn Beach to the west and Lower Pritchard Long Point to the east. The survey is bounded by the following points:

Lat. 30°22'10.00"N, Long. 86°57'00.00"W
Lat. 30°23'42.00"N, Long. 86°56'47.00"W
Lat. 30°23'27.00"N, Long. 86°49'30.00"W
Lat. 30°24'45.00"N, Long. 86°49'30.00"W

Depths in the survey area ranged from zero to 19 feet. Shoal soundings were observed several hundred meters from the shoreline and a spoil runs along the channel throughout most of the survey area. The bottom was generally sandy in the survey area.

³ This survey was conducted from 13 November 1985 DN 317, to 28 April 1986 (DN 118) inclusive.

C. SOUNDING VESSEL

All soundings obtained on this survey were obtained from NOAA Launch 0517. All survey records are annotated with the vessel number 0517. Soundings in some inshore and shoal areas were determined by walking within the 1-foot curve with a sounding pole. The depths were recorded while simulataniously determining positions using an HP-3808A and prisms mounted on the top of the sounding pole. ✓

D. SOUNDING EQUIPMENT AND CORRECTIONS TO ECHO SOUNDINGS

The following Raytheon fathometer equipment was used during the survey:

DN 317 - 345:	RECORDER	MODEL	# 719-C
		SERIAL	# 5881
	ECU	MODEL	# N/A
		SERIAL	# N/A
	DIGITIZER	MODEL	# N/A
		SERIAL	# N/A
		MODEL	# N/A
DN 350 -113:	RECORDER	MODEL	# 719-C
		SERIAL	# 5799
	ECU	MODEL	# N/A
		SERIAL	# N/A
	DIGITIZER	MODEL	# N/A
		SERIAL	# N/A

On 11 December 1985, (DN 345) Raytheon 719-C Fathometer, s/n 5881, failed after position #1120. The unit would not maintain the initial calibration and was sent to the Atlantic Marine Center for repairs. Fathometer soundings after DN 345 were taken with Raytheon 719-C Fathometer, s/n 5799. The Fathometer was monitored continuously while sounding and was under constant adjustment to insure that no intial corrections were necessary. ✓

A three prism mirror was mounted on top of a sounding pole and was used to obtain soundings in areas inaccessible to the launch where depths were one foot or less. Soundings taken at the waters edge were recorded as zeros. ✓

Settlement and squat test on launch 0517 were run on 5 March 1986 at Fort Walton Beach. The results of these test are included in the Appendix of this report. Settlement and squat corrections will be applied via the TC/TI tape during plotting of the smooth sheet at the Pacific Marine Center and were not applied to the field sheets. ✓

Velocity and instrument corrections were determined by bar checks. A total of 39 bar checks were taken during the course of the survey. The bar checks were reduced to three velocity tables. The first table was reduced from 18 bar checks for the period of DN 317 thru DN 345 ✓

inclusive, when the Raytheon 719-C Fathometer, S/N 5881, failed. The second table represents 15 bar check results from DN 350 thru DN 43 inclusive for Raytheon 719-C Fathometer, S/N 5799. The third table represents eight bar check results from DN 105 thru DN 113 for Raytheon 719-C Fathometer, S/N 5799. ✓

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 lines on the bar were measured on 29 October 1985 and 24 April 1986 to insure the five-foot interval marks were accurate. No corrections were necessary. Direct Comparison Logs for Velocity Tables one and two are not included with survey data. Daily bar checks are recorded in the sounding volumes and results are included on Abstract of Daily Bar Check Corrections pages 25, 28, and 29 of this report. ✓

Tide correctors were determined using unverified actual tide heights reduced to Mean Lower Low Water. Heights were obtained from the Santa Rosa Sound, East End (872-9679) tide station. This station was located approximately in the center of the survey area. A copy of the request for smooth tides is included in the appendix of this report. ✓

E. SURVEY 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.

Mainscheme hydrography, 50-meter developments having common control with the mainscheme and inshore shoal areas inaccessible to the launch are plotted on the smooth field sheet. Developments having control not common with mainscheme, crosslines, channel lines, shoal axis lines, star pattern development, detached positions, bottom samples, and aids to navigation 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

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

The methods used to control this survey were either Range-Azimuth or Range-Range. Range-Azimuth positions were determined by either of

two methods. To develop inshore areas where depths were less than one foot, a man carrying three-prism mirrors mounted atop a sounding pole was located with a HP-3808A EDM set over a horizontal control station. Launch positions were determined by Range-Azimuth utilizing a Del Norte distance measuring unit to determine range and a Nikon NT-2D 20" theodolite to determine azimuth.

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

ITEM	MANUFACTURE	MODEL	SER. NUM.
Theodolite	Nikon	NT-2D	031045
Elect-Dist-Meas	Hewlett-Packard	3808A	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

Baseline calibration of the Del Norte equipment was performed at random intervals during the course of the survey. Baseline distances of 1774 and 2143 meters were determined with the HP-3808A EDM. Baseline Calibration forms are contained in the accordion fan folder with the survey data. An abstract of the baseline correctors is recorded on the abstract for electronic correctors and included in the Appendix of this report.

Daily calibrations of the Del Norte were taken statically between horizontal control stations prior to and at the end of each day of hydrography. True distances for static checks were determined by inverse computation between Third-order stations and fixed aids. Acceptable tolerances were observed throughout the survey and were supported by baseline values. Correctors were applied to the position data (via corrector tapes) based on daily check results, which in the opinion of the hydrographer, can be considered mean baseline calibrations on a daily basis. The result of the daily calibrations were within tolerance described by AMC Operations Order 79. An abstract of corrections to electronic position control is included in the Appendix of this report.

H. SHORELINE

Shoreline detail was obtained from TP-00549 from Job CM-7719. The photo manuscript was compiled at 1:20,000 scale and enlarged to, 1:10,000 scale photographically. The enlargement was distorted 0.6 mm in 100 mm, which necessitated the constant shifting of the sheet to transfer shoreline and shoreline details.

Shoreline details were verified by detached positions or visual verification. These features have been transferred to the field

sheet. Shoreline verification was accomplished by comparison of the mainscheme hydrography junctioning at shore or by visual inspection. ✓

No shoreline changes were observed other than the construction or destruction of piers. Features appearing in blue on the field sheet were copied from the photomanuscript and are now non-existent. Features appearing in red on the field sheet are new and are not on the manuscript. The hydrographer recommends that these features be *concur.* charted.

Features appearing in brown on the manuscript were taken from the blowup of Chart 11385, 14th Edition, dated July 2/83 and are presently non-existent. Discrepancies between the survey, TP-00549, and the chart are listed in Section L of this report and recommendations to resolve the differences are made. ✓

Nine control stations were located seaward of the shoreline. All nine of the stations are located atop fixed navigational aids. They are:

SURVEY NO.	LIGHT LIST NAME	LIGHT NO.
=====		
111	Santa Rosa Sound Lt.	123
113	Santa Rosa Sound Lt.	121
115	Santa Rosa Sound Lt.	114
117	Santa Rosa Sound Lt.	108
119	Santa Rosa Sound Lt.	102
139	Santa Rosa Sound Lt.	90
141	Santa Rosa Sound Lt.	88
143	Santa Rosa Sound Lt.	87
145	Santa Rosa Sound Lt.	82
NONE	Santa Rosa Sound Lt.	32

I. CROSSLINES

Crosslines constitute 14.8% of the mainscheme hydrography. Ninety-seven of the crossings agree exactly and no soundings are in disagreement at more than 1.0 foot. The excellent agreement can be attributed to the application of unverified actual tides and to the generally flat bottom characteristics. ✓

J. JUNCTIONS

Survey, H-10172, was conducted concurrently with H-10207 by HFP-2/3 party members in NOAA launch 0519. Junction agreement between the two surveys was excellent. Virtually 100% of all soundings and contour lines were in exact agreement. This agreement may be attributed to several factors: application of unverified actual tides to both surveys; the surveys were conducted concurrently eliminating differences due to sediment transport; and the absence of dramatic ✓

contour changes with in the survey areas. Junction soundings appear on the semi-smooth field sheet in black and on the smooth field sheet in red. This survey junction with H-10209 to the west.

