9943

Diagram No. 1265-3

NOAA FORM 76-35A

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

DESCRIPTIVE REPORT

Type of Survey Hydrographic Field No. HSB-20-2-81 Office No. H-9943
LOCALITY
State Florida
General Locality Gulf of Mexico
Locality Pensacola Beach
19 81
CHIEF OF PARTY LCDR G.W.Jamerson
LIBRARY & ARCHIVES
October 3, 1984

☆U.S. GOV. PRINTING OFFICE: 1980--766-230

11384-

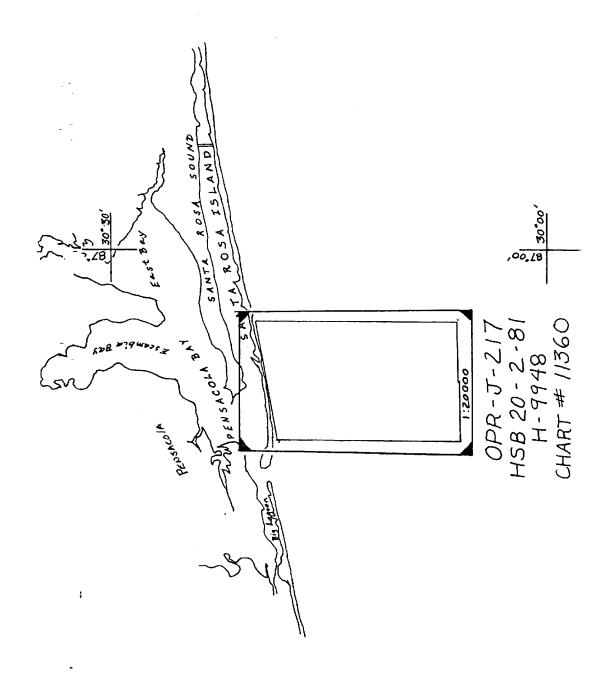
To record application See "Record of Application to Charles"

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* Data removed from the Descriptive Report and filed with the field records.

NOAA FORM 77-28 U.S. DEPARTMENT OF COMMERCE (11-72) NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION	RISGISTER NO.
HYDROGRAPHIC TITLE SHEET	н–9943
INSTRUCTIONS - The Hydrographic Sheet should be accompanied by this form,	FIELD NO.
filled in as completely as possible, when the sheet is forwarded to the Office.	HSB-20-2-81
State Florida	
General locality Northwest Coast of Florida Gulf of Me	Kico
Locality South of Santa Rosa Island Pensacola B	each
Scale 1:20,000	yey Jun 2,1981 - Dec 8, 1981
Instructions dated August 3, 1979 Project No.	OPR-J217
Vessel NOAA Launch 1257	
Chief of party Lt. Cdr. George W. Jamerson, NOAA	V
Surveyed by Lt. Cdr. A. A. Armstrong, NOAA	· · · · · · · · · · · · · · · · · · ·
Soundings taken by echo sounder, 1000 1000 Ray theon DE	T-723D
Graphic record scaled by AA, GL, GH, MM, GM	·
Graphic record checked by AA & Verification Branch (Amc)	Field Sheet PDP8/e
Protracted by NA Automa	
Verification by J.S. Brookland	
Soundings in ** feet at *** Mean Lower Coast	Low Water Datum
REMARKS: AA - Lt. Cdr. A. A. Armstrong	
GL - George Lloyd	
	AUDOIS MSM 1/8/85
MM - Maria Mangual	. W. W. W. M. 1/e/ps
GM - Gary Merrill	
	1
STANDARDS CKID 10-	-10-84
	y
	1



DESCRIPTIVE REPORT TO ACCOMPANY HYDROGRAPHIC SURVEY H-9943 HSB-20-2-81

Scale 1:20,000 Chief of Party: Lt. Cdr. George W. Jamerson Officer-in-Charge: Lt. Cdr. Andrew A. Armstrong, III Hydrographic Surveys Branch, Hydrographic Field Party #1 Launch 1257

A. PROJECT

This survey was accomplished under Project Instructions OPR-J217, dated August 3, 1979, and amended by Change No. 1 dated December 22, 1980 and Change No. 2 dated January 12, 1981.

B. AREA SURVEYED

The area surveyed was South of Santa Rosa Island, vicinity of Pensaçola Beach, Florida and bounded by the following points:

Lat. 30°20'86"N, Long. 87°05'36"W Lat. 30°06'18"N, Long. 87°05'38"W Lat. 30°08'02"N, Long. 87°15'24"W Lat. 30°18'42"N, Long. 87°15'24"W

This survey was conducted from June 2, 1981 to December 28, 1981 (J.D. 153 to 342) inclusive.

C. SOUNDING VESSEL

All soundings obtained on this survey were obtained from NOAA Launch 1257 (EDP #1257). All survey records are annotated with the vessel number 1257.

D. SOUNDING EQUIPMENT AND CORRECTIONS TO ECHO SOUNDINGS

The following Raytheon fathometer equipment was used during the survey:

JD 153 - 342: Recorder Model # DE723-D Serial # 2042 ECU Model #DE723-D Serial # 37009 Digitizer Model #DE723-D Serial # 2772

No unusual problems were encountered with this equipment. The fathometer was monitored continuously while sounding and was under constant adjustment to insure that no initial corrections were necessary.

Settlement and squat tests on Launch 1257 were run on May 18, 1981 at Pensacola Bay Entrance. The results of these tests are included in the Appendix of this report. Settlement and squat corrections have been applied to the field sheet as dynamic draft on the corrector tapes.

