9861

Diag.Cht.No.1268

NOAA FORM 76-35A

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

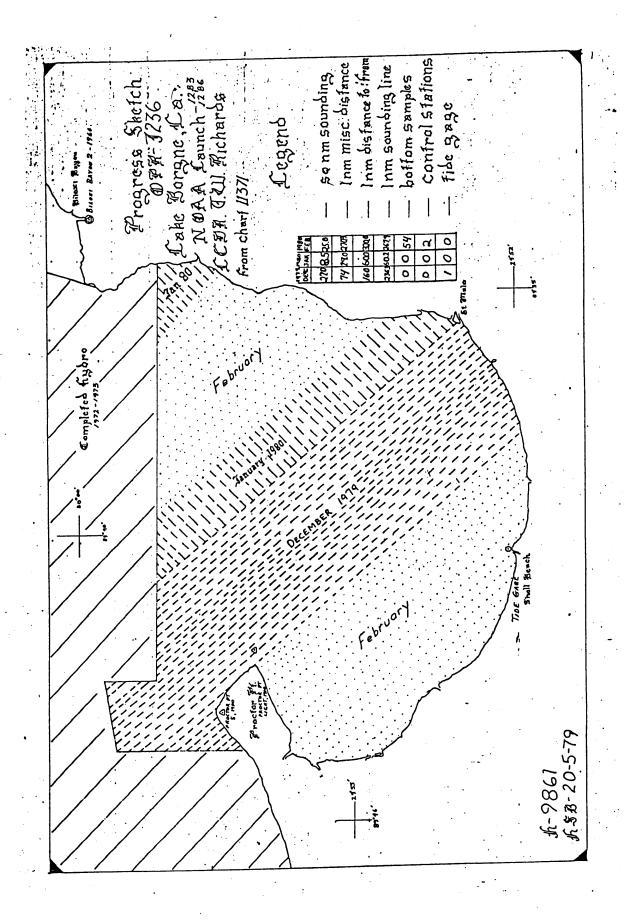
DESCRIPTIVE REPORT

Type of Survey Hydrographic Field No. HSB-20-5-79 Office No. H-9861
LOCALITY
State Louisiana
General Locality Lake Borgne
Locality Proctor Pt, to Pointe aux Marchettes.
10.70.00
19 79 - 80
CHIEF OF PARTY
T.W. Richards
LIBRARY & ARCHIVES
DATE March 5,1981

☆U.S. GOV. PRINTING OFFICE: 1980-668-537

AREA H CHTS: 11371 11364 11340NC 1-358 (82)

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NOAA FORM 77-28 (11-72)	- U.S. DEPARTMENT OF COINATIONAL OCEANIC AND ATMOSPHERIC ADMINIST		RIEGISTER NO.
	HYDROGRAPHIC TITLE SHEET	. • • •	н-9861
			FIELD NO.
	he Hydrographic Sheet should be accompanied by this ely as possible, when the sheet is forwarded to the Of		HSB-20-5-79
StateLou	uisiana ``		
General locality_	Lake Borgne		•
LocalityPr	coctor Pt., to Pointe aux Marc	hett	es, to Shell Peach
Scale1:20,	000 Date	of sur	vey 12/3/79 = 02/26/80
Instructions date	d	ect No.	OPR-J236-HSB-79
Vessel NOAA	Launch 1283		<u> </u>
Chief of party	LCDR Thomas W. Richards		
Surveyed by	LCDR A.Y. Bryson		
Soundings taken	by echo sounder, hand lead, pole Raytheo	n 71	9-B
	aled by R.S., D.E., J.O., M.M.,		
	ecked by R.S., D.E., J.O., M.M.,		., A.B.
	N/A		Field Sheet PDP8/e
	AMC-Verification Branch		Xynetics 1201
	MaXiMoXiiX feet at XIXX XXXXXXXX GCL	ωW	
REMARKS:	Change #1 - Sep. 27. 1979		
Robert	Snow, Dave Elliott, John Oswa	ld,	Mark McMann,
Carl Bu	ish, A.Y. Bryson		
	Time meridian: GMT		
·	"Misc data Tited with Fr	eld r	records"
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	A		
· · · ·	appl = Stds 4-20-82	750	•



DESCRIPTIVE REPORT TO ACCOMPANY HYDROGRAPHIC SURVEY H-9861 HSB-20-5-79

Scale: 1:20,000

Chief of Party: Lt. Cdr. T. W. Richards Officer-in-Charge: Lt. Cdr. A. Y. Bryson

Hydrographic Surveys Branch, Hydrographic Field Party #3

Launch 1283

A. PROJECT

This survey was accomplished under Project Instructions OPR-J236-HSB-79, dated July 2, 1979, and amended by Change No. 1, dated September 27, 1979.

B. AREA SURVEYED

The area surveyed was the south, southeast section of Lake Borgne, LA and is bounded by the following points:

south of

59.7' Lat. 29⁰59'N, Long. 89⁰45'W Lat. 29⁰59'N, Long. 89⁰35'W -Lat. 29⁰52'N, Long. 89⁰40'W

This survey was conducted from December 3, 1979 to February 26, 1980 (J.D. 337 to 57) inclusive.

C. SOUNDING VESSEL

All soundings obtained on this survey were obtained from NOAA Launch 1283 (EDP # 1283). All survey records are annotated with the vessel number 1283.

D. SOUNDING EQUIPMENT AND CORRECTIONS TO ECHO SOUNDINGS

The following Raytheon fathometer equipment was used during the survey:

JD 337 - 344:

Recorder Model #719-B

Serial #5881

JD 354 - 361:

Recorder Model #719-B

Serial #6211

JD 22 - 57:

Recorder Model #719-B Serial #5881

The fathometer was monitored continuously while sounding and was under constant adjustment to insure that no initial corrections were necessary. The paper take-up motor was intermittently slipping on JD 354-361.

Settlement and squat tests on Launch 1283 were run on November 9, 1979 at Chef Menteur Pass, LA. The results of these tests 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 Atlantic Marine Center and were not applied to the field sheets.