K. COMPARISON WITH PRIOR SURVEYS

This survey was previously covered by the following survey, H-5705 & H-5729 (1935), 1:10,000 scale. Comparison showed that the prior survey was generally in good agreement with the present survey. Most soundings agreed within two feet and contour lines have similar patterns. There are, however, several areas where divergence occurs.

Many of the discrepancies can be traced to man's activities in the sound; such as dredging and construction. The channel between long. 86°55'0"W and long. 86°51'30"W has depths three to seven feet greater than the prior survey as a result of dredging. Accordingly, the spoil areas beside the channel have survey depths of one to three feet shoaler than those shown on the prior survey. ✓

A causeway was constructed between Navarre and Navarre Beach at long. 86°51'45"W. A trench runs parallel to the west side of the causeway between lat. 30°23'06"N, long. 86°51'54"W and lat. 30°23'36"N, long. 86°51'54"W. Depths in this area are as great as 19 feet. Depths from survey H-5705 do not exceed 6 feet. Apparently the trench was dredged to provide foundation material for the building of the causeway. ✓

Two shoal areas on the prior survey but not immediately evident from the mainscheme of the present survey were developed. The first was a two-foot sounding on H-5705 at lat. 30°23'27"N, long. 86°53'35"W. The second is a one-foot sounding at lat. 30°23'36"N, long. 86°52'33" W. These were developed by running star patterns over the area. In both cases the least depths determined were not less than four feet. ✓

There were no AWOIS items within the survey limits.

L. COMPARISON WITH THE CHART

This survey was compared as the survey progressed with the 16th. Edition of Chart 11385 dated August 1985. The 14th Edition of Chart 11385, 1:40,000-scale chart, was photographically enlarged to 1:10,000 scale and was also used for comparison, taking into account the differences between the editions. *See EVAL RPT sec. 7*

A Danger to Navigation Report was submitted to the Commander, Eighth Coast Guard District on 26 February 1986. The following dangers were located during the course of the survey:

1. SHOAL: Lat. 30°23'39.²⁶0"N, long. 86°54'00.^{5 85}0"W a three-foot shoal exist in an area characterized by depths of eight to ten feet and charted as eleven feet.

2. CHANNEL SHIFTING: The channel between long. 86°55'0"W and long. 86°52'0"W is about 50 meters south of the charted channel. Buoys in the area have been relocated by the Coast Guard to accurately depict the true location of the channel and to indicate positions of the shoal spoil areas on either side of the channel. Three-foot soundings were observed in the spoil area immediately north of the marked channel between Buoy 106 (lat. 30°23'34.8"N, long. 86°53'46.6"W) and Santa Rosa Sound Light 102 (lat. 30°23'38.4"N, long. 86°53'22.0"W).

A copy of the Dangers to Navigation Report is included in the Appendix of this report.

A comparison of the survey and Chart 11385 was made. The survey was found to be in general agreement with the chart having a majority of soundings comparing within one foot and exhibiting similar contour patterns. There are, however, several areas other than those listed as dangers to navigation where discrepancies occurred and the survey data should supersede charted soundings and features. *concur.*

⁽¹³⁾ Thirteen to 15-foot depths are charted where the greatest depths recorded during the survey is 12 feet at lat. 30°22'28.0"N, long. 86°56'05.0"W to lat 30°22'57.0"N, long. 86°56'13.0"W. A 15-foot sounding is charted at lat. 30°22'37.0", long. 86°52'37.0"W in an area characterized by 12-foot soundings during the present survey. A third 15-foot charted sounding exists at lat. 30°22'06.0"N, long. 86°55'54.0"W in an area characterized by 11- to 13-foot depths. All of these soundings are located near the southern shore of Santa Rosa Sound and there are no apparent trends to explain the discrepancies. The shoaler depths of the present survey do not constitute a danger to navigation because any approaches would require that the vessel navigate across seven-foot depths.

As stated above as a danger to navigation, the channel is shifting southward between long. 86°55.0'N and long. 86°52.0'W. The shoal area to the north of the channel is shifting south in this area also. The north edge of the channel is now approximately in the center of the charted channel. The spoil area south of the channel has moved south and exhibits signs of erosion. The majority of the depths south of this spoil area throughout the entire survey area are one foot shoaler than the survey soundings.

There are several spoil areas south of the channel between long. 86°55.0'W and long. 86°50.0'W charted as uncovering. The soundings from the present survey show these areas not uncovering and in some cases are significantly deeper. Listed from west to east these areas are:

1. Lat. 30°23'15"N, long. 86°55'30"W to lat 30°23'15"N, long. 86°55'24"W - Charted as "uncovering", the present survey's

soundings are from ~~four~~^{three} to five feet. Depths adjacent to the charted "uncovers" are generally four to six feet while charted as three to five feet. *

2. Lat. 30°23'19"N, long. 86°54'39"W - Charted as uncovers with adjacent areas three to seven feet deep; the survey shows four- to six-foot soundings surrounded by seven- and eight-foot depths. * ✓
3. Lat. 30°23'18"N, long. 86°54'09"W to lat. 30°23'37"N, long. 86°53'59"W - Charted within the three-foot contour and uncovering in places, the present survey shows no depths less than seven feet and as great as eleven feet. * ✓
4. Lat. 30°23'21"N, long. 86°53'57"W to lat. 30°23'37"N, long. 86°51'27"W - This area is charted within the three-foot curve and uncovering throughout most of the area. Soundings from survey are generally one to three feet over areas charted as uncovers and four to six feet elsewhere within the charted three-foot contour. * ✓
5. Lat. 30°23'42"N, long. 86°^{50 00}49'51"W to lat. 30°23'40"N, long. 86°50'29"W - Charted as "uncovers" * the survey soundings show depths of one to three feet. * with small islet in the middle at Lat. 30°23'44"N, Long. 86°50'13"W. *
6. Lat. 30°23'35"N, long. 86°49'51"W - Charted as "uncovers", ^{three} data from the present survey shows depths no less than four feet. *

All shoal areas within the limits of the survey were developed by running 50-meter arcs with the exception of some inshore shoal areas too shallow to survey using the launch. These areas were developed by taking pole soundings with a sounding pole and a three-prism mirror. ✓

Charted shoal areas, not evident on the present survey mainscheme, were developed. In every case it was verified that the greater depths of the present survey were accurate. The following charted shoals were investigated: ✓

1. Shoal, charted as bares, at lat. 30°23'34"N, long. 86°49'50"W was developed and a least depth of ~~four~~^{three} feet was determined. *
2. Four charted three-foot shoals in an area of charted depths of four feet in the vicinity of lat. 30°23'15"N, long. 86°52'30"W were investigated by split arcs and star pattern searches and least depths of four feet were found. * ✓

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 north

shore and east to west on the south shore of Santa Rosa Sound, were found to be in disagreement:

(All positions are 30 degrees north lat., 86 degrees west long. The degrees have been dropped from this listing. NE-No Evidence, VV-Visually Verified, DEL-Delete).

