

9156

Diag. Cht. No. 1268.

NOAA FORM 76-35A

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

DESCRIPTIVE REPORT  
(HYDROGRAPHIC)

Type of Survey ..... Hydrographic  
Field No. .... 742-10-1-70  
Office No. .... H-9156

LOCALITY

State ..... Mississippi  
General Locality .. Mississippi Sound  
Locality ..... St. Louis Bay

19 70-71

CHIEF OF PARTY  
George C. Chappell

LIBRARY & ARCHIVES

DATE ..... May 23, 1977

★ U.S. GOV. PRINTING OFFICE: 1976-868-441

9156

ARE 4  
- 11371  
- 11372-8

HYDROGRAPHIC TITLE SHEET

H-9156

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-742-10-1-70

State Mississippi

General locality Mississippi Sound

Locality St. Louis Bay

Scale 1:10,000 Date of survey <sup>256</sup> Sept 13, 1970 <sup>111</sup> June 10

Instructions dated 25 October 1968 Project No. OPR-468

Vessel HFP-542 <sup>Launch 1259 and</sup>

Chief of party Lt. George C. Chappell

Surveyed by Ltjg. John P. Campton

Soundings taken by echo sounder, hand lead, pole ALL

Graphic record scaled by Party personnel

Graphic record checked by Party personnel

Protracted by by AMC Automated plot by AMC CALCOMP 618

Soundings penciled by AMC

Soundings in ~~fathoms~~ feet at MLW ~~MLW~~ feet MLW

REMARKS: Ver. fixed by HRS mith

Applied to stds 4/24/80  
[Signature]

DESCRIPTIVE REPORT  
TO ACCOMPANY  
Hydrographic Survey H-9156  
Project OPR-468

SCALE: 1:10,000 Hydrographic Field Party 742  
CHIEF OF PARTY: LT George C. Chappell  
SURVEYED BY: Ltjg John P. Campton

\* \* \* \* \*

A. Project

Work on project OPR-468 was done in accordance with instructions dated 25 October 1968.

B. Area Surveyed

This survey covers ~~Bay~~ St. Louis <sup>Bay,</sup> Mississippi and associated rivers and bayous. Latitude  $30^{\circ}18'30''$  to  $30^{\circ}23'00''$ ; Longitude  $89^{\circ}15'00''$  to  $89^{\circ}24'30''$ .

Field work on this sheet commenced 13 September 1970 and ended on 10 June 1971.

No junctions with contemporary or prior surveys were made.

C. Sounding Vessels

Soundings were obtained primarily with launch 1259. Soundings associated with position numbers 4530 through 4545 (337 day) were obtained with skiff 570, but since all these soundings were taken with a sounding pole, no separation of data was necessary and all position numbers are shown in blue on the boatsheet.

D. Sounding equipment

Raytheon fathometer, type DE-723, serial number 1888, was used for all echo soundings. A sounding pole was used in water too shallow for accurate fathometer operation.

Corrections applied to echo soundings were determined by averaging daily bar checks. An abstract of these corrections is tabulated in Appendix "B" of this report.

No unusual problems were encountered with the sounding equipment, and no significant difference was indicated between bar checks taken in salt water and those taken in brackish water upriver.

#### E. Smooth Sheet

The smooth sheet will be plotted by Atlantic Marine Center using punched paper tapes made by party personnel. All tapes were made in accordance with the automated hydrographic manual of October, 1968, with the exception of the tide tapes, which were done in accordance with CFN's memo dated 12 March 1971.

#### F. Control

Horizontal control was obtained by the standard three-point sextant fix method. Appendix "A" contains a complete list of control used and its source. In the numerous narrow, twisting bayous where sextant fix control was impossible, fixes were scaled from the boatsheet on a "see boatsheet" basis.

#### G. Shoreline

Shoreline detail was taken from manuscripts TP 00036, TP00037, TP00038 and TP00039. Man made changes are noted on the boatsheet and the manuscripts.

Minor discrepancies between photogrammetric and hydrographic locations of piers and pilings may exist, primarily on both shores of the Bay's mouth. These piers, pier ruins, and piles are still in the process of being removed, rebuilt, and replaced by property owners. The area was devastated by Hurricane Camille in 1969. Locations and descriptions given in the sounding volumes and on the boatsheet were accurate as of the date of the survey, but more changes will no doubt occur rapidly along these shores.

*See Quality Control Report*

#### H. Crosslines

Crosslines were run spaced at approximately ten times the regular spacing and were in good agreement. Instances of apparent disagreement are circled and explained in notes on the boatsheet. The majority of these apparent disagreements were where fathometer soundings intersected sounding pole soundings. These soundings agree if velocity corrections are applied to the echo sounding, but this was not done on the boatsheet.

#### I. Junctions

No junctions with contemporary surveys were made.

J. Comparison with Prior Surveys

There are four numbered Pre-survey Review items within the limits of this survey. They are listed and discussed in Section K, "Comparison with Chart".

A comparison of this survey with ~~beatsheet~~ #3960, a 1:40,000 ~~beatsheet~~ dated 1918, reveals depths in general agreement in the southern part of the bay, but present depths are one to two feet shallower in the upper reaches of the bay.

A comparison with channel cross-sections provided by the U.S. Army Corps of Engineers' Mobile, Alabama office, dated 20 July 1970, revealed some disagreement. Channel depths into Bayou Portage were found to be presently one to two feet shallower than indicated on that survey. Some filling of this channel may have occurred after the Army's survey. A copy of their survey is forwarded with the records.