Velocity and instrument corrections were determined by bar check. The lengths of the line on the bar were checked on December 6, 1979 and March 10, 1980. The results of this inspection showed that no correction was necessary.

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. Main scheme hydrography is plotted on the smooth field sheets while developments, splits, bottom samples, crosslines, prior survey soundings, junctions soundings, charted soundings, presurvey review items, and aids to navigation are shown on various 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 geodetic control stations published by NGS or were established by HFP-3 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. Stations established by HFP-3 have been submitted via HSB's data terminal for inclusion in the NGS data base. See Q.C. Report

G. HYDROGRAPHIC POSITION CONTROL See Verifier's Report

The method used to control this survey was Range-Range. The equipment used to control this survey was Del-Norte Master Unit #78-278 used JD 337 to 344, JD 38 to 57; Master #78-273A was used on JD 354 to JD 37; Remote #76-251 was used on JD 337 to JD 57; Remote #74-247 was used on JD 337 to JD 361; Remote #78-220 was used on JD 22 to JD 57; DMU #123 was used on JD 337 to JD 344; and DMU #517 was used on JD 354 to JD 57.

Problems encountered with the use of this equipment were on JD 354; DMU #123 failed, readout hanging up. Del-Norte Remote #74-247 failed on JD 20. On JD 354 Del-Norte Master #78-278 failed; on JD 38 Master #78-273-A failed.

The control equipment was calibrated by party personnel twice daily between control stations using distances computed with Program RK407. Del-Norte corrections were applied by corrector tapes to field sheet and will be applied during smooth plotting at AMC.

H. SHORELINE

Shoreline detail for this survey was obtained from Class I Photo Manuscripts TP-00048 and TP-00049 dated November 1969, Chart #11371 blown up to the scale of the survey 21st edition dated April 7, 1979. and Oct 1971

Shoreline corrections were necessary at the southeast and south side of the lake due to shoreline erosion. The south shore of Proctor Point has built southward.

Photogrammetric locations of salient features from the manuscripts were checked by hydrographic Range-Range means with the following results and recommendations:

- In the piling at lat. 29°55.9', long. 89°44.5' was visually searched for but not found. Recommend this piling be charted as submerged. (TP-00048)
- NC 2. Old Fort Beauregard at lat. $29^{\circ}52.0^{\circ}$, long. $89^{\circ}40.7^{\circ}$ was located with three D.P.'s. All had a 20 meter shift away from station Alligator 2. Suspect these D.P.'s may have been affected by reflections from the massive $60 \times 60 \times 60$ meter brick fort. Recommend this feature be charted from TP-00048. Concar Topo position shown on smooth sheet
- 3. 27' The line of submerged pilings from Old Fort Beauregard north to lat. 29°52.3', long. 89°40.7' was searched for with fathometer and sounding pole but was not found. Recommend this feature be charted from TP-00048. Com cur See Q.C. Report, p. 7.
- NC 4. The area of submerged obstructions at lat. 29°52.1', long. 89°40.6' was searched for with fathometer and sounding pole. No significant obstructions were located, but since many pilings and ruins exist nearby, recommend this feature be charted as shown on TP-00048. See para L, PSR Hem 55.
- N° 5. The submerged cables at lat. 29°51.9', long. 89°40.55 and lat. 29°51.4', long. 89°40.7' were searched for but no indications were found. This area has been cut off from development and habitation since the construction of the Mississippi River Gulf Outlet. Hurricanes and man have returned the area to nature. Mr. Benny Bell of the Engineering Department of Louisiana Power and Light Company in Gretna, Louisiana reported that these cables were proposed and permits applied for but were cancelled prior to any construction due to the construction of the MRGO. Recommend these cables be deleted.
- NC6. The spoil area and canal at lat. 29°52.4′, long. 89°36.5′ were searched for but not found. This area has had extensive erosion and appears as a shallow bay now. Recommend deleting this feature and charting the shoreline as shown on the field sheet.

 **Shoreline receded approx 70 meters

 Concar

 Concar
- The sand spit at lat. 29°52.8', long. 89°35.9' was searched for on JD 44. A shell jetty which has suffered considerable erosion was located. Apparently a bed of small clam shells had been dredged from an area west of Bayou St. Malo Light #1 and used to build a jetty to protect a channel into the bayou along which are several trapper and fishermen cabins. Recommend charting this feature as shown on the field sheet. Shell jetty (2) Concur See Ver. Rep. pag. 2.C.2.

I. CROSSLINES

Crosslines constitute 10% of the main scheme hydrography. Ninety-five percent of the crossings agree within one foot. No sounding are in disagreement at crossing by more than two feet. The reasons for the disagreement of sounding at crossline is due to wind generated tides differing from predicted tides.

J. JUNCTIONS See Verifier's Report See Q.C. Report, para 4

This survey junctions with the following surveys:

- I. H-9347 to the north;
- 2. H-9354 to the west.

Ninety-five percent of these junction soundings agree within one foot when compared with the current survey and none of the junction soundings are in disagreement by more than two feet. The reason for this disagreement is believed to be wind generated tides differing from predicted tides. No synificant differences were noted in the junctional area.

The hydrographer recommends that in the junction areas, the soundings from the present survey be charted.

K. COMPARISON WITH PRIOR SURVEYS See Verifier's Report

This survey was previously covered by Survey H-1055A (1870), 1:40,000 scale.

Because of the age of this survey, the comparison was of little value other than historical interest. Concar

Where discrepancies exist It is recommended that the soundings from the present survey supersede the prior surveys' soundings.

L. COMPARISON WITH THE CHART

Contact was established with local U.S. Coast Guard, Corps of Engineers, Coast Guard Auxiliary, fishermen and marina operators for any additional information on the following presurvey review items which were investigated during this survey:

PSR Item #51 was searched for on JD 57 for one hour. The wreck was reported in 1961 to be a <u>dangerous sunken wreck</u>, ED. The F/V Good Brothers sunk about 700 yards 190° from Bayou Biloxi Lt. #1. No local knowledge was available. Not within limits of sheet Origin NM 48/61 and H-9261(71); lat 30°00'06" long. 89°33'39.5" No action necessary; not transferred.