ITEM	POS#	CHART 11385	TP-01170	RECOMM.
T-PIER	NE	23'45", 56'10"	NO	DEL ^x
L-PIER	316	NO	NO	L-PIER ^v
PIER	317	NO	NO	PIER ^v
PIER	NE	23'45", 55' ² 55"	NO	DEL
PIER	318	NO	NO	PIER
PIER	NE	23'43' ⁵ ", 55' ² 31"	NO	DEL
PIER	NE	23'44", 55'02"	NO	DEL
PIER	2087	NO	NO	PIER
PIER RUINS	NE	23'45", 54' ⁵ 50"	NO	DEL
PIER	NE	23'45", 54'44' ⁹ "	NO	DEL
PIER	NE	23'51", 54'33"	NO	DEL
PIER	NE	YES	23'51", 54'29"	DEL
L-PIER	NE	23'52", 53'58"	NO	DEL
PIER	2154	NO	NO	PIER
L-PIER	716	NO	NO	L-PIER
PIER	2158	NO	NO	PIER
T-PIER	722	NO	NO	T-PIER
L-PIER	723	NO	NO	L-PIER
T-PIER	728	NO	NO	T-PIER
PIER	1360	NO	NO	PIER
PIER RUINS	1361	NO	PIER	PIER RUINS
LAGOON	VV	NO	24'15", 49'11"	LAGOON (on H-10209)
T-PIER	710	NO	NO	T-PIER
CONC. PIPE	711	NO	NO	CONCRETE
PIPE				
T-PIER	712	NO	NO	T-PIER
CONC. PIPE	713	NO	NO	CONCRETE
PIPE				
L-PIER	714	NO	NO	L-PIER
PIER	715	NO	NO	PIER
SURFACED RP	23'00", 51'41"	NO	NO	DEL
PIER	NE	23'51", 54'29"	NO	DEL
PIER	NE	23'44", 55'16"	NO	DEL

The hydrographer recommends that the chart be superseded by the survey. Of special importance, the next edition of the chart should show the survey location of the channel and the potentially dangerous shoal spoil area in close proximity to the north edge of the channel between lat. 30°23'27"N, long. 86°55'00"W and lat. 30°23'39"N, long. *concl.* 86°53'00"W.

M. ADEQUACY OF SURVEY

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

CONCUR.

N. AIDS TO NAVIGATION

All floating aids to navigation within the area covered by H-10207 were located by detached positions and they are:

POS.	LATITUDE (N)	LONGITUDE (W)	DESCRIPTION
280	30°23'24.3 ³ 0"	86°55'43.7 ² 5"	Buoy 122, Red Nun w/yellow band
281	30°23'21.8 ³ 6"	86°55'24.5 ⁴ 0"	Buoy 119, Green Can w/yellow band
718	30°23'36.9 ⁵ 4"	86°53'05.48"	Buoy 101, Green Can w/yellow band
719	30°23'38.40"	86°52'50.89"	Buoy 99, Black Can w/yellow band
720	30°23'40.46"	86°52'33.72"	Buoy 97, Green Can w/yellow band
721	30°23'43.62"	86°52'33.36"	Buoy 96, Red Nun w/yellow band
726	30°23'46.1 ⁸ 8 ⁹⁵ "	86°51'59.6 ² 1 ⁰¹ 3"	Buoy 92, Red Nun w/yellow band
1101	30°23'35.34"	86°53'21.05"	Buoy 103, Green Can w/yellow band
1102	30°23'33.8 ⁹⁰ 9"	86°53'35.1 ⁵ 4"	Buoy 105, Green Can w/yellow band
1103	30°23'36.1 ⁸ 7"	86°53'35.4 ¹ 0"	Buoy 104, Red Nun w/yellow band
1104	30°23'34.8 ³ 2"	86°53'46.59"	Buoy 106, Red Nun w/yellow band
1105	30°23'31.0 ⁸ 7"	86°53'59.15"	Buoy 107, Black Can w/yellow band
1106	30°23'32.7 ³ 2"	86°54'13.42"	Buoy 110, Red Nun w/yellow band
1362	30°23'48.5 ³⁵ 6"	86°50'13.6 ⁵⁵ 6"	Buoy 85, Black Can w/yellow band

H-10207

POS.	LATITUDE (N)	LONGITUDE (W)	DESCRIPTION
1363	30°23'51. ⁰⁸ 08 "	86°50'02. ⁰⁵ 17 "	Buoy 84,Red Nun w/yellow band
1364	30°23'45. ³⁸ 64 "	86°49'56. ¹³ 24 "	Buoy 83,Black Can w/yellow band
1365	30°23'47. ⁶ 19 ⁸⁷ "	86°49'32. ⁰⁸ 19 "	Buoy 81A,Black Can w/yellow band
1787	30°23'43. ²¹ 16 "	86°52'16. ⁶³ 47 "	Buoy 95,Green Can w/yellow band
1956	30°23'28. ¹ 06 "	86°54'26. ⁶⁹ 72 "	Buoy 111,Black Can w/yellow band
1957	30°23'31. ³ 26 "	86°54'27. ¹ 26 "	Buoy 112,Red Nun w/yellow band
1958	30°28'26. ⁴⁶ 34 "	86°54'42. ¹ 26 "	Buoy 113,Green Can w/yellow band
1959	30°23'24. ⁵ 97 ⁰⁹ "	86°54'56. ⁴⁷ 51 "	Buoy 115,Black Can w/yellow band
1960	30°23'23. ⁶⁰ 47 "	86°55'09. ⁰⁸ 12 "	Buoy 117,Green Can w/yellow band
2039	30°23'50. ³ 69 "	86°51'13. ³ 04 "	Buoy 89,Green Can w/yellow band
2040	30°23'54. ²⁶ 32 "	86°51'14.37"	Buoy 88A,Red Nun w/yellow band
2041	30°23'48. ⁷⁹ 87 "	86°51'23. ⁸ 89 "	Buoy 89A,Green Can w/yellow band
2042	30°23'47. ⁶³ 78 "	86°51'40. ⁴ 38 "	Buoy 91,Green Can w/yellow band

A comparison between the charted positions and the surveyed positions was made. It was observed that several buoys had been moved to better indicate the course of the channel. Buoys #106, 104, and 96 have positions about 100 meters south of the charted position where the channel has apparently shifted. ✓

The survey position of buoy #101 is about 200 meters ESE of the charted position and better indicates the location of a shifted shoal area. All floating aids were found to adequately serve the apparent purpose for which they were established. ✓

Descriptions of floating aids in the Light List (Vol. 2, 1985) were compared with those of the present survey and were found to be ✓

in agreement. All buoys in the project area had a yellow band indicating an InterCoastal Waterway Buoy. In the sounding volumes the yellow band was erroneously described as an "orange stripe." ✓

All fixed aids in the survey area were located to Third-order, Class 1 standards as required in the project instructions. Positions for these lights are in the appended NOAA Form 76-40. Positions were determined in 1984 by HFP-4 as geodetic control stations with the exception of Light 102 which was moved to a new location to better define the channel. The charted position of Light 102 is about 125 meters NE of the surveyed position. The position of this light was redetermined to Third-order by HFP-2/3. The position for this light is appended on NOAA form 76-40 and should supersede the charted position. *CONCUR.*

A causeway bridge runs North-South across Santa Rosa Sound between Navarre and Navarre Beach. The charted 50-foot vertical clearance of the north Navarre Causeway Bridge through which the channel runs was verified by a lead line measurement. Clearance of the southern Navarre Causeway Bridge was determined to be nine feet by lead line measurement. Detached positions #709 and #2045 were taken on the southern spit of the Navarre Causeway Bridge at the northwest and northeast end respectively. Detached positions #2044, 708, 725, and 2045 mark the southeast, southwest, and northwest corners of the island in the Navarre Causeway Bridge respectively. *See EVAL RPT Sec.7*

A submerged cable crossing parallels the west side of the Navarre Causeway Bridge and cable crossing signs are marked by detached positions #708, 709, 725, and 2315. A fifth cable crossing sign is located on the north shore of Santa Rosa Sound about 1800 meters west of the Navarre Causeway Bridge and is marked by detached position #2161.