Velocity and instrument corrections were determined by barcheck and TDC casts. Since several adjacent survey sheets were being run at the same time with the same equipment, barchecks and casts were combined. Common velocity tables, compiled by date, were used for all sheets. Field sheets were plotted using approximate velocity curves developed by moving the TDC curves to coincide with and extend the barcheck curves. Final velocity curves and tables were constructed from the TDC curves. Instrument correction is shown on the TRA abstracts and applied by TC/TI. The lengths of the line on the bar were checked on February 26, 1981 and December 15, 1981. The results of this inspection showed that no corrections were necessary. The TDC used to obtain velocity corrections was a Martek Instrument Model 101-10, Serial # 477. — See section 4 of the Evaluation Report.

E. SURVEY SHEETS

The field sheets were prepared in the field 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, crosslines, significant developments and splits are plotted on the smooth field sheets while other developments and splits, bottom samples, prior survey soundings, juntions soundings and charted soundings are shown on overlay sheets. Projection parameter tape listing for the field sheets is included in the Appendix of this report. The final smooth sheet and verification of this survey will be accomplished at the Atlantic Marine Center on the Harris/7 computer and the Xynetics 1201 plotter.

F. CONTROL STATIONS

Control stations used during this survey were either existing third order or better geodetic control stations published by NGS or were established by HFP-1 to third order or better 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. Horizontal control data were submitted via the NGS computer terminal system. Positions can be verified at Hydrographic Surveys Branch of AMC.

G. HYDROGRAPHIC POSITION CONTROL

Equipment - Control for this survey was a Hasting-Raydist DR-3 system operating in the range/range mode.

Shore station equipment - Left Station: Green Raydist Model AA-60, Serial Numbers 69:JD153,154 and 68:JD 155-342. Right Station: Red Raydist Model AA-60, Serial Number 84:JD 153-342

Launch equipment: Navigator Model ZA 67B, Serial Number 67:JD 153-154, 177-342 and 109:JD 166-176. Antenna loading model QB 52. Coil Serial Number 81:JD 153-342. Transmitter Model TA96 Serial Number 87:153-154, 175-342.

The system frequency was 3306.40. The left station antenna was a 100-foot aluminum tower. The right station antenna was a 120-foot tower previously used as a Loran A antenna. The launch antenna was a 35-foot whip located over the fathometer transducer.

G. HYDROCRAPHIC POSITION CONTROL

Problems encountered with the use of this equipment were very limited. Some units failed during operation, but they were replaced immediately with spares and repaired by Hastings-Raydist factory personnel. Thunderstorms, as expected, occasionally disrupted the signal. The control equipment was calibrated by three point sextant fixes with check angles. Calibrations were taken before and after each period of hydrography unless the Raydist signal was lost. A strip chart recorder was monitored between calibrations to check for lane gains or losses.

H. SHORELINE

No shoreline was delineated on this survey. Shoreline was transferred to the field sheet from Chart 11382, blown up to the scale of the survey. This was done as a visual aid for planning purposes. The charted shoreline seemed to correspond well with the actual shoreline as observed from the survey launch. — See section is of the Evaluation Report.

I. CROSSLINES

Crosslines constitute 9% of the mainscheme hydrography. Ninety-seven percent (97%) of the crossings agree within one (1) foot. zNo soundings are in disagreement at crossing by more than four (%) feet. The reasons for the disagreement of sounding at crossline is due to the irregular character of the bottom in these areas.— Concur

J. JUNCTIONS

This survey junctions with the following surveys:

- 1. H-9928 to the east;
- 2. H-9798 to the south;
- 3. H-9954 to the south; (in progress)
- 4. H-9968 to the west;
- 5. H-9971 to the west; (in progress)

One hundred percent (100%) of these junction soundings agree within one foot when compared with the current survey. All the junctions except that with H-9798 are non-overlap junctions since they are contemporary surveys by the same vessel and same methods.— See section 5. of the Evaluation Report,

The hydrographer recommends that in the junction areas, the soundings from the present survey be charted and that the depth curves be smoothed between the two sheets, favoring the shoaler of any two overlapping soundings.

Κ. COMPARISON WITH PRIOR SURVEYS

This survey was previously covered by the following surveys:

- H-6635 (1940), 1:20,000 scale H-6636 (1940), 1:20,000 scale
- H-6555 (1940), 1:40,000 scale
- H-4139 (1920), 1:80,000 scale

Comparison showed that the 1940 surveys H-6635 and H-6636 agree quite well with the present survey. The differences noted are small and are not systematic, but most occur within a mile from the shore and indicate that the sandy bottom near shore in this area is active and probably changes under the influence of current and waves. Farther offshore, the 1940 survey H-6555 agrees well for the most part, but the use of buoys for control on the prior survey is probably responsible for the difference in location of some features and depths between the two surveys. 1919-1920 survey H-4139 shows a similarity of trends, but the smaller scale and weakness of visual control several miles from shore are probably responsible for variations in depth and feature locations. — See section 6. of the Evaluation Report.

When discrepancies exist between present and prior surveys, it is recommended that the soundings from the present survey supersede those of the prior survey. - Concur

Prior survey H-6635, H-6555, and H-4139 are not being returned with this survey as they are required for comparison with other surveys currently in progress.

COMPARISON WITH THE CHART - See section 7. of the Evaluation Report.

this survey:

The following presurvey review items were investigated during

Submerged dougerous wrack, PA

Latitude 30°18'24"N long Lude 57°10'12"W

Originals with LNM 22/1980 - a 2044 pleasure craft.