Water clarity at the time of the investigation was 1 to 2 feet. A chain sweep with 75 feet of chain and 40 feet of towline was conducted with no indications of wreckage.

The hydrographer recommends that the sunken wreck, ED, remain charted at this location because a rigorous chain sweep in two directions with total coverage was not conducted.

LWM 63/72 - refers only to obstructure green down that your II

LNM 63/72.

PSR Item #55 was searched for on JD 52 for one-half hour. The wreck was reported in 1967 and 1972 to be a 36-foot cabin cruiser, QUEEN MARY II reported half submerged and resting on piles at lat. 29°52'06", long. 89°40'30" in 1967. Then in 1972 wreek was reported not visible but two feet over an obstruction was reported at same location. A local marina owner reported that during the past 20 years, several vessels had been sunk in this area but all had been removed. There were no other reports of wrecks remaining in this area. Origin NM 17/67;

Water clarity at the time of the investigation was I to 2 feet. A chain sweep with 75 feet of chain and a 40-foot towline was conducted. Because this area is foul with ruins, a rigorous search could not be made. No indications of wreckage was located, but a large sunken clump of concrete, dangerous to surface navigation, was located at lat. 29°52'03.03"N, long. 89°40'29.87"W (Pos. #2228) with a least depth of one foot.

The hydrographer recommends that the wreck PA (2 ft. REP) be deleted and a submerged obstruction with a least depth of one foot) dangerous to surface navigation be charted at pos. #2228. Con car A submerged obstruction delineation from the topographic manuscript has been revised on the smooth sheet to include the additional obstruction.

PSR Item #56 was searched for on JD 46. The <u>platform</u> was reported in 1979 to be a gas pipeline installation 40, x 40, foot structure 20 feet high on pilings. (See photo) off sheet Origin CL 987/79

Pertinent information transferred to H-9354(73)

Dares 33 feet at HW

The platform was located at lat. 30°00'41.96", long. 89°43'03.16"W (Pos. #2091) by Range/Range hydrographic means. 46' x 46' horizontally and 34' vertically See Q.C. Rep. para 4.

The hydrographer recommends that this item be charted as a named (New Orleans Public Service Co.) lighted (2 fixed red lights) platform at Pos. #2091. Concur

PSR Item #57 was searched for on JD 51 for one hour. The obstruction was reported in 1977 to be a <u>submerged obstruction</u>, PA marked with plastic jugs. No positive local information was available on this item. A marina owner reported that during 1977, a large partially submerged tree trunk marked with plastic jugs was drifting in the general area of this item. Requiring identification of reported items prior to charting would aid field investigations. Off sheet Pertnert information transferred to H-9347(73); Origin LNM 28/77 See Q.C. Rep. para 4

Water clarity at the time of the investigation was one to two feet. A chain sweep with 75 feet of chain and a 40-foot towline was conducted with no indications of an obstruction. $430^{\circ}00'00''$ λ 89°39'00"

The hydrographer recommends that the submerged obstruction, PA, remain-charted because a rigorous chain sweep in two directions with total coverage was not conducted.

NC PSR Item #58 was searched for on JD 57 for one hour. The <u>sunken wreck, dangerous</u> PA, was reported in 1977 to be a 20-foot pleasure craft sunk in nine feet of water, marked with a 5-gallon can and a green float cushion. No local knowledge was available. Off sheet Pertinent information transferred to H-9347(73)

Origin NM31/77 \$30°03'00" \lambda 89°36'00"

See QC Rep. para 4

Water clarity at the time of the investigation was one to two feet. A chain sweep with 75 feet of chain and 40-foot towline was conducted with no indications of wreckage.

The hydrographer recommends that the dangerous sunken wreck, PA, remain charted because a rigorous chain sweep in two directions with total coverage was not conducted. Contest

PSR Item #59 was searched for on JD 51 for 1½ hour. The sunken wreck, PA, was reported in 1977 to be a 24-foot pleasure craft sunk at entrance to Chef Menteur Pass in 30 feet of water. No local knowledge was available. Off sheet Pertinent information transferred to H-9354(73) Origin LNM 31/77

Water clarity at the time of the investigation was one to two feet. A chain sweep with 75 feet of chain and 80-foot towline was conducted with no indications of wreckage.

The hydrographer recommends that the dangerous sunken wreck, PA, remain charted because a rigorous chain sweep in two directions with total coverage was not conducted. 2012 \$30.02.30" \lambda 89.46.00" See Q.C. Rep. para 4

PSR Item #60 was searched for on JD 51 for one-half hour. The dangerous submerged obstruction, PA was reported in 1979 to be one to two feet below the surface at the intersection of Chef Menteur Pass and Lake Borgne. No local knowledge was available. Offsheet Retinent information transferred to H-9354 (73) Origin LNM 13/79 \$30.02.42" \(\lambda 89.46.00" \) (30-02.36; 89-46-12) See QC Rep. para 4

Water clarity at the time of the investigation was one to two feet. A chain sweep with 75 feet of chain and 80-foot towline was conducted.

A one foot diameter concrete piling in 11 feet of water with a least depth of one foot was located at lat. 30°02'44.3"N, long. 89°46'12.3"W (Pos. #2197). The position was determined by a range from Alligator 2 and distances measured from identifiable points on shoreline. This obstruction is at the edge of a steep channel where depths rise from 47 feet to 4 feet in a distance of ten feet.

The hydrographer recommends that the dangerous submerged obstruction, PA, be deleted and a dangerous submerged obstruction with a least depth of one foot be charted at Pos. #2197.

This survey was compared as the survey progressed with Chart 11371, 21st Edition and with Chart 11371, 21st Edition, blown up to the scale of the survey. The following changes in the chart were detected:

- 1. Depths from the chart were 1 to 5 feet shoaler than surveyed depths.