O. STATISTICS

Number of Positions.....	2603
Days of Production (Days at Sea).....	28
Nautical Miles of Sounding Line.....	151.4
Nautical Miles of Crossline.....	21.9
Nautical Miles of Development.....	61.4
Total Miles of Hydrography.....	234.7
Number of Detached Positions.....	322
Number of Bottom Samples.....	71
Square Miles of Hydrography.....	7
Number of Bar Checks.....	39
Tide Stations Installed.....	2
Number of TDC Cast.....	0

P. MISCELLANEOUS

Throughout the period during which this survey was run, no current greater than 0.65 kts was observed. Observations were made during bar

that the velocity of the current may be as great as 1.0 kts, however, no accurate determination of current velocity in this area has been made at this time. Results of current observations in the Narrows are included in the Appendix. Currents in the survey area are tidally influenced.

The sublocality for this survey was designated west to east because Santa Rosa Sound is similar to a river with its mouth at Pensacola Bay. The sublocality shown on NOAA Form 77-44 should read Three Miles East of Woodlawn Beach to Lower Pritchard Long Point.

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	4/18/75
RK211	Range/Range Non-Real Time Plot	2/13/84
RK212	Visual Station Table Load	4/01/74
RK216	Range/Azimuth Non-Real Time Plot	2/24/84
RK300	Utility Computations	2/05/76
RK330	Reformat and Data Check	10/21/80
PM360	Electronic Corrector Abstract	2/02/76
RK407	Geodetic Inverse/Direct Computation	9/25/78
AM500	Predicted Tide Generator	11/10/72
RK561	H/R Geodetic Calibration	2/19/75
RK562	Geodetic Calibration	9/10/74
AM602	ELINORE - Line Oriented Editor	12/08/82

S. REFERENCE TO REPORTS

The Descriptive Reports for H-10172 and H-10209 to be submitted in 1986 should be reviewed 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. *See EVAL RPT. Sec. 2*

Coast Pilot Report (NOAA form 77-6).

Current Observations, Santa Rosa Sound, FL.

Santa Rosa Sound User Evaluation.

Respectfully Submitted,

For/ Robert Lewis
Kenneth P. Peters
LTJG, NOAA
OIC, HFP-2/3

Signal Tape Listing Santa Rosa Sound, Fla.

OPR-J288

HFP-10-7-85

H-10207

011	1	30	23	45001	086	55	06772	250	0000	000000	Camp "1984"
019	6	30	22	54284 ⁸	086	52	52422 ⁷	250	0000	000000	Nayarre
021	1	30	23	59050 ⁴	086	51	49135 ⁰	250	0000	000000	Santa Rosa
023	7	30	23	10773 ⁸	086	51	45093 ⁸	250	0000	000000	4884 B47 FDNR.
025	1	30	24	02790 ³	086	49	53184 ⁸	250	0000	000000	Pritchard
027	1	30	23	52080 ⁴	086	53	22323 ⁶	250	0000	000000	Williams Creek Use
029	6	30	22	29600 ⁷	086	55	24643	250	0000	000000	Hard
031	1	30	23	31200 ²	086	57	49590 ²	250	0000	000000	Sunset
111	6	30	23	06900 ⁶	086	57	25301 ⁶	250	0000	000000	Santa Rosa Sound Lt. "123"
113	6	30	23	18534	086	55	41056 ⁷	250	0000	000000	Santa Rosa Sound Lt. "121"
115	6	30	23	29311 ⁶	086	54	42481 ⁷	250	0000	000000	Santa Rosa Sound Lt. "114"
117	6	30	23	33938	086	54	00061 ³	250	0000	000000	Santa Rosa Sound Lt. "108"
119	6	30	23	38344	086	53	22022 ⁰	250	0000	000000	Santa Rosa Sound Lt. "102"
139	6	30	23	53410 ³	086	51	23344 ⁷	250	0000	000000	Santa rosa sound Lt. "90"
141	6	30	23	58066 ⁰	086	51	01580 ⁴	250	0000	000000	Santa Rosa Sound Lt. "88"
143	6	30	23	51228	086	50	31271 ⁸	250	0000	000000	Santa Rosa Sound Lt. "87"
145	6	30	23	48940 ²	086	49	54641 ⁵²	250	0000	000000	Santa Rosa Sound Lt. "82"
152	6	30	23	24072 ⁴	086	49	47100	250	0000	000000	Dune Too

All stations established in 1984 including marks set prior to survey.

Horizontal control by G. Fredricks, B.Link, D.Elliott, M. Mcmann.

Replaces C&GS Form 567.

- TO BE CHARTED
- TO BE REVISED
- TO BE DELETED

REPORTING UNIT
(Field Party, Ship or Office)

HFPS-HFP2/3

STATE

Florida

LOCALITY

Santa Rosa Sound

DATE

1986

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

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

ORIGINATING ACTIVITY

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

(See reverse for responsible personnel)

The following objects HAVE BEEN INSPECTED FROM SEAWARD TO DETERMINE THEIR VALUE AS LANDMARKS.

CHARTING NAME	DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses.)	DATUM		POSITION		LONGITUDE		OFFICE	FIELD	CHARTS AFFECTED
		°	'	°	'	D.M. Meters	D.P. Meters			
J288	OPR PROJECT NO.	H-10207		NA 1927						
	JOB NUMBER	-----								
LIGHT	Santa Rosa Sound Light 82 LL#6012 Sig.No. 145	30	23	86	49	54.647 ⁵⁰		All positions are unadjust. field posit.	F-3-6-L 1984	11385
LIGHT	Santa Rosa Sound Light 87 LL#6013 Sig. No. 143	30	23	86	50	51.228 ³⁰	31.279 ⁸⁴		F-3-6-L 1984	11385
LIGHT	Santa Rosa Sound Light 88 LL#6014	30	23	86	51	58.066 ⁹	01.580 ⁴		F-3-6-L 1984	11385
LIGHT	Santa Rosa Sound Light 90 LL#6015	30	23	86	51	53.410 ³	72.344 ⁷		F-3-6-L 1984	11385
DAYBEACON	Santa Rosa Sound Daybeacon 93	30	23	86	51	46.122	59.462		F-2-6-L 4/28/86	11385
LIGHT	Santa Rosa Sound Light 102 LL#6016	30	23	86	53	38.391 ⁴²	22.022 ⁰²⁰		F-3-6-L 12/6/85	11385
LIGHT	Santa Rosa Sound Light 108 LL#6017	30	23	86	54	33.938 ⁴⁵	00.061 ³		F-3-6-L 1984	11385
LIGHT	Santa Rosa Sound Light 114 LL#6018	30	23	86	54	29.311 ⁶	42.481 ⁷		F-3-6-L 1984	11385
LIGHT	Santa Rosa Sound Light 121 LL#6019	30	23	86	55	18.524 ⁴³	41.056 ⁷		F-3-6-L 1984	11385
LIGHT*	Santa Rosa Sound Light 123 LL#6020	30	23	86	57	06.096 ^{7 00}	25.301 ⁶		F-3-6-L 1984	11385