No evidence of PSR item 331 was detected while running 1200126 mon lines in the area. No further investigation was required by the project instructions.

No evidence of PSR item 318 Was detected While running.

No evidence of PSR item 318 Was detected While running. lines in the area. Although no further investigation was required by the project instructions, a visual lookout was posted 180% on the box and 20 m springed lines were mun through the area. The on the bow and 20 m spaced lines were run through the area. The water was clear enough to see the bottom, and nothing was found. The lines claimed run are not included in the survey records. Depths in the area are 254.

The hydrographer recommends that both features remain as charted. CAlthough not part of this survey, PSR item 317 in Pensacola Bay has been examined from shore. It remains in about the same condition described in the 1976 CAS. - Recommend PSR Nem 317 remain as presently charted.

This survey was compared as the survey progressed with Chart 11383, 37th Ed, 1980 and with Chart 11382, 25th Ed, 1979 and with Chart 11382, Edition of 1977, blown up to the scale of the survey. Several fish havens and a noteworthy wreck are located within the survey limits.

A fish haven known locally as the "Liberty Ship" was located on JD 341, 300 m NW of the charted position at Lat. 30 16'21.3", Long. 87 09'33.0". Our only lead line was severed on this sunken "Liberty Ship". The charted position should be changed to the new position.— The shealest sounding obtained is 69ft. (between 2533-2539)

A fish haven known locally as the "Casino Rubble" made from the rubble of a demolished building and charted along the 60-foot contour between Long. 87 07' and 87 08', was investigated on JD 341. No significant obstructions were found in the area.

A fish haven known locally as the "Bridge Rubble" made from the concrete rubble of the old Pensacola Beach Bridge center span was located on JD 342 at Lat. 30 14'20,3", Long. 87 12'90.2". This haven is not presently charted. The hydrographer recommends charting as "Fish Haven". It was not possible to obtain an "absolute least depth".—Shoalest sounding obtained is 57 ft. (pos 353) also obtained a 67ff sounding (2611-2612)

A fish haven known locally as the "Barges" was located on JD 342 as charted at Lat. 30°17'27"; Long. 87°13'16". This haven apparently 10 consists of two sunken barges. Should sound is 2344.

There There by H. 9466 WD(1974)

A fish haven charted at Lat. 30°17.2', Long. 87°07.6' was not detected while running sounding lines in the area. No local information as to its nature or exact location was available. This haven should remain as charted.— concur

A wreck known locally as the "Russian Freighter" was located on JD 342 at Lat. 30°11'20", Long. 87°13'03". This position agrees with the charted position. It was impossible to obtain a least depth. Soundary obtained is 66ff.

A previously uncharted area of 60-foot depth was detected at Lat. 30°16'09", Long. 87°07'09". This feature should appear on V future editions of the chart.— Concur

Several small, but suspicious echoes were noted on the fathograms in the course of the survey. These items were investigated on JD 341 and 342 by running closely spaced lines across the area at reduced speed and using a wide beam transducer. The lines were plotted on the work sheet using the line-plot option of RK112. Nothing was found during these investigations and the data were not plotted on the final sheet.

One interesting feature was discovered in 115-foot of water on JD 341 at about Lat. 30 08.51, Long. 87 11.01. The feature sits in a deep trough and rises abruptly in two peaks of about 10-foot each. The item does not constitute a hazard, but may be a wreck.

No new hazards to navigation were discovered during this survey. — A Notice to Mariners was issued during processing.

An interesting feature on the Sathogram but is not a danger and does not merit charting. The Sathogram trace does not look as most wrechs appear on the Sathogram.

M. ADEQUACY OF SURVEY

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

hydrographic

N. AIDS TO NAVIGATION

No fixed or floating aids to navigation, cable crossings or bridges are located within the limits of this survey.

O. STATISTICS

Number of positions	
Nautical miles of sounding line	1,130.1
Nautical miles of crossline	99.1
Nautical miles of development	34.1
Total miles of hydrography	1,263.4
Number of bottom samples	112
Number of barchecks	14
Number of TDC casts	5

P. MISCELLANEOUS

Loran C comparisons were conducted by recording Loran values simultaneously with Raydist rates at bottom sample sites. The comparison forms have been submitted to CAMI.

A copy of the smooth sheet should be sent to:

Gulf Islands National Seashore P. O. Box 100 Gulf Breeze, FL 32561 Attn: Mr. Buck Thackery, Resource Manager

Q. RECOMMENDATIONS

See Sections J, K, L, M and P 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
RK112	Range-range Real Time Hydroplot	9/11/80
RK201	Grid, Signal, and Lattice Plot	4/18/75
RK211	Range-range Non-real time plot	2/02/81
RK300	Utility computations	10/21/80
RK330	Reformat and Data Check	5/04/76
PM360	Electronic Corrector Abstract	2/02/76
RK407	Geodetic Inverse/Direct Computatio	n 9/25/78
AM500	Predicted Tide Generator	11/10/72
RK500	Layer Corrections for Velocity	5/10/76
RK561	H/R Geodetic Calibration	2/19/75
AM602	Extended-line oriented editor	5/20/75

S. REFERENCE TO REPORT

Refer to the following descriptive reports: H-9928 to the east, H-9798 to the south, H-9954 to the south (in progress), H-9968 to the west and H-9971 to the west (in progress).

Respectfully submitted,

Lt. Cdr. Andrew A. Armstrong

OIC, HFP-1, NOAA

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APPROVAL SHEET SURVEY H-9943 (HSB-20-2-81)

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

Direct daily supervision was not given by me during the field work.