 See also the Veritier? Report
- App'd 2. The row of five pilings and the single pile at the entrance to Bayou Yscloskey at lat. 29°52.24, long. 89°40.21 were searched for visually but were not found. Recommend these pilings be charted as submerged, see Veri fier's Report, para 7a. 2and 3 except for single pile (7).
- 3. The three overhead cables, clearance 30 feet, in Bayou Yscloskey were searched for but not found. Mr. Benny Bell of the Engineering Department of Louisiana Power and Light Co. in Gretna, Louisiana reported that all power cables and poles were removed from the Old Shell Beach area when the Mississippi River Gulf Outlet was constructed. Recommend deleting these cables from the chart. Origin T-9665 (52-57).
- 10ng. 89°40.2' and lat. 29°52.0', long. 89°39.0' were searched for visually but were not found. Recommend these markers be charted as submerged pilings.

Consecur

The four foot Sept 1978 reported as controlling depth for the entrance channel to Bayou Yscloskey was investigated by running a single sounding line from Bayou Yscloskey Light #2 to the MRGO on JD 52. Based on predicted tides, the controlling depths were found to be six feet to the bayou entrance and seven feet in the bayou to the MRGO. Recommend revising these controlling depths based on smooth tides. 5.ft found at Daybe acond "5" (Not plotted)
The showlest depth found by a line of soundings ap the channel centerline was a feet based

The 2-foot Aug 1978 reported as the controlling depth for the 6. The 2-foot Aug 19/8 reported as the controlling depth for the entrance channel to Bayou St. Malo was investigated by running a single sounding line from inside Bayou St. Malo to Bayou St. Malo Light #1 on JD 56. Based on predicted tides the controlling depth was found to be $oldsymbol{ ilde{tou}}$ r fee $oldsymbol{ ilde{t}}$ if you enter to the south of the light as the green daymark indicates. Recommend revising this controlling depth based on smooth tides. 44+, based whom smooth sheet

An area approximately 100 x 300m of peaks and deeps just west of Bayou St. Malo Light #1 was developed on JD 56. This area was apparently dredged for shells to construct the shell jetty discussed in Section H #7. Bottom samples taken in the deeps contained mud with no shells while those outside the disturbed area contained large amounts of the same type of shells found on the Also, the peaks do not rise above the general bottom depths. Recommend charting this area with soundings from this survey.

A group of six oil and gas platforms at lat. 30°03.5', long. 89°39.2' ppay pi+fm April 8. were located on JD 56. Two are charted as dolphins. Recommend deleting the because of two dolphins and charting six platforms (lighted) in this area. (See photos) concur

See Q.C. Rep. para 4 Pertinent information transferred to H-9347(73) No reports were made to the U.S. Coast Guard on any recommended changes to the chart.

M. ADEQUACY OF SURVEY

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

See Verifier's Report, and Q.C. Report, para 3 N. AIDS TO NAVIGATION

All floating and fixed aids to navigation in the survey area were located and comparisons between their charted, Light List (Vol. 11, 1980), and surveyed positions and descriptions were made. All aids were found to adequately serve the apparent purpose for which they were established.

O. STATISTICS

Number of Positions	2379
Nautical Miles of Sounding Line	509.2
Nautical Miles of Crossline	50.5
Nautical Miles of Development	4.7
Total Miles of Hydrography	564.4
Nautical Miles of Chain Sweep	11.8
Number of Bottom Samples	54
Number of Barchecks	36

P. MISCELLANEOUS

The latitude for PSR 60 given in the project instruction was 30" south of the source material (LNM 13/79).

Q. RECOMMENDATIONS

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

R. AUTOMATED DATA PROCESSING

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

RK201 Grid, Signal, and Lattice Plot 4/18/75 RK211 Range/Range Non-real Time Plot 1/15/76 RK300 Utility Computations 2/05/76 RK330 Reformat and Data Check 5/04/76 RK407 Geodetic Inverse/Direct Computation 9/25/78 AM500 Predicted Tide Generator 11/10/72	PROGRAM	DESCRIPTION	VERSION DATE
AM602 Elinore-line Oriented Editor 5/20/75	RK211 RK300 RK330 RK407	Range/Range Non-real Time Plot Utility Computations Reformat and Data Check Geodetic Inverse/Direct Computation	1/15/76 2/05/76 5/04/76 9/25/78

S. REFERENCE TO REPORTS

None.

Respectfully submitted,

Lt. Cdr. A.Y. Bryson, NOAA

OIC, HFP-3

FIELD TIDE NOTE H-9861 (HSB-20-5-79)

Field tide reduction of soundings was based on predicted tides from Pensacola, Florida corrected to Lake Borgne with correctors specified by the project instructions. All times of both predicted and recorded tides from the HFP-3 gage are GMT.

A standard Fischer/Porter ADR tide gage was installed near Shell Beach, Louisiana.

SITE	LOCATION	PERIOD
Shell Beach, LA	29 ⁰ 52 . 0'	Installed - 11/7/79
876-1305	89 ⁰ 40 . 5'	Removed - 2/29/80

SIGNAL LISTING

LAKE BORGNE, LA.