L-708(87)

<p>TYPE OF ACTION</p>	<p>NAME</p>	<p>ORIGINATOR</p> <p><input type="checkbox"/> PHOTO FIELD PARTY <input checked="" type="checkbox"/> HYDROGRAPHIC PARTY <input type="checkbox"/> GEODETIC PARTY <input type="checkbox"/> OTHER (Specify)</p>
<p>OBJECTS INSPECTED FROM SEAWARD</p>	<p>Kenneth Peters, LTJG., NOAA</p>	<p>FIELD ACTIVITY REPRESENTATIVE</p>
<p>FUNCTIONS DETERMINED AND/OR VERIFIED</p>	<p>Kenneth Peters, LTJG., NOAA</p>	<p>OFFICE ACTIVITY REPRESENTATIVE</p>
<p>FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES</p>		<p><input type="checkbox"/> REVIEWER <input type="checkbox"/> QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE</p>
<p>INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION' (Consult Photogrammetric Instructions No. 64,</p>		
<p>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</p>	<p>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</p>	<p>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</p>
<p>FIELD I. NEW POSITION DETERMINED OR VERIFIED Enter the applicable data by symbols as follows: P - Photogrammetric Vis - Visually 5 - Field identified 6 - Theodolite 7 - Planetable 8 - Sextant</p> <p>A. Field positions* require entry of method of location and date of field work. EXAMPLE: F-2-6-L 8-12-75</p> <p>*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.</p>	<p>III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH Enter 'V-Vis.' and date. EXAMPLE: V-Vis. 8-12-75</p> <p>**PHOTOGAMMETRIC FIELD POSITIONS are dependent entirely, or in part, upon control established by photogrammetric methods.</p>	<p>NOAA FORM 76-40 (8-74)</p> <p>SUPERSEDES NOAA FORM 76-40 (2-71) WHICH IS OBSOLETE, AND EXISTING STOCK SHOULD BE DESTROYED UPON RECEIPT OF REVISION.</p> <p>☆ U. S. GPO:1975-0-665-080/1155</p>

Replaces C&GS Form 567.

NONPERSISTENT LANDMARKS FOR CHARTS
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
U.S. DEPARTMENT OF COMMERCE

<input checked="" type="checkbox"/> TO BE CHARTED <input type="checkbox"/> TO BE REVISED <input type="checkbox"/> TO BE DELETED		REPORTING UNIT (Field Party, Ship or Office) HFPS-HFP2/3	STATE Florida	LOCALITY Santa Rosa Sound	DATE 1985
The following objects HAVE <input checked="" type="checkbox"/> BEEN INSPECTED FROM SEAWARD TO DETERMINE THEIR VALUE AS LANDMARKS. OPR PROJECT NO. J288		JOB NUMBER XXXXXXXXXXXX	SURVEY NUMBER H-10207	DATUM 1927 North American	

CHARTING NAME	DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses.)	LATITUDE		LONGITUDE		METHOD AND DATE OF LOCATION (See instructions on reverse side)		CHARTS AFFECTED
		° / ' / ''	D.M. Meters	° / ' / ''	D.P. Meters	OFFICE	FIELD	
TANK	(Navarre Beach East Tank)	30 22	54.448	86 51	56.415		F-3-6-L 1984	11385
TANK	(Navarre Beach West Tank)	30 22	42.184	86 53	07.219		F-3-6-L 1984	11385
RADAR DOME	(Spherical Dome 2) L-617(87)	30 23	04.800	86 50	19.239		F-3-6-L 11/85	11385

Note: The elevation above MHW and height above ground will be obtained and a corrected form will be submitted at a later date.

L-679(86)

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

Kenneth Peters, LTJG, NOAA

Kenneth Peters, LTJG, NOAA

FIELD ACTIVITY REPRESENTATIVE

OBJECTS INSPECTED FROM SEAWARD

POSITIONS DETERMINED AND/OR VERIFIED

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

OFFICE ACTIVITY REPRESENTATIVE

- REVIEWER
- QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE

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

FIELD (Cont'd)

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

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

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.

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

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

U.S. DEPARTMENT OF COMMERCE
National Oceanic and
Atmospheric Administration
NATIONAL OCEAN SURVEY
Atlantic Marine Center
Hydrographic Field Parties
Section N/MOA233

11 March, 1986

TO: Commander, Eighth Coast Guard District
Aids to Navigation Branch

FROM: OIC, Hydrographic Field Party 2/3
439 West York St.
Norfolk, VA.

SUBJECT: Dangers To Navigation

The following dangers to navigation were located during a basic hydrographic survey of Santa Rosa Sound, Fl. They should be charted on chart #11385:

1. Shoal: Latitude 30/23/39.0 N, Longitude 86/54/06.0 W, A three foot shoal exist in an area characterized by depths of eight to ten feet and charted as eleven foot.
2. Channel Shifting: The channel between Longitude 86/55/00.0 W and Longitude 86/52/00.0 W, is about 50 meters South of the charted channel. Buoys in the area have been relocated by the Coast Guard to accurately depict location of the true channel and to indicate positions of the shoal spoil areas on either side of the channel. Three foot soundings were observed in the spoil area immediately north of the marked channel between Buoy # 106, latitude 30/23/34.8 N, Longitude 86/53/46.6 W and Santa Rosa Sound Light # 102 Latitude 30/23/38.4 N, Longitude 86/53/22.0 W.

These dangers were reported via telcom with Mr. Don Brooks on 11 March 1986.

Pacific Marine Center
1801 Fairview Avenue East
Seattle, Washington 98102-3767

FEB 27 1987

N/MOP211/DJH

Commander (OAN)
USCG
Eale Boggs Federal Building
500 Camp Street
New Orleans, Louisiana 70130-3396

ATTN: Tom Marian

Dear Commander Rots:

Office processing of hydrographic surveys H-10168, H-10172, and H-10207 has resulted in revised positions for aids to navigation presently charted in Santa Rosa Sound, Florida. These surveys were completed June 5, 1985, May 1, 1986, and May 28, 1986, respectively. The fixed aids were located to Third Order specifications while the floating aids have been located hydrographically. Both types of positions are of sufficient quality to satisfy the requirements of nautical charting. These survey positions are provided to you on the attached list for your information and possible publication in Local Notice to Mariners.

For further information please contact Cdr. Thomas W. Richards, Chief, Nautical Chart Branch, N/MOP21, telephone 206-526-6853.

Sincerely,

Robert L. Sandquist
Rear Admiral, NOAA
Director, Pacific Marine Center

Enclosure

JLS
FEB 24 1987
OH
2/21/87

FILE COPY

CODE	SURNAME	DATE	CODE	SURNAME	DATE
N/MOP2	Richards	<i>RLC</i> 2/26	N/MOP	Sandquist	<i>R</i> 2/27
N/MOP2	Mordock	<i>M</i> 2/26			
N/MOPx	Petersen				

NOAA FORM 61-2

FILE COPY



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE

Pacific Marine Center
1801 Fairview Avenue East
Seattle, Washington 98102-3767

MAR 3 1987

N/MOP211/DJH

Commander (QAN)
U.S. Coast Guard 8th District
Hale Boggs Federal Building
500 Camp Street
New Orleans, Louisiana 70130

Dear Rear Admiral Rots:

Office processing of hydrographic survey H-10207, conducted in 1985 and 1986, has confirmed that Intracoastal Waterway (ICW) channel between longitude 86°52'00"W and longitude 86°55'00"W, has shifted south approximately fifty meters. This shift was determined by comparing the survey data to the channel location as shown on chart 11385, 16th edition, dated August 24, 1985. Fixed and floating aids along this portion of the ICW, have also been moved, apparently to better mark the location and to indicate shoaling along the channel edges. The most significant shoaling has occurred between Santa Rosa Sound Light 102, at latitude 30°23'38.4"N, longitude 86°53'22.0"W, and Santa Rosa Sound Buoy 106, at latitude 30°23'34.8"N, longitude 86°53'46.6"W where channel-edge depths have been reduced to 3 feet at MLLW. In addition, the following depths between Santa Rosa Sound Buoy 101, at latitude 30°23'36.9"N, longitude 86°53'05.5"W, and Santa Rosa Sound Buoy 107, at latitude 30°23'31.1"N, longitude 86°53'59.1"W, are less than the project depth of 12 feet.