Approved and forwarded,

Les. W. Jamenson
George W. Jamerson

Lt. Cdr., NOAA

Chief, Hydrographic Surveys Branch

SIGNAL TAPE LISTING OPR J217 HSB 20-2-81 H-9943 VESNO 1257

106	7	30	51	353Ø5	08 7	10	56109	139	0000	000000	GULF BREEZE TANK, 1981 *
107	7	ЗØ	19	07174	Ø87	15	18724	139	0000	000000	PARK RANGERS AND
109	7	30	19	02194	Ø87	15	26539	250	0004	000000	FIXED NO. 2 1942
110	7	3Ø	19	18469	Ø87	17	06198	250	0018	000000	(1942) 1981 * H-73-FL-80, 1981 * (Add position)
114	7	30	20	45346	Ø87	18	292Ø5	139	0000	000000	PENSACOLA LIGHT-
120	3	30	19	30907	Ø87	18	46773	250	0008	000000	HOUSE CENTER, 1934 *** FORT MCREE (field position)
900	7	29	40	<u> </u>	Ø85	21	26851	250	0000	330640	LEADING LIGHT, 1981 * CAPE SAN BLAS
902	7	30	19	15517	Ø8 7	13	24115	250	0000	330640	H*62*Ø1, 1980 ** /Field position
908	7	30	22	45Ø75	Ø86	52	47698	25Ø	0000	33Ø64Ø	(PENSACOLA BEACH) H*4*FL*77, 1980 ** (NAVARRE) (field position)

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Control located by:

* Hydrographic Surveys Branch

** Operations Division

*** National Geodetic Survey

All control recovered by HFP1 - 1981

10 17 HOLD 1 10 10	1				11.5	ש די א בי מ		ODIGINATING AC	TTIVITY
(8-74) Replaces C&GS Form 567.	orm 567.	LAND	LANDMARKS F	FOR CHARTS	RTS	TMOSPHER	NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION KS FOR CHARTS	X HYDROGRAPHIC PARTY GEODETIC PARTY	RTY
X TO BE CHARTED	ED REPORTING UNIT	STATE		LOCALITY			DATE	COMPILATION ACTIVITY	VITY
	ED HSB-HFP1	Florida	la	Santa	Rosa	Island	12/81	COAST PICOT BRANCH	20 I p
The following objects	HAVE [X] HAVE NOT	been inspected from seaward to determine their value as landmarks	ward to dete	rmine their	value as l	andmarks.		(See reverse for responsible personnel)	ble personnel)
OPR PROJECT NO.	JOB NUMBER	SURVEY NUMBER	1927	North	Americ	can	METHOD AND DATE OF LOCATION	OF LOCATION	
J217	NA H-9	H-9943		POSITION	2	ì	(See instructions on reverse side)	n reverse side)	CHARTS
	DESCRIPTION		LATITUDE		LONGITUDE	UDE		-	AFFECTED
CHARTING	Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses.	d to nevigation. (cable, in parentheses)	о	//	• \	// D.P.Meters	OFFICE	FIELD	-
,			(1)	56.55762		49.8331	1 states oft,	ა	11282
TANK	Fair Point Tank		30 21		87 12		the smooth sheet	2/27/81	11382
× :			IKY	26.339	- 	51.599	Considered & platted	F-3-6-L	11383
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			I (n	55.438		29.041	Considered & plotted	F-3-6-I	11383
TANK	Pensacola Beach Tank		30 19		87 08		3rd Order	3/78	11382
	l-leg Tank in Gulf	Breeze, FL	}	35.305	;	56.109	off the	F-3-6-L	11378 11382
TANK	(Gulf Bræze	於	30 21		87 10		Smooth Sheet	10/19/81	11383
	re guyed radio ante	loc	ם.	08.352	1.	40.186	off the	F-3-6-L	11378
TOWER	at FL. Marine Patroi Or of Pensacola Bay Bridge	dre, N. end	30 25		87 11		Smooth sheet	2/22/82	11383
			те-	6.994	T.	49.545	off the	F-6-V Triang Recov	11378
TANK	Water tank in Pensacoia (Pensacola Water Tank N	New)	30 25		87 12		Smooth sheet	10/19/81	11383
	o Tower on top of	Southern	0	03.20		03.35	24 20	Existence Ver-	11378
MICRO	Bell Telephone Blag. I	Presently	30 25		87 13		Smooth sheet	Pos. from CMD	11383
				55.10		11.05	off the	76-40 9/27/79	11378
TANK T	Water Tank located bel	benind fire	30 24		87 13		Smooth sheet	ified 12/15/81	11383
								Pos. from CMD 76-40 9/27/79	
					·				
	NOTE: The landmarks listed all nonfloating aids transmitted to Enoto	on this form and landmarks Div. C3421.	are t	in et	he vici 1217 - G	inity of cape Sar	Survey H-9943. A Blas to Mobile Pt.	A complete 1 Pt. has been	isting of
No Corr -	4-1038(83), 2-1483(82)	, 1. 9/4/82)	!			•		: i