OPR J-236

HSB-20-5-79

H-9861

101 1 30 01 58853 089 43 19265 250 0029 0000000 ALLIGATOR 2 1966 102 4 29 59 46668 089 33 27160 250 0029 000000 BILOXI BAYOU 2 1966 103 1 29 56 47240 089 42 27999 250 0000 000000 PROCTOR POINT LT. 1980

NOAA FORM 76-40	-40					Š	S. DEPARTA	ENT OF COMMERCE	ORIGINATING ACTIVITY	CTIVITY	
(8-74) Replaces C&GS Form 567	Form 567.	NONFLOATING AIDS OR LANDMARKS FOR CHARTS	OS OR LAND	MARKS	FOR CHA	RTS	A CONTRA	C ADMINIST RATION	X HYDROGRAPHIC PARTY GEODETIC PARTY DHOTO FIELD PARTY	1RTY TY	
XTO BE CHARTED TO BE REVISED		REPORTING UNIT (field Party, Ship or Office)	STATE		LOCALITY			DATE	COMPILATION ACTIVITY	V T Y	
TO BE DELETED		HSB-HFP#3	Louisiana	na	Lake	Borgne		3/27/80		. & REVIEW GRP. NCH	_
The following objects	ects HAVE	VE NOT	been inspected from seaward to	ward to de	determine their value as landmarks.	ir value as	landmarks.		(See reverse for responsible personnel)	ible personnel)	-
OPR PROJECT NO	NO. JOB NUMBER		UMBER			•					
J236	HSB-	HSB-20-5-79 H-9861	191	1927	North Ame	American	F	METHOD AND DATE OF LOCATION (See instructions on reverse side)	E OF LOCATION on reverse side)	CHARTS	
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CHARTING	Becord reason for	DESCRIPTION (Record season for defettor of lendmark or aid to navidation.)	aviantion.		"			DEFIGE OFFICE	FIELD		
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)				30 00	25.30		36.87	on H-9261 (11)	2/26/80 Pos 2379	•	-
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	RESPONSIBLE	RESPONSIBLE PERSONNEL	
TYPE OF ACTION	NAME	ME	ORIGINATOR
OBJECTS INSPECTED FROM SEAWARD	•		☐ PHOTO FIELD PARTY ☒ HYDROGRAPHIC PARTY ☐ GEODETIC PARTY
	H. Y. 15 ryson, ~	£00%, 1907.7	OTHER (Specify)
F-0511 10NS DETERMINED AND/OR VERIFIED			FIELD ACTIVITY REPRESENTATIVE
			OFFICE ACTIVITY REPRESENTATIVE
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES			REVIEWER QUALITY CONTROL AND REYIEW GROUP REPRESENTATIVE
	INSTRUCTIONS FOR ENTRIES UNDER (Consult Photogramme	FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION' (Consult Photogrammetric Instructions No. 64,	
OFFICE IDENTIFIED AND LOCATED OBJECTS	CATED OBJECTS	FIELD (Cont'd) B. Photogrammetric fie	ld positions** require
Enter the number and date (including mon	e (including month,	entry of method of	entry of method of location or verification,
day, and year, of the photograp identify and locate the object.	otograph used to bject.	graph used to locat	and number of the photo- e or identify the object.
EXAMPLE: 75E(C)6042 8-12-75		EXAMPLE: P-8-V 8-12-75 74L(C)2982	7
FIELD			
on Delekmi applicable	S	When a landmark or aid which is	IKIANGULATION STATION KECOVEKED When a landmark or aid which is also a tri-
F - Field P - F	P - Photogrammetric Vis - Visually	angulation station is recover Rec.' with date of recovery.	angulation station is recovered, enter 'Triang. Rec.' with date of recovery.
ס		EXAMPLE: Triang. Rec.	
- Triangulation 5 -	Field identified	8-12-75	
- Intersection 7 -	Planetable	III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH	UALLY ON PHOTOGRAPH
ι . ∞	Sextant	Enter 'V+Vis.' and date.	te.
	ire entry of method of	EXAMPLE: V-Vis. 8-12-75	
	of fleid work.	**PHOTOGRAMMETRIC FIFID POSITIONS are dependent	SITIONS are dependent
8-12-75		entirely, or in part, upon control established	on control established
*FIELD POSITIONS are determined by field obser- vations based entirely upon ground survey methods.	ned by field obser- ground survey methods.	by photogrammetric methods.	·ds•

APPROVAL SHEET SURVEY H-9861 (HSB-20-5-79)

The hydrographic records transmitted with this survey are complete and adequate to supersede prior surveys for charting except as noted by the hydrographer with no additional field work recommended.

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

Approved and forwarded,

Thomas W. Richards Lt. Cdr., NOAA

Chief, Hydrographic Surveys Branch

8/8/80

OU.S. DEPARIMENT 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): 876-1305 Shell Beach, Lake Borgne, LA

Period: December 3, 1979 - February 26, 1980

HYDROGRAPHIC SHEET: H-9861

OPR: J236

Locality: Lake Borgne, Louisiana

Plane (Gulf Coast Low Water Datum): 2.28 ft.

Height of Mean High Water above Plane of Reference is 1.5 ft.

REMARKS: Zone direct.

Chief, Datums and Information Branch

NOAA FORM 76-155 (11-72) NA	TIONAL	OCEANIC			ENT OF C			RVEY NU	JMBER	
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Bayou St. Malo	Х									1
Bayou Yscloskey	X									2
Lake Borgne	. X									3
Pointe aux Marchette	s X									4
Proctor Point	Х									5
Shell Beach	-*									6
BAYOU GRANDE					<u> </u>					7
BAYOU LOUIS										8
CAMP BAYOU		į.								9
DOULLUTS CANAL					ļ					10
FLAGPOLE BAYOU										11
FLAT BAYOU										12
FORT BAYOU										13
JAHNCKES DITCH MISSISSIPPI RIVER-		ļ								14
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APPROVAL SHEET FOR SURVEY H- 9861

- A. All revisions and additions made on the smooth sheet during verification have been entered in the magnetic tape records for this survey. A new final position printout has/has not been made. A new final sounding printout has/has not been made.
- B. The verified smooth sheet has been inspected, is complete, and meets the requirements of the Hydrographic
 Manual. Exceptions are listed in the Verifier's Report.

Date: February 18,1981

Signed:

Title: Chief, Verification Branch

St. Myers 15 his. 8/15/81

REGISTRY NO. <u>9861</u>

The Computer and Excess Sounding Cards for this survey have not been corrected to reflect the changes made to the Computer Card and Excess Card Printouts at this time of the review.