Depth (ft)	Latitude N	Longitude W
11	30°23'39.5"	86°53'06.5"
10	30°23'40.0"	86°53'09.2"
9	30°23'39.0"	86°53'14.0"
10	30°23'38.0"	86°53'17.5"
11	30°23'37.5"	86°53'21.0"
8	30°23'07.0"	86°53'33.0"
10	30°23'06.0"	86°53'34.0"
11	30°23'04.5"	86°53'38.0"
10	30°23'04.5"	86°53'55.0"

All geographic positions are based on the North American 1927 Datum. Should you require additional information concerning this survey you should contact Cdr. Thomas W. Richards, Chief, Nautical Chart Branch, N/MOP21, at (206) 526-6835.

Sincerely,

Robert L. Sandqvist
Rear Admiral, NOAA
Director, Pacific Marine Center



<u>AID</u>	<u>LAT. N</u>	<u>LONG. W</u>	<u>SOURCE</u>
Santa Rosa Sound Lt. 87	30/23/51.23	86/50/31.28	H-10207
Santa Rosa Sound Lt. 88	30/23/58.07	86/51/01.58	H-10207
Santa Rosa Sound Lt. 90	30/23/53.41	86/51/23.35	H-10207
Santa Rosa Sound Lt. 102	30/23/38.41	86/53/22.02	H-10207
Santa Rosa Sound Lt. 108	30/23/33.95	86/54/00.06	H-10207
Santa Rosa Sound Lt. 114	30/23/29.32	86/54/42.49	H-10207
Santa Rosa Sound Lt. 121	30/23/18.54	86/55/41.06	H-10207
Santa Rosa Sound Lt. 125	30/22/55.49	86/59/12.23	H-10172
Santa Rosa Sound Lt. 129	30/22/24.69	87/01/23.04	H-10172
Santa Rosa Sound Lt. 131	30/21/35.80	87/04/54.18	H-10168
Santa Rosa Sound Buoy 81A	30/23/46.9	86/49/32.1	H-10207
Santa Rosa Sound Buoy 83	30/23/45.4	86/49/56.1	H-10207
Santa Rosa Sound Buoy 84	30/23/50.8	86/50/02.0	H-10207
Santa Rosa Sound Buoy 85	30/23/48.3	86/50/13.5	H-10207
Santa Rosa Sound Buoy 88A	30/23/54.3	86/51/14.4	H-10207
Santa Rosa Sound Buoy 89	30/23/50.6	86/51/13.0	H-10207
Santa Rosa Sound Buoy 89A	30/23/48.8	86/51/23.9	H-10207
Santa Rosa Sound Buoy 91	30/23/47.7	86/51/40.3	H-10207
Santa Rosa Sound Buoy 92	30/23/48.9	86/52/01.3	H-10207
Santa Rosa Sound Buoy 95	30/23/43.2	86/52/16.6	H-10207
Santa Rosa Sound Buoy 96	30/23/43.6	86/52/33.4	H-10207
Santa Rosa Sound Buoy 97	30/23/40.5	86/52/33.7	H-10207
Santa Rosa Sound Buoy 99	30/23/38.4	86/52/50.9	H-10207
Santa Rosa Sound Buoy 101	30/23/36.9	86/53/05.5	H-10207
Santa Rosa Sound Buoy 103	30/23/35.3	86/53/21.0	H-10207
Santa Rosa Sound Buoy 104	30/23/36.2	86/53/35.4	H-10207
Santa Rosa Sound Buoy 105	30/23/33.9	86/53/35.1	H-10207
Santa Rosa Sound Buoy 106	30/23/34.8	86/53/41.6	H-10207
Santa Rosa Sound Buoy 107	30/23/31.1	86/53/59.1	H-10207
Santa Rosa Sound Buoy 110	30/23/32.7	86/54/13.4	H-10207
Santa Rosa Sound Buoy 111	30/23/28.2	86/54/26.7	H-10207
Santa Rosa Sound Buoy 112	30/23/31.4	86/54/27.2	H-10207
Santa Rosa Sound Buoy 113	30/23/26.5	86/54/42.2	H-10207
Santa Rosa Sound Buoy 115	30/23/25.1	86/54/56.5	H-10207
Santa Rosa Sound Buoy 117	30/23/23.6	86/55/09.1	H-10207
Santa Rosa Sound Buoy 119	30/23/21.8	86/55/24.5	H-10207
Santa Rosa Sound Buoy 122	30/23/24.3	86/55/43.7	H-10207

GEOGRAPHIC NAMES

FLORIDA, SANTA ROSA SOUND

Name on Survey
THREE MILES EAST OF WOODLAWN
BEACH TO LOWER PRITCHARD
LONG POINT

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 TYP

	A	B	C	D	E	F	G	H	K	TYP
FLORIDA (TITLE)										1
LOWER PRITCHARD LONG POINT	X							00549	X	2
NAVARRE								00549	X	3
NAVARRE BEACH								00549	X	4
SANTA ROSA ISLAND	X							00549	X	5
SANTA ROSA SOUND	X							00549	X	6
WILLIAMS CREEK	X							00549	X	7
										8
										9
										10
										11
										12
										13
										14
										15
										16
										17
										18
										19
										20
										21
										22
										23
										24
										25

Approved:

Charles E. Harrington
Chief Geographer - N/CG2x5

JAN 6 1987

HYDROGRAPHIC SURVEY STATISTICS

H-10207

RECORDS ACCOMPANYING SURVEY To be completed when survey is processed

RECORD DESCRIPTION		AMOUNT	RECORD DESCRIPTION		AMOUNT
SMOOTH SHEET		1	SMOOTH OVERLAYS: POS., ARC, EXCESS		7
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	8				
CAHIERS					
BOXES					
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			2593
POSITIONS REVISED	—	—	2
SOUNDINGS REVISED	—	—	126
CONTROL STATIONS REVISED	—	—	
	TIME-HOURS		
	VERIFICATION	EVALUATION	TOTALS
PRE-PROCESSING EXAMINATION	—	—	—
VERIFICATION OF CONTROL	—	—	—
VERIFICATION OF POSITIONS	62.0	—	62.0
VERIFICATION OF SOUNDINGS	122.0	—	122.0
VERIFICATION OF JUNCTIONS	—	—	—
APPLICATION OF PHOTOBATHYMETRY	—	—	—
SHORELINE APPLICATION VERIFICATION	—	—	—
COMPILATION OF SMOOTH SHEET	68.5	—	68.5
COMPARISON WITH PRIOR SURVEYS AND CHARTS	—	19.0	19.0
EVALUATION OF SIDE SCAN SONAR RECORDS	—	—	—
EVALUATION OF WIRE BRAGS AND SWEEPS	—	—	—
EVALUATION REPORT	—	20.0	20.0
GEOGRAPHIC NAMES	—	—	—
OTHER: DIGITIZING	—	—	11.0
USE OTHER SIDE OF FORM FOR REMARKS	TOTALS	252.5	39.0

Pro-processing Examination by J. Wilder	Beginning Date 7/7/86	Ending Date 8/12/86
Compilation of Final Data by M. Sanders	Time (Hours) 252.5	Ending Date 3/25/87
Verification Check by J. Stringham, J. Green, B. Olmstead	Time (Hours) 64.5	Ending Date 4/19/87
Evaluation and Analysis by I. Almacer	Time (Hours) 39.0	Ending Date 4/9/87
Inspection by D. Hill	Time (Hours) 2	Ending Date 4/30/87

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

TIDE NOTE FOR HYDROGRAPHIC SHEET

DATE: 07/21/86

Marine Center: Pacific

OPR: J-288

Hydrographic Sheet: **H-10207**

Locality: Santa Rosa Sound, Florida

Time Period: November 13, 1985 - April 23, 1986

Tide Station Used: 872-9679 East End, Santa Rosa Sound, FL

Plane of Reference (Mean Lower Low Water): 3.61 ft.