A. Fleid positions require entry of method of		I. NEW POSITION DETERMINED OR VERIFIED Enter the applicable data by symbols as F - Field C - Located Vis - Visually	OFFICE 1. OFFICE [DENTIFIED AND LOCATED OBJECTS Enter the number and date (including month, day, and year) of the photograph used to identify and locate the bject. EXAMPLE: 75E(C)6042 8-12-75	INSTRUCT	FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES	Ecollions DETERMINED AND/OR VERIFIED Lt. Cdr.	OBJECTS INSPECTED FROM SEAWARD Lt. Cdr.	TYPE OF ACTION	
**PHOTOGRAMMETRIC FI entirely, or in pa by photogrammetric	=	s as follows: When a landmark or angulation station Rec. with date of	month, B.	INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION' (Consult Photogrammetric Instructions No. 64,		r. A.A. Armstrong	r. A.A. Armstrong	NAME	RESPONSIBLE PERSONNEL
75 ELD POSITIONS are dependent rt, upon control established methods.	EXAMPLE: Triang. Rec. 8-12-75 POSITION VERIFIED VISUALLY ON PHOTOGRAPH Enter 'V+Vis.' and date. EXAMPLE: V-Vis.	ATION RECOVERED or aid which is also a tri- on is recovered, enter 'Triang. of recovery.	(Cont'd) 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		REVIEWER QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE	OFFICE ACTIVITY REPRESENTATIVE	PHOTO FIELD PARTY MYDROGRAPHIC PARTY GEODETIC PARTY OTHER (Specify)	· ORIGINATOR	

.OK, SEG ⇔ANMS

R JOB TO RUN OR MENU TO DISPLAY PROGRAM MENU MP011
THIS IS THE ANM SYSTEM MAILBOX
ENTER CODE OR PERSON MESSAGE IS FOR (20 CHAR MAX)
DMAHTC/NYS
R NAME OR ORGIN OF MESSAGE (20 CHAR MAX)
MBH-N.MOA2321
R REFERENCE, IF ANY OR RETURN (50 CHAR MHX)
JPR-217 HYDROGRAPHIC SURVEY H-9943(1981)

R MESSAGE TEXT (69 CHARACTERS PER LINE)
W THE LAST LINE OF YOUR MESSAGE
NTER THE WORDS: MESSAGE STOP
DURING A HYDROGRAPHIC SURVEY CONDUCTED BY THE NOAA LAUNCH
1257, TWO UNCHARTED OBSTRUCTIONS WERE LOCATED AS FOLLOWS:

- 1. AN UNIDENTIFIED OBSTRUCTION WAS FOUND BY ECHO SOUNDER AT LATITUDE 30/14/20 N, LONGITUDE 87/12/00 W. NO LEAST DEPTH WAS DETERMINED.
- 2. AN UNIDENTIFIED OBSTRUCTION WAS FOUND BY ECHO SOUNDER AT LATITUDE 30/14/15 N, LONGITUDE 87/12/04 W. NO LEAST DEPTH WAS DETERINED.

THESE AFFECTED NOS, NOAA S"CHARTS 11360 AND 11382. MESSAGE STOP

MESSAGE ENTERED IN THE SYSTEM MAILBOX EM ASSIGNED MESSAGE NUMBER 84-000495 REE NAME... SPOOL FILE IS PRNT01 R JOB TO RUN; MENU TO RE-DISPLAY MENU OR SIGN OFF TO TERMINATE DOCCOOM DATE: February 25, 1982

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

TIDE NOTE FOR HYDROGRAPHIC SHEET

Processing Division: Atlantic Marine Center:

Hourly heights are approved for

Tide Station Used (NOAA Form 77-12): 872-9678 Navarre Beach, FL

Period: June 2-December 8, 1981

HYDROGRAPHIC SHEET: H-9943

OPR: J217

Locality: Offshore Santa Rosa Island, Florida

Plane of reference (mean lower low water): 25.64 ft.

Height of Mean High Water above Plane of Reference is 1.38 ft.

REMARKS: Recommended Zoning:

Zone Direct

Chief, Tidal Datums and Information Branch

NOAA FORM 76-155 (11-72)	NATIONAL C	CEANIC			ENT OF CO		SU	RVEY N	UMBER	
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FLORIDA (title)	/									1
GULF OF MEXICO (tit	1e) 🗸			<u> </u>	ļ				ļ	2
PENSACOLA BEACH			ļ	ļ	<u></u>	·				3
SANTA ROSA ISLAND	1		<u> </u>							4
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ATLANTIC MARINE CENTER EVALUATION REPORT

REGISTRY NO.: H-9943 FIELD NO.: HSB-20-2-81

Florida, Gulf of Mexico, Pensacola Beach

SURVEYED: June 2 through December 8, 1981

SCALE: 1:20,000 PROJECT NO.: OPR-J217-HSB-80

and OPR-J217-HSB-81

SOUNDINGS: Raytheon DE-723D CONTROL: Raydist (Range-Range)

Fathometer

1. INTRODUCTION

- a. No unusual problems were encountered during the verification of this survey.
- b. Necessary corrections and notes made by the evaluator to the Descriptive Report are denoted in red ink.

2. CONTROL AND SHORELINE

- a. The source of control is adequately discussed in section ${\tt F.}$ of the Descriptive Report.
- b. Shoreline originates with registered Coastal Zone Maps TP-00545 and TP-00547 of 1978-79 and unregistered Coastal Zone Map TP-00548 of 1978-79.

HYDROGRAPHY

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- a. Soundings at crossings are in excellent agreement considering the irregular nature of the bottom within the area.
- b. Depth curves were drawn at the standard intervals. A 90-foot brown curve, other brown curves and dashed curves were added to better portray the bottom topography.
- - 1) As noted in section 7.a. of this report. w^{yy}
- 2) The sounding lines along the northern part of the present survey were run parallel instead by perpendicular to the shoreline which detracts from alongshore feature development and portrayal.