When the cards have been updated to reflect the final results of the survey, the following shall be completed:

CARDS CORRECTED

	,	
DATE	TIME REQUIRED	INITIALS
REMARKS:		
•		•
	:	
	REGISTRY NO.	
The magnetic tape been corrected to and review.	containing the data reflect the changes	for this survey has not made during evaluation
When the magnetic results of the su	tape has been updatervey, the following	ed to reflect the final shall be completed:
•	MAGNETIC TAPE CORRE	CTFD
•	PAGNETIC TALE CORE	<u> </u>
DATE	TIME REQUIRED	INITIALS
REMARKS:	•	

ATLANTIC MARINE CENTER VERIFICATION REPORT

Registry No: H-9861 Field No.: HSB 20-5-79

Louisiana, Lake Borgne, Proctor Point to Pointe Aux Marchettes

Surveyed: December 3, 1979 through February 26, 1980

Scale: 1:20,000

Project No: OPR-J236

Echo sounder
Soundings: Raytheon 719-B Fathometer and

Sounding Pole

Control: Del Norte

(Range-Range)

Chief of Party T.W. Richards

Surveyed by A. Y. Bryson

C. Bush

M. McMann

J. Oswald

D. Elliott

R. Snow

Verified and Inked by R. R. Hill

December, 1980

1. Introduction

a. During verification of this survey a one-foot depth difference was noted by the verifier in a few areas between adjacent sounding lines and crosslines. These differences in actuality range from 0.2 to 0.8 feet when the reduced depths were compared. A further review of all hydrographic data revealed inconsistencies in the distance the surveying vessel actually traveled between fixes which could effect an accurate application of settlement and squat correctors for this survey. This problem is discussed further in this report under Condition of Survey.

b. Six Presurvey Reviewed Items which lie outside the project area were investigated by the hydrographer as prescribed by the Project Instructions. Also, the results of these investigations were plotted and inserted into the Descriptive Report of this survey.

See Q.C. Report, para 4.

red-orange

c. All red notes in the Descriptive Report were made by the verifier,

dark red by quality evaluator.

2. Control and Shoreline

- a. The source of control is adequately described under Sections F and G of the Descriptive Report.
- b. Shoreline was transferred from Class I, Reviewed photogrammetric manuscripts TP-00048 and TP-00049 of 1969; however, almost half of the shoreline shown on this smooth sheet was determined from survey data. The dashed red shoreline delineation was transferred from the hydrographer's boatsheet, and the dashed black delineation was delineated by the verifier as an approximation of the HWL where the hydrography is in conflict with the shoreline manuscript. This delineation is justified based upon the non-contemporary nature of the shoreline maps and the hydrography.

 See Q.C. Report, para. 1.
- c. The following features shown on the photogrammetric manuscripts were noted by the verifier as being in conflict with hydrographic data:

Shoreline Manuscript TP-00049

1) The <u>high water line</u> along the eastern shore of this survey shows considerable change. Erosion inland varying from 20 to 100 meters is apparent from latitude 29°58'37" southward to Bayou St. Malo.

100 meters at this position (possible formation of new creek).

This area was revised by the hydrographer. Dashed red lines were used to show its present location on the smooth sheet.

- 2) A jetty located on the west side of the entrance to Jahnckes Ditch in latitude 29°52'49", longitude 89°35'52", was found by the hydrographer as now being awash at GCLW. The manuscript shows this as being above high water. The awash condition is shown on the smooth sheet. See Des. Rep. para. H.7.
- 3) The <u>high water line</u> along a portion of the southeastern shore from Bayou St. Malo to longitude 89°38'03" appears to have been eroded inland from 10 to 90 meters. This area has been revised by the hydrographer. Dashed red lines on the smooth sheet show its present location.
- 4) The present disposition of two bulkheads, located at the entrance to Doulluts Canal at latitude 29°51'42", longitude 89°39'06", was described by the hydrographer as now being bulkhead ruins. Also field notes suggest that the high water line behind the bulkheads has been eroded inland to some degree. The field information was insufficient to position or approximate the present HWL in this area.

Shoreline Manuscript TP-00048

1) The high water limits on both sides of the entrance to Bayou Yscloskey at latitude 29°52'00", longitude 89°39'30", appear to have undergone some degree of erosion. Differences between the hydrography and T-sheet range from 0 to 60 meters, with the hydrographer's work indicating inland recession of the shoreline.

The disposition of this area as shown by the field's boatsheet was transferred in dashed red to the smooth sheet.

- 2) The high water limits examined by the hydrographer from longitude 89°41'12" northwesterly to Grand Bayou indicate shoreline erosion in some areas. Differences encountered between the shoreline map and hydrography vary from 10 to 25 meters and are being shown on the smooth sheet with dashed red lines.

 black See Q.C. Rep. para 1
- 3) The delineation of the high water limits of Proctor Point's southern shore by the hydrographer shows a seaward build up of the shoreline. The present disposition of this area was transferred from the field's boatsheet in dashed red to the smooth sheet.

3. Hydrography

- a. Depths of crossings are in good agreement, with the exceptions noted under Section I and 4 of this report.
- b. The standard depth contours were adequately delineated, along with a supplemental 3-foot curve. Also, brown curves were added in the vicinity of latitude 29°53'15", longitude 89°36'10", to show the irregular nature of the bottom in this area.
- c. The development of the bottom configuration and investigation of least depths are considered adequate. See Q.C. Rep. para 10

4. Condition of Survey

The smooth sheet and accompanying overlays, hydrographic records, and reports are adequate and conform to the requirments of the <u>Hydrographic Manual</u> with the following exceptions:

l) In reference to the depth differences discussed earlier in this report, settlement and squat correctors appear to have been inaccurately applied. The application of these correctors was based on the rpm of the surveying vessel while running, however, the actual speed of this vessel was noted by the verifier in some instances to vary with the same rpm reading. Also, between 3000 and 4000 rpm running speeds there is a rapid change in the settlement and squat characteristics of the sounding vessel. Over a very flat bottom profile, in depths of 5 to 10 feet slight variations in the operating speeds of the vessel in this rpm range cause pronounced depth differences between adjacent sounding lines and crosslines. Within this rpm range the settlement and squat correction changes from -0.1 to -0.7 feet.