Height of Mean High Water Above Plane of Reference: 1.3 ft.

Remarks: Recommended Zoning:

Zone direct

for Brett C. ...
Chief, Tidal Datum Quality
Assurance Section

APPROVAL SHEET

For

SURVEY H-10207 (HFP-10-7-85)

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

PACIFIC MARINE CENTER
EVALUATION REPORT
H-10207

1. INTRODUCTION

H-10207 was accomplished by the Atlantic Hydrographic Field Parties 2 and 3 in accordance with the following project instructions:

OPR-J288-HFP-84, dated September 11, 1984
Change Number 1, dated October 31, 1984
Change Number 2, dated October 8, 1985
Change Number 3, dated December 11, 1985

This is a basic hydrographic survey along Santa Rosa Sound covering the area approximately three miles east of Woodlawn Beach at longitude 86°57'00"W to Lower Pritchard Long Point. The Intracoastal Waterway through the sound is marked with buoys, lights and daymarkers for safe navigation. These aids have characteristic yellow markings that distinguished them from other aids to navigation located along the sound. The north shore is mostly lined with privately maintained piers, while the south shore is still undeveloped sandy beaches protected as the Gulf Islands National Seashore. The area generally consists of sand and mud with depths ranging from 0 to 20 feet.

Unverified actual tides from tide station 872-9679 East End, Santa Rosa Sound were used during field processing. Tide correctors used for the final reduction of soundings reflect approved hourly heights zoned from the same tide station.

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 correctors used in this survey were based on the daily system calibration checks.

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. A position listing of control stations and aids to navigation located within the limits of the survey was also included as an attachment to the report. A copy of the Horizontal Control Report for OPR-J288-HFP-85 was not available during office processing.

Positions of horizontal control stations used during hydrography are either published or field values obtained from Third-Order (Class 1) triangulation observations. All geodetic positions are based on the North American Datum of 1927.

The source of the year of establishment for control stations shown on the smooth sheet are the field records and NGS published data. These years are subject to change pending certification of the data by NGS.

The applicable shoreline manuscript is TP-00549, compiled at the scale of 1:20,000 and photographically enlarged to 1:10,000. This map is registered Class III, and originates from photography dated January, February, March and April 1978. The photographic enlargement supplied by headquarters contained slight distortions. These were compensated for by shifting the enlargement as required to bring the latitude, longitude grids into agreement.

Shoreline and alongshore features were verified by the hydrographer. No significant changes to shoreline were noted in the field other than the removal of some previously charted features, particularly old piers and the construction of new ones. On this survey, the hydrographer generally documented only the position of the offshore end of each new pier. The orientation of the pier as shown on the smooth sheet was obtained directly from the final field sheet without supporting position information. These features are adequately described in section L of the hydrographer's report. All newly located features are shown in red on the smooth sheet.

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 correctly plotted.

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 OORDER, except as noted in the Preprocessing Examination Report, dated July 8, 1986.

5. JUNCTIONS

H-10207 junctions with the following surveys:

Survey	Year	Scale	Area
H-10172	1985-86	1:10,000	West
H-10209	1986	1:10,000	East

Comparison with H-10209 is good; however, soundings were transferred from this survey to delineate depth curves and to portray shoaler information within the junction area. The junction has been adequately effected.

H-10172 is still in processing and therefore junction comparisons were made using a preliminary sounding plot. Soundings were transferred from this survey to delineate depth curves within the junction area. Curves are in agreement and the junction has been adequately effected.

6. COMPARISON WITH PRIOR SURVEYS

H-5705 (1935), 1:10,000

H-5729 (1935), 1:10,000

H-5705 and H-5729 provide the basic survey coverage for this portion of Santa Rosa Sound. Comparison with these prior surveys is considered satisfactory. In general, the present survey depths agree within a foot with the prior surveys of 1935. There are, however, some areas where significant changes have been noted which are adequately described in section K and L of the hydrographer's report.

There are no AWOIS items originating from the prior surveys applicable to this survey.

H-10207 is adequate to supersede the prior surveys within their common areas.

7. COMPARISON WITH CHART

Chart 11385, 16th Edition, dated August 24, 1985; scale 1:40,000

This is a later chart edition than that specified in the Project Instructions but was the most recent edition during the time of the survey.

a. Hydrography - Charted information originates from the prior surveys mentioned in Section 6 of this report and from other miscellaneous sources. A detailed comparison of the present survey with charted features is contained in section L of the hydrographer's report supplemented as follows:

The following piers and piles charted along the northern shore of the sound 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 the chart compiler revise the affected charts as considered appropriate.

<u>Latitude N</u>	<u>Longitude W</u>	<u>Charted Feature</u>
30°24'13.0"	86°50'12.5"	Pier ① on Smooth Sheet and T10059 mcr
30°23'57.0"	86°52'09.5"	Pier } 1-rem
30°23'56.5"	86°52'10.5"	Pile } 1-rem
30°23'56.5"	86°52'08.5"	Pile } 1-rem
30°23'52.0"	86°53'00.5"	Pile } now 50yds apart
30°23'53.5"	86°53'01.0"	Pile } now 50yds apart
30°23'54.5"	86°53'01.5"	Pile } now 50yds apart
30°23'44.5"	86°55'54.5"	Pile
30°23'44.0"	86°56'01.0"	Pile

The two (2) islets charted in the vicinity of latitude 30°23'44", longitude 86°53'34", originating from unknown sources, were not found. This survey only shows an indication of shoaling in the area. It is recommended that the charted islets be deleted and the area be charted according to the present survey.

There are no AWOIS items originating from miscellaneous sources applicable to the survey.

With the exceptions noted above, H-10207 is adequate to supersede charted hydrography within the common area.

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

A Danger to Navigation Report (copy appended) concerning an uncharted shoaling and repositioning of buoys by the U.S. Coast Guard to indicate the present location of the channel and shoal spoil areas was sent by the hydrographer to the 8th Coast Guard District in New Orleans, Louisiana. A letter (copy appended) to confirm the present shifting of the Intracoastal Waterway Channel and shoaling noted on this survey during office processing was transmitted by the Director, Pacific Marine Center on March 3, 1987.

b. Controlling Depths - The charted channel and aids between longitudes 86°52'00"W and 86°55'00"W are plotted approximately 50 meters south of the surveyed positions. See section L of the hydrographer's report and the appended copies of Danger to Navigation letters for discussion on the mis-positioning of the charted channel and marking aids. Considering the charted position of the channel and the aids, depths of 8 to 11 feet were noted along the edges of the channel. The project depth for this channel is 12 feet. Mariners are presently advised through a charted note that shoaling may occur in some of these areas between maintenance dredging operations.

c. Aids to Navigation - There are twenty-seven (27) floating aids located within the limits of this survey. Three (3) landmarks and nine (9) fixed aids to navigation were also located during this survey. Geographic positions of fixed aids were determined to Third-Order accuracy standards as required by the project instructions. All navigational aids are found to be in good condition and adequately serve their intended purpose. More detailed

information regarding these aids is contained in section N of the hydrographer's report and on NOAA form 76-40, Nonfloating Aids or Landmarks for Chart, included with this report. A revised position listing of these aids was provided by a letter from the Director, Pacific Marine Center to the 8th Coast Guard District dated February 27, 1987 (copy appended).