4. CONDITION OF SURVEY

The smooth sheet and accompanying overlays, hydrographic records, and reports are adequate and conform to the requirements of the Hydrographic Manual with the following exceptions:

- a. Sounding line spacing frequently exceeded by 20 to 30 meters the 200 meter maximum allowance for sounding along an open coast. See section 4.3.4.2 of the Hydrographic Manual.
- b. The position fix interval frequently exceeded by 3 to 5mm the 5cm maximum allowance for surveys where a position is determined and recorded for each sounding. See section 1.4.5.1 of the Hydrographic Manual.
- c. Line spacing within the charted fairway anchorage area should have been reduced to 100 meters.
- d. Daily electronic calibration data was not included in the survey records for Year Days 153, 166, 167, 168, 169, 170, 177, 182, 189, 194, 195, 245, 279, 322, and 342.
- e. Control stations 102 and 104 are noted in some of the calibration data. These two stations may have been used, particularly for the days which have no calibration data in the survey records. Insufficient information exists to determine the identity of stations 102 and 104.
- f. No control stations were plotted on the final field sheets as required by section 4.2.1 of the Hydrographic Manual.
- g. The northwest corner of the survey is in an area of weak electronic control pattern intersections. The data may be displaced and not within the required standards of accuracy.
- h. Insufficient bar checks (18 bar checks for 31 days of hydrography) were taken during this survey (see section 1.5.2 of the Hydrographic Manual). Seven T.D.C. casts were used for velocity determinations but only two T.D.C. casts were within the survey area (see section 4.9.5 of the Hydrographic Manual).
- i. No Danger to Navigation Report nor a negative report was included in the Descriptive Report as required by section 6.12 of the 1981 Project Instructions. A Notice to Mariners was issued during processing and a copy of this Notice is included in the Descriptive Report.
- j. The landmarks located and listed in the Descriptive Report could not be verified as the survey records for these landmarks were not available and apparently were not submitted to N.G.S. for inclusion into the Geodetic network.
- k. The leadline least depth on two steel or concrete piles or beams, which extend $2-2\frac{1}{2}$ feet off the bottom (position 1686 Latitude

30°19'32", Longitude 87°09'20") was not addressed in the Descriptive Report and no charting recommendation was made. See section 7.a. of this report for the charting recommendation.

- 1. The pier located at position 1676 (Latitude 30°19'42", Longitude 87°08'28") was not addressed in the Descriptive Report and no charting recommendation was made. See section 7.a. of this report for the charting recommendation.
- m. The Abstract of Positions in the Descriptive Report is not complete. Some of the detached positions and shoalest soundings were not abstracted.
- n. The Volume Indexes are not complete. Some of the detached positions and shoalest soundings were not abstracted.
- o. The chart enlargement submitted with the survey field data did not have the chart number, edition data, or the grid labeled.
- p. The charts used for comparison with the present survey were not submitted with the survey field data.
- q. This survey's field office processing exceeded the six weeks required by the Project Instructions. This survey was completed by Launch 1257 in December 1981 and the records forwarded to the Processing Division in April 1982.
- r. The hydrographer in addressing Presurvey Review Items should include information on how the item is charted, the charted geographic position, and from what source.

5. JUNCTIONS

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H-9971 (1981) to the west H-9968 (1981) to the northwest H-9954 (1981) to the southwest H-9928 (1981) to the east H-9798 (1978) to the southeast

Adequate junctions were effected with surveys H-9971 (1981) and H-9928 (1981).

The smooth sheets for surveys H-9954 (1981) and H-9798 (1978) are archived at Headquarters and standard junctions were not made. Comparisons between stable base copies of surveys H-9954 (1981) and H-9798 (1978) and the present survey shows adequate agreement in the junctional areas and the junctional curves can be completed.

The junction with survey H-9968 (1981) was unusual in that a junctional holiday exists in the vicinity of Latitude 30°18'12", Longitude 87°15'12" which is approximately 130 meters wide by 740 meters in length. Additionally, a butt junction was accomplished in the alongshore area in the vicinity of Latitude 30°19', Longitude 87°14.5'

where depth differences of 3 to 4 feet were encountered in the junctional area along the 12 and 18-foot curves. The hydrography of survey H-9968 (1981) supersedes present survey hydrography in the butt junction area for the following reasons:

- a. Present survey electronic control in this area is weak with poor intersections whereas the Range-Azimuth control of the junctional survey is inherently more accurate.
- b. Present survey sounding lines were run parallel to the shoreline whereas the junctional survey used a system of perpendicular sounding lines.
- c. The junctional survey was conducted at the 1:10,000 scale and thus has the greater sample of data within the area.

In all other areas between the present survey and survey H-9968 (1981) an adequate junction was effected.

No contemporary junctional surveys exist to the north of the present survey.

COMPARISON WITH PRIOR SURVEYS

a. Hydrographic Surveys

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H-6636	(1940)	1:20,000
H-6635	(1940)	1:20,000
H-6633	(1940)	1:10,000
H-6555	(1940)	1:40,000
H-4139	(1919-1920)	1:80,000

Prior hydrographic surveys H-6636 (1940) and H-6635 (1940) are common to approximately one-sixth of the northern portion of the present survey. Comparison of present with prior hydrography reveals that depths and bottom structure remain quite similar with some minor shifting of bottom material. The bottom in this area is basically irregular with sand waves which are shifted, oriented, and structured by currents. Agreement between present and prior hydrography is good with most depths being within ±1 to 3 feet. A pier in approximately Latitude 30°19'45", Longitude 87°08'25" on prior survey H-6636 (1936) was not located or searched for on the present survey and was brought forward as submerged pier ruins on the present survey smooth sheet. - See affacked for revised charting recommends him.