2) The range/range position by Del Norte of Bayou St. Malo Light I, which was previously located by third-order geodetic methods, differs by approximately 10 25 feet from the geodetic location. The form 76-40 provided in the Descriptive Report indicates a range/range method of positioning was used for all the aids listed.

This data should not be considered adequate for charting because the hydrographer failed to locate non-floating aids to navigation by ground survey methods meeting the requirements of third-order, Class I or better accuracy.

3) In the vicinity of latitude 29°52'00, longitude 89°40'30" discrepencies were found in the Del Norte positioning of some shoreline feature by the hydrographer. The shoreline manuscript's delineation of this area is being used. Also, in this area the Del Norte location of an obstruction (Presurvey Review Item #55) is being adjusted based on field notes to correspond to the photogrammetric delineation of referenced features in the area. See Section H (page 7) of the Descriptive Report for additional information.

5. Junctions

An adequate junction was effected with the following:

See Q.C. Report, para. 4.

H-9347 (1972-73)

northeast northwest

H-9354 (1973)

6. Comparison With Prior Surveys

H-1055a (1870)

1:40,000

The above prior survey provides the most recent complete coverage of the area common to the present survey. A comparison between the prior survey and the present survey reveals the present survey's depths to be generally 1 to 6 feet deeper. The greater depth differences occur within 3 kilometers from shore, where considerable change in the bottom is apparent due to erosion and probably subsidence in the area. Also, considerable change in shoreline due to erosion was noted and varied from 90 to 350 meters. Considering the age, smaller scale, and sparse development of the above prior survey, we concur that this survey is of little value other than historical interest. See QCRepart, para 7.

The present survey is adequate to supersede the prior survey within the common area.

7. Comparison With Chart #11371 (21st Edition, April 7, 1979)

a. Hydrography

The charted hydrography originates with the previously discussed prior survey, with the *exception of three 7-foot depths in the vicinity of latitude 29°56'00", longitude 89°44'30", and one 5-foot depth at latitude 29°53'30", longitude 89°35'40". The source for these charted depths was not ascertained at this time; however, the present survey is considered adequate to supersede these charted depths within the common area.

7 foot depths from C/L 78B/62 5 foot depth from C/L 794/56; reference Bp 54296 and NM 45/56 The disposition of Presurvey Review Items and charted features located within the limits of this survey were adequately discussed under Sections H and L of the Descriptive Report, with the following exceptions:

89°44.5' originates with an unknown source. The hydrographer conducted a visual search for the pile; however, nothing was found. It is recommended that this pile be revised to a submerged pile for charting. Origin CL-788(1962), delete charted three piles and chart piles as shown on present survey.

The row of five piles charted with their seaward terminous at latitude 29°52.34', longitude 89°40.53', originates with an unascertainable chart source. The hydrographer did not find these piles by a visual search. TP-00048 shows a row of submerged piles approximately 100 meters west extending from Old Fort Beauregard. It is recommended the chart compiler evaluate their charting source against current survey data regarding whether they should be charted as submerged.

3) The single pile, charted at latitude 29°52.27', longitude 89°40.4%, searched for by the hydrographer as stated in Section 1 of his chart comparison is apparently one of the private markers landward of Bayou Yscloskey Light 2 and should be so charted. Located by present survey at \$27°52.29' \lambda 89°40.44' (pos. 2037), bares Theet at MHW

The present survey is considered adequate to supersede the charted information within the common area, with exceptions noted.

b. Controlling Depths

There are no conflicts with the charted controlling depths of channels in the survey area. Also see Section L (page 9) of the Descriptive Report for additional information.

c. Aids to Navigation

The aids to navigation located on the present survey are in substantial agreement with their charted positions and adequately serve the purposes intended.

For additional information, see Condition of Survey, and Q.C. Report, para 3

8. Compliance With Instructions

This survey adequately complies with the Project Instructions.

9. Additional Field Work

This survey should be considered a good basic survey; however, due to the large amount of shoreline changes, it would be desirable for the shoreline mapping in this area be updated. See Q.C. Report, para 10.

INSPECTION REPORT H - 9861

The completed survey has been inspected by the Hydrographic Inspection Team with regard to survey coverage, delineation of depth contours, development of critical depths, cartographic symbolization, and verification or disproval of charted data. The Verification Report has presented the facts accurately and properly, the procedures used were appropriate, and the recommendations are logical and justifiable. The survey complies with National Ocean Survey requirements as noted in the Verification Report. The survey records comply with NOS requirements except where noted in the Verification Report. The Hydrographic Inspection Team concurs with the verifier's findings, actions, and recommendations.

> Examined and Approved Hydrographic Inspection Team Date: December 12, 1981

Karl Wm. Kieninger, CDR, NOAA Chief, Processing Division

David W. Yeager, Lt.Cdr., NOAA Field Procedures Officer

R. D. Chief, Verification Branch

Processing Division

Maureen R. Kenny, LT, MOAA Chief, EDP Branch

Processing Division

Prepared/Forwarded

Marrieen

Richard H. Houlder, RADM, NOAA Director, Atlantic Marine Center

UNITED STATES DEPARTMENT OF COMMERCE National Oceanic and Atmospheric Administration NATIONAL OCEAN SURVEY Rockville, Md. 20852

OA/C352:RWD

April 30, 1981

T0:

Glen R. Schaefer Gris

Chief, Hydrographic Surveys Division

THRU:

Chief, Quality Control Branch graw

FROM:

R. W. DerKazarian Robert W Derkazanan

Quality Evaluator

SUBJECT:

Quality Control Report for H-9861 (1979-80), Louisiana, Lake Borgne,

Proctor Point to Pointe aux Marchettes

A quality control inspection of H-9861 was accomplished to monitor the survey for adequacy with respect to data acquisition, delineation of the bottom, determination of least depths, navigational hazards, junctions, sounding line crossings, smooth plotting, shoreline transfer, decisions and actions taken by the verifier, and the cartographic presentation of data.