The hydrographer states that the charted 50-foot vertical clearance of the northern Navarre Causeway bridge at latitude 30°23'49.0"N, longitude 86°51'48.0"W, and the clearance of the southern Navarre Causeway bridge at latitude 30°23'14.0"N, longitude 86°51'45.0"W was determined by field measurements. There are insufficient field records to determine if the clearances are referenced to mean high water. It is recommended that the clearance of the northern span remain as charted and the 9-foot clearance of the southern span be considered for charting as appropriate.

An uncharted submerged cable running across the sound along the west side of Navarre Causeway was noted during this survey. The area was marked by cable crossing signs along the edge of the causeway.

There are no charted pipelines or overhead cables located within the limits of this survey.

8. COMPLIANCE WITH INSTRUCTIONS

H-10207 adequately complies with the project instructions noted in section 1 of this report.

9. ADDITIONAL FIELD WORK

This is a good basic hydrographic survey; however, additional field work may be required on a non-priority basis to determine the status of the charted piers and piles discussed in section 7 of this report.



Isagani A. Almacén
Cartographer

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



Dennis Hill
Chief, Hydrographic Section

ATTACHMENT TO DESCRIPTIVE REPORT FOR H-10207

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.

Thomas W. Rielma 4-24-87
Chief, Nautical Chart Branch (Date)

CLEARANCE:

N/MOP2:LWMordock

SIGNATURE AND DATE:

Raymond Mordock 4-24-87

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.

Robert L. Saufert 4-24-87
Director, Pacific Marine Center (Date)

ADDENDUM TO EVALUATION REPORT FOR H-10207

The Evaluation Report, Section 2, Control and Shoreline is supplemented as follows:

In accordance with N/CG2 memorandum, dated December 12, 1986, an NAD 83 datum adjustment tick has been added to the smooth sheet and accompanying overlays. The adjustment value was determined by N/CG121 and amounts to +0.718 seconds of latitude and -0.142 seconds of longitude for the geographic area common to this survey (NAD 27 position to NAD 83 position). Computed geographic positions contained in the survey digital file remain on NAD 27.

Thomas R. ... 6/23/87
Chief, Nautical Chart Branch (Date)

CLEARANCE:

N/MOP2:LWMordock

SIGNATURE AND DATE:

... 6/23/87

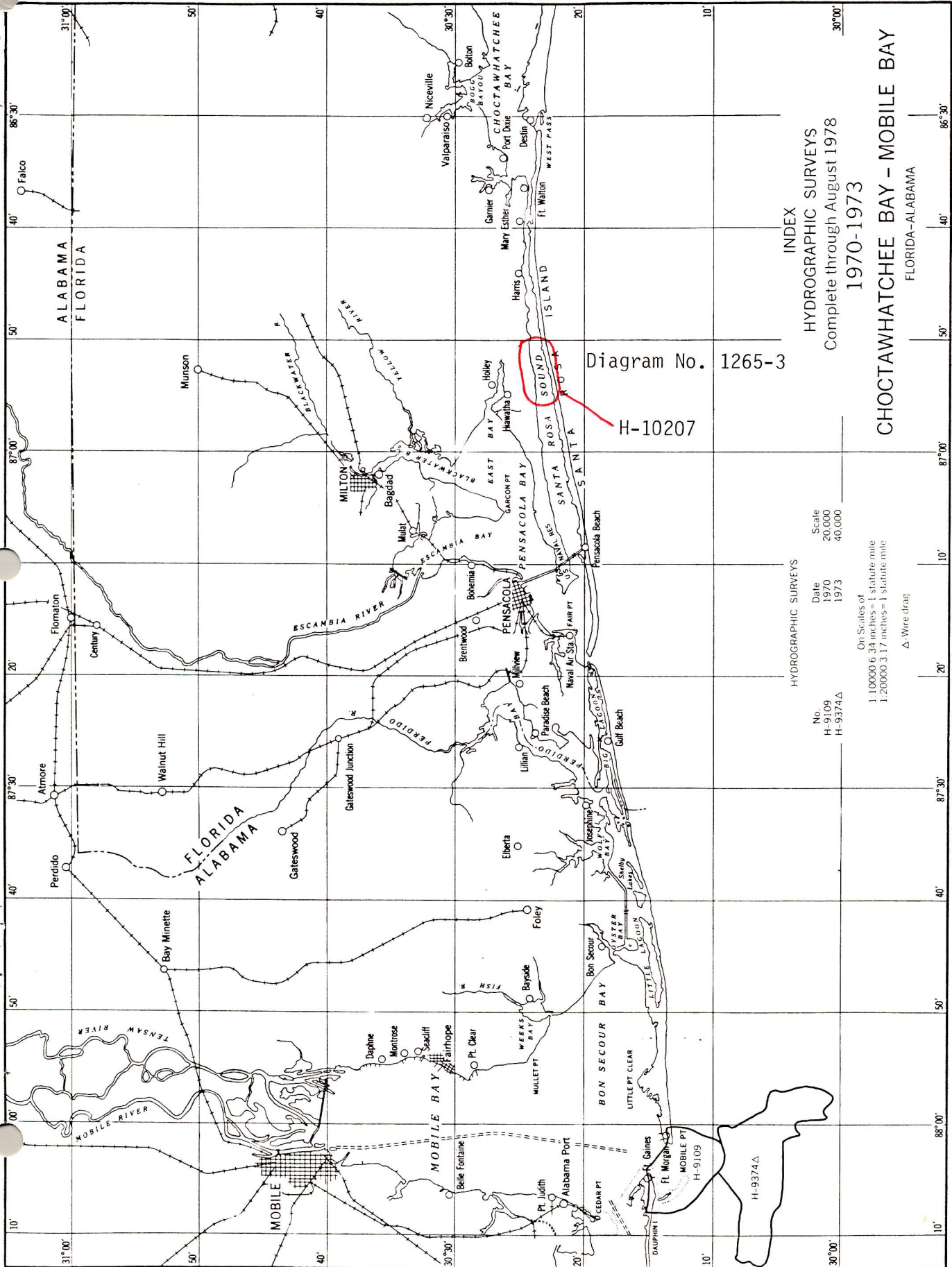
Approved:

Robert L. ... 6.23.87
Director, Pacific Marine Center (Date)

DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration

National Ocean Survey
Rockville, Maryland

Hydrographic Index No. 85 F



INDEX
HYDROGRAPHIC SURVEYS
Complete through August 1978
1970-1973
CHOCTAWHATCHEE BAY - MOBILE BAY
FLORIDA-ALABAMA

Diagram No. 1265-3
H-10207

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

MARINE CHART BRANCH
RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-10207

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	4/25/88	<i>Jeffrey Shaver</i>	Full Part Before After Marine Center Approval Signed Via Drawing No. 19
			Full Part Before After Marine Center Approval Signed Via Drawing No.
			Full Part Before After Marine Center Approval Signed Via Drawing No.
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