Prior hydrographic survey H-6633 (1940) is common to a very small area at the northwestern edge of the present survey. Agreement within the common area is within ± 2 feet.

Prior hydrographic survey H-6555 (1940) is common to approximately the southern one-fifth of the present survey. Comparison of present with prior hydrography reveals that general depths and bottom structure remain quite similar. The bottom within the common area is irregular with substantial sand waves which shift with currents. The

basic pattern or orientation of the ridges and troughs is similar on the present and prior surveys.

Prior hydrographic survey H-4139 (1919-1920) is common to the present survey in its central and southern parts except a small area at the southeastern corner. The bottom within the common area is irregular with substantial sand waves which are shifted, structured, and oriented by currents. The basic pattern or orientation of ridges and troughs is similar on the present and prior surveys.

The present survey is considered adequate to supersede all prior hydrographic surveys within the common area.

b. Wire Drag Survey

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H-9466 WD (1974) 1:40,000

Survey H-9466 WD (1974) is common to the northwestern area of the present survey. With the exception of two soundings (in Latitude 30°13'40", Longitude 87°12'11" and Latitude 30°13'29", Longitude 87°11'52") there are no conflicts between present hydrography and the effective wire-drag depths. These two soundings are in conflict with the effective wire-drag depths by one foot. The conflict is not considered significant since the bottom is irregular with large sand waves which are subject to shifting by currents. Six hangs on the prior survey were brought forward to the present survey smooth sheet. Charting recommendations for the six hangs are contained in the tabulation in section 5.a. of the Evaluation Addendum to the Descriptive Report of H-9466 WD (1974). These hangs are:

- A Anchor extends 4 feet off bottom estimated hang depth of 41 feet not cleared in Latitude 30°17'46", Longitude 87°13'00".
- B Three barges estimated hang depth of 23 feet in Latitude 30°17'25", Longitude 87°13'17".
- C Metal obstruction extends 1-foot off bottom estimated hang depth of 65 feet cleared by 63 feet in Latitude 30°14'36", Longitude 87°14'20".
- D Blocks of concrete with protruding metal pipes estimated hang depth of 70 feet in Latitude 30°13'52", Longitude 87°12'20".
- E Uninvestigated hang estimated hang depth of 74 feet in Latitude 30°13'48", Longitude 87°12'05".
- F Old Wreck hung at 57 feet in Latitude 30°11'20", Longitude 87°13'05".

7. COMPARISON WITH CHARTS

11382 (26th Edition, November 15, 1980)

11383 (38th Edition, April 25, 1981)

11384 (24th Edition, February 28, 1981)

a. Hydrography

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The charted hydrography originates with the previously discussed prior surveys and soundings from sources not readily ascertainable. The previously discussed prior surveys require no further consideration. In comparison of charted hydrography from unascertained sources with present survey soundings an irregular bottom with substantial sand waves which are shifted, structured, and oriented by currents is evident.

Charting recommendations based on the results of this survey are:

1) The obstruction (two concrete or steel piles or beams - extends $2-2\frac{1}{2}$ feet off bottom) with a least depth of 9 feet on the smooth sheet in Latitude 30°19'32", Longitude 87°09'20" is not charted. It is recommended that this obstruction be charted as a <u>Dangerous Submerged</u> Obstruction with a least depth of 9 feet.



- 2) The charted Obstruction Fish Haven in approximately Latitude 30°19', Longitude 87°13' was not adequately developed and no indications of obstructions were evident. The hydrographer ran lines at 50-meters spacing parallel to the axis of the charted feature. A second pattern of closely spaced sounding lines running perpendicular to the axis of the charted feature would have been preferred as noted in section 1.4.3. of the Hydrographic Manual. It is recommended that the Obstruction Fish Haven be retained as charted.
- 3) The charted Obstruction Fish Haven in approximately Latitude 30°18'45", Longitude 87°07'00"- 08'00" was not adequately developed and no indications of obstructions were evident. The hydrographer ran only one line in search of this charted feature. A pattern of closely spaced sounding lines running both perpendicular and parallel to the axis of the charted feature would have been preferred as noted in section 1.4.3. of the Hydrographic Manual. It is recommended that the Obstruction Fish Haven be retained as charted.
- 4) The charted Obstruction Fish Haven (authorized minimum depth 57 ft) in approximately Latitude 30°17'13", Longitude 87°07'39" was not developed and no indications of obstructions were evident. A pattern of closely spaced sounding lines running both parallel and perpendicular to the axis of the charted feature would have been preferred as noted in section 1.4.3. of the Hydrographic Manual. It is recommended that the Obstruction Fish Haven be retained as charted.

- 5) The charted Obstruction Fish Haven (authorized minimum depth 67 ft)in approximately Latitude 30°16'18", Longitude 87°09'41" was not evident on the fathogram at the charted location. An indication of an obstruction was evident on the fathogram (a 69-foot sounding on the smooth sheet) in Latitude 30°16'22", Longitude 87°09'33". It is recommended that the charted Obstruction - Fish Haven be moved and charted at the position determined by this survey.
- 6) Two uncharted Obstructions, a 57-foot sounding on the smooth sheet in Latitude 30°14'15", Longitude 87°12'04" and a 67-foot sounding on the smooth sheet in Latitude 30°14'20", Longitude 87°12'00" were evident in the fathograms. These obstructions are in the Safety Fairway. Additional sounding lines such as noted in section 1.4.3. of the Hydrographic Manual may have yielded additional obstructions in the area or provided shoaler depths. It is recommended that these obstructions be charted as Dangerous Submerged Obstructions.
- 7) The pier charted in Latitude 30°19'45", Longitude 87°08'28" was located approximately 20 meters west of its charted location and extends approximately 40 meters further seaward. The survey position is in agreement with TP-00548. It is recommended that the pier be charted in accordance with Coastal Zone Map TP-00548. The pier on prior survey H-6636 (1940) noted in section 6.a. of this report is recommended to be charted as submerged pier ruins unless subsequent information indicates otherwise. - See attached letter for revised charting recommendation
- 8) Additional charting recommendations are made in section 6.b. of this report.
- 9) The hydrographer makes additional charting recommendations in section L. of the Descriptive Report.