The status of a control station (triangulation station) could not be substantiated by the National Geodetic Survey (NGS). It is assumed, however, that the necessary records and computations will eventually be submitted to the NGS. Ultimately, therefore, it is expected that the triangulation status of the control station will be validated. Accordingly, the control station is symbolized as a triangulation station pending formal processing and acceptance as such by the NGS, and described as "(Field position)", on the smooth sheet.

In general, the survey was found to conform to the National Ocean Survey's standards and requirements except as stated in the Verifier's Report and as follows:

1. The black dashed shoreline shown on the smooth sheet is contrary to standard office practice which is to show hydrographically determined shoreline in red. The shoreline manuscripts' high water line is in conflict with the sounding data and, in some instances, was not totally positioned in the field. However, portions of the shoreline were delineated as approximate from hydrographic data during processing, but shown in black. This correction has not been made on the smooth sheet. See Hydrographic Manual table B-5; carto code 189 and footnote.

Paragraph 2.c. Shoreline Manuscript TP-00048 (part 2) of the Verifier's Report indicates that the dashed shoreline was shown in red on the smooth sheet; instead, it was shown in black.

2. NOAA Form 76-40 "Nonfloating Aids or Landmarks for Charts" was not updated during verification. The items located were determined by electronic control

(range-range) and had not been adjusted when originally shown on form 76-40. These values have been revised during quality evaluation to agree with the final position listing. This deficiency also applies to several geographic positions in the Descriptive Report.

3. Reference paragraph 4(2) of the Verifier's Report:

Fixes for these nonfloating aids do not meet specific standards as outlined in Chapter 1 "Specifications and General Requirements" of the Hydrographic Manual except for Proctor Point Light which had data of third-order accuracy submitted to NGS; however, they do substantiate the charted positions. Refer to form 76-40 appended to the Descriptive Report.

Proctor Point Light (see above) and Alligator Point Light which fall in the area of survey H-9354 (1973) are charted from Local Notice to Mariners 52/1977. These lights are approximately 3 seconds in longitude and 4 seconds in latitude in conflict, respectively, with the positions obtained by the present survey. The present survey data are considered more reliable. The remaining aids charted from Chart Letter 252/1974 (form 76-40) and located by the present survey are in very good agreement.

- 4. Adequate junctions with H-9347 (1972-73) on the northeast and H-9354 (1973) on the northwest have been completed during quality evaluation. Results of investigations during the present survey for Presurvey Review and other items that fall within the limits of these junctional surveys have been transferred to those sheets and noteworthy information is furnished in their respective Descriptive Reports; such as, charting recommendations, photographs, overlays, and form 76-40.
- 5. The tide station symbol has been deleted from the smooth sheet; it obliterated more important data. The location of this station is at Shell Beach in latitude 29°52.0'N, longitude 89°40.5'W (approximate) as noted on the smooth sheet.
- 6. Cartographic code 499, shoal (area), was entered in the sounding listing, when code 249, platform (lighted), or code 889, obstr-oil well (for wellhead) should have been shown.
- 7. Reference paragraphs H.3 and L.2 of the Descriptive Report and 7.a.2 of the Verifier's Report:

A row of five piles charted in latitude 29°52.35'N, longitude 89°40.53'W originates with H-1055a (1870) as a pier. The projection on this prior survey was adjusted in 1914 to the North American Datum; the North American Datum of 1927 does not appear on this survey which possibly contributes to the apparent displacement of the charted remains (piles). It is recommended that the charted piles be deleted and submerged piles be charted at latitude 29°52.27'N, longitude 89°40.67'W as shown on the present survey.

8. The charted "NOTE C, CAUTION, Numerous oil well structures are located within the limits of this chart," could be misconstrued; it should be revised to read "NOTE C, CAUTION, Numerous oil well structures are located within the area covered by this chart."

- 9. The photographs (provided by the field) of the wellheads and platforms proved to be invaluable; this practice should be continued.
- 10. At an opportune time, Bayou Yscloskey and its approach channel should be surveyed at a larger scale so as to properly portray the bottom configuration and to determine controlling depths within these areas.

cc: 0A/C351



UNITED STATES DEPARTMENT OF COMMERCE National Oceanic and Atmospheric Administration NATIONAL OCEAN SURVEY Rockville, Md. 20852

APR 2 1982 OA/C351:SJV

T0:

OA/CAM - Richard H. Houlder

FROM:

SUBJECT: H-9861 (1979-80), Louisiana, Lake Borgne, Proctor Point to Ponte aux

Marchettes, Report of Compliance with Project Instructions

The smooth sheet and Descriptive Report for the subject survey have been examined. This survey, except as noted in the Quality Control Report, dated April 30, 1981 (copy attached), and the Hydrographic Survey Inspection Team Report, dated December 12, 1981, is complete and adequate for the purposes intended and is in compliance with Project Instructions OPR-J236-HSB-79, dated July 2, 1979.

Attachment

cc:

OA/C352 w/o att.



DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration National Ocean Survey Rockville, Maryland Hydrographic Index No. 87 G Cht, 1268 SOUND BRETON Scale 20.000 HYDROGRAPHIC SURVEYS Date 1973 PEARL RIVER - ATCHAFALAYA BAY SIPPI . HYDROGRAPHIC SURVEYS Complete through August 1978 LOUISIANA 1973

NAUTICAL CHART DIVISION

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-9861

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
1371	1/11/83	WILLS	Full Pare Before After Verification Review Inspection Signed Via
	·		Drawing No. 45
No.	ļ		
11364	1/11/83	WILLS	Full Part Before After Verification Review Inspection Signed Via
··			Drawing No. 45
1367A	. , ,		
1/367H	1/11/63	WILLS	Full Part Before After Verification Review Inspection Signed Via
			Drawing No. 17 AppliED PSR HEN # 60 ONLY (SEE P.
1364	12/7/52	J.m Hawks	Full Part Before After Verification Review Inspection Signed Via
			Drawing No. 4364-51 Matric revision
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	 		Full Part Before After Verification Review Inspection Signed Via
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