The present survey is adequate to supersede the charted hydrography except as noted in this report.

b. Aids to Navigation

There are no aids to navigation common to the surveyed area.

COMPLIANCE WITH INSTRUCTIONS

This survey adequately complies with the Project Instructions except as noted in this report.

9. ADDITIONAL FIELD WORK

This is an adequate basic survey. Additional field work would be desirable to gain additional information on size, orientation, and least depths on the obstructions, wrecks and fish havens within the area.

J. Scott Bradford
Cartographic Technician
Verification of Field Data

Maurice B. Hickson, III Cartographer

Evaluation and Analysis

Leroy G. Cram

Supervisory Cartographic Technician Verification Check

Inspection Report H-9943

The completed survey has been inspected with regard to survey coverage, delineation of depth curves, development of critical depths, cartographic symbolization, and verification or disproval of charted data. The digital data have been completed and all revisions and additions made to the smooth sheet during survey processing have been entered in the magnetic tape record for this survey. Final control, position, and sounding printouts of the survey have been made. The survey complies with National Ocean Service requirements except as noted in the Evaluation Report. The survey records comply with NOS requirements except where noted in the Evaluation Report.

Inspected

Charles D. greader

Charles D. Meador

Chief, Evaluation and Analysis

Group

Hydrographic Surveys Branch

David B. MacFarland, Jr., LCDR, NOAA Chief, Hydrographic Surveys Branch

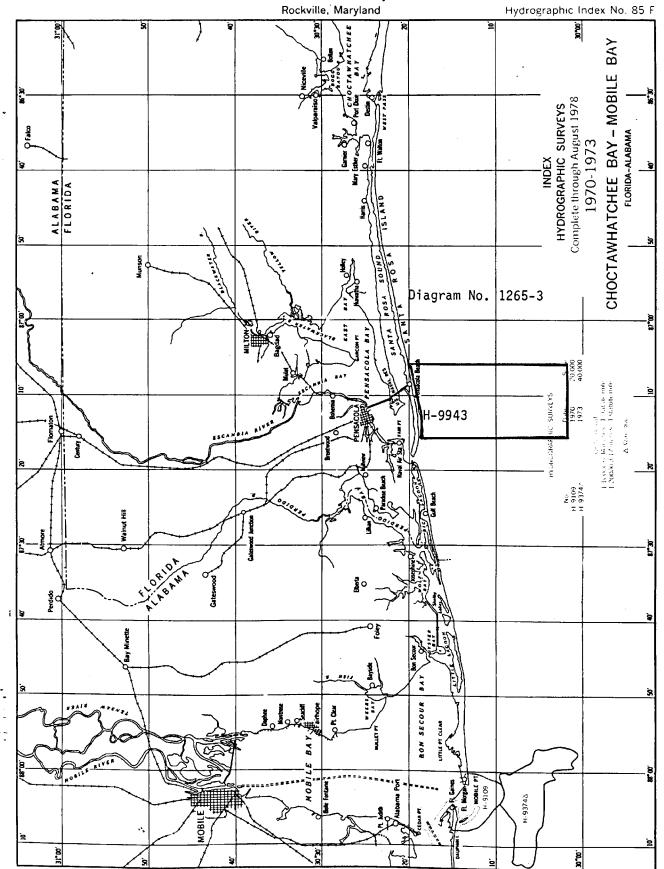
Approved June 29, 1984

Wesley V. Hull, RADM, NOAA

Director, Atlantic Marine Center

DEPARTMENT OF COMMERCE National Oceanic and Atmospheric Administration

National Ocean Survey





UNITED STATES DEPARTMENT OF COMMERCE National Oceanic and Atmospheric Administration

NATIONAL OCEAN SERVICE

REC'D APR 4 1985
OPERATIONS SECTION
HYDROGRAPHIC SURVEYS BRANCH

1 April 1985

Andrew H. Armstrong, LCDR Chief, Operations

Dear Sir:

After our telephone conversation, I contacted John G. Cowley of 2600 Whaley Ave, Pensacola, Florida, who was the manager of the Santa Rosa Island Authority at its inception in 1950. He informed me that submerged pier ruins from a 1930's concession existed off Pensacola beach less than 100 meters east of the current pier until the late 1950's when he contracted out for their removal. A demolition team dynamited the piles and removed all debris including the footings. This area has since been a swimming area and there have been no reports of submerged objects.

Based on this conversation and my own aerial reconnaisance, it is recommended that all charted features in this area be removed.

Sincerely,

Frank E. Ohlinger, LTJG

Frank E. Ohlis

OIC, HFP-4



FORM	C&	GS-	83	52
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NAUTICAL CHART DIVISION

RECORD OF APPLICATION TO CHARTS

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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.

			recommendations made under "Comparison with Charts" in the Review.
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