K. Comparison with Chart

A comparison between this survey and chart 876-SC, scale 1:40,000, 2nd addition, dated 5 November 1966 was made. Depths are in fairly good agreement, this survey showing slightly shallower depths in the upper (Northern) parts of the bay and slightly deeper depths in the southern (mouth) portion.

Features to be Charted

<u>Feature</u>	<u>Location</u>	<u>Remarks</u>
Wreck	30 20.27' ✓ 89 22.36' ✓	Bares <sup>4.0' at MHW</sup> <del>2.0' at MLW</del>
Wreck	30 19.85' ✓ 89 23.55' ✓	<sup>WRECK OF</sup> Sunken Barge blocking canal ✓ Bares 3.0' at MLW
Wreckage	30 20.83' ✓ 89 21.40' ✓	Bares 1.1' at MLW ✓
Wreckage	30 22.16' ✓ 89 18.50' ✓	Wrecked light structure of value as landmark Signal N <sup>o</sup> 16 ✓ No form 567 included (NOA# 76-40)
Pile	30 21.74' ✓ 89 18.44' ✓	<sup>bqres 9 ft. MHW</sup> Pile is Sig. 15, No elev. given
2 Piles	30 19.52' ✓ 89 19.22' ✓	Presently charted as ruins No piles at this location JPS

Several Subm Piles, vicinity of	30 18.76' ✓	Subm 1.8' <sup>to 5'</sup> at MLW ✓
	89 18.04' ✓	PSI Item No. 31 ✓
	30 18.74'	Subm 4.8' at MLW
	89 18.02'	
	30 18.75'	Subm 3.5' at MLW
89 17.92'		
Subm Pile	30 18.75'	Subm 4.0' at MLW
	89 17.90'	
Subm Pile	30 18.75'	Subm 3.8' at MLW
	89 17.87'	
Foul area of conc. piles & steel pipes & ruins	30 22.8' <sup>46</sup> vicinity ✓	Conc. posts and steel ✓
	89 19.23' ✓	pipes, pier ruins located with D.P.S.
Uncharted Spoil area, north of dredged channel	30 21.0'	Least depth is <sup>2'</sup> 4.6' at MLW ✓
	89 19.7'	
	to	
	30 20.1'	
	89 18.3'	
Spoil area	30 20.3' ✓	This spoil area is considerably
	89 17.7' ✓	larger than charted ✓

Features to be Deleted from Chart

Bottom Char. ✓	30 21.3'	Bottom charted as "hrd" ✓
	89 21.5'	soft mud was observed
Bottom Char. ✓	30 19.5'	"oys" PSI Item No. 32 <sup>concur 7/5</sup>
	89 17.9'	A search was made of the area, <sup>12/14/77</sup> but no shells were found
Stump ✓	30 21.61' <sup>36.4"</sup>	No evidence observed <sup>no evidence</sup>
	89 18.53'	<sup>in survey records of any search for</sup> stumps. Existence considered doubtful
Sunken tree ✓	30 21.42'	PSI Item No. 33 <sup>concur 12/14/77 7/5</sup>
<del>( )</del>	89 18.13'	A search was made for this using a modified wire drag on the bot- tom. No stump was found
Pile	30 20.80'	PSI Item No. 34
	89 18.61'	A similar search was made for this pile - <sup>concur 12/14/77 7/5</sup>

Charted Subm Files as they appear on present survey 12/19/77 ZPS	Vicinity of, 30 18.795' 89 18.1800'	PSI Item No. 31 ✓ An extensive wire drag search was made for this pile. See section "0" for a discussion of methods used
✓ Stake, PA	30 21.1' ✓ 89 17.91' ✓	Not observed, <i>discredited by present survey</i>
✓ Stake, PA	30 21.05' ✓ 89 17.80' ✓ <i>vic. of 79</i>	Not observed, <i>discredited by present survey</i>
✓ 3 Stakes, PA	30 20.1' ✓ 89 17.9' ✓	Not observed,
✓ 3 rock symbols <i>Rocks were charted from T-9379N/2 (1950-56) and symbolize rpa-rap. ZPS.</i>	<i>vicinity of</i> 30 19.5' ✓ 89 19.6' ✓ 5	No rocks were observed and two Bay Waveland Yacht Club officials denied any knowledge of them. The rocks are shown at the en- trance to the Bay Waveland Yacht Club harbor.

L. L. Adequacy of Survey

This survey is considered to be fully adequate for charting purposes.

M. Aids to Navigation

Within the limits of this survey there are ten fixed and four floating aids to navigation maintained by the United States Coast Guard and five aids maintained by Bay Waveland Yacht Club. These aids adequately serve the purpose intended.

A new fixed interstate highway bridge, previously uncharted, crosses the Jordan River at Latitude 30°21.8', Longitude 89°24.1'. Clearances were measured to be 35.4' vertically (at MLW) and 100' horizontally. A power line crosses just south of the bridge. Vertical clearance is estimated to be in excess of 50 feet. *33.6 at MHW*

N. Statistics

This survey totals 4613 positions, 375.4 nautical miles of sounding line, and approximately 13 square nautical miles of area. Seventy four bottom samples were also obtained.

O. Miscellaneous

The search for PSI Item No. 31, subm. piles, proved to be a special problem. Such seaches have customarily been made by this survey party by dragging a chain on the bottom, stretched between trawl boards. But the bottom in the area

of PSI Item No. 31 is "infested" with small clumps of oysters and debris, all of which are too small and unimportant to locate individually, but large enough to continually snag the chain dragging on the bottom.

A miniature wire drag was constructed and employed successfully to find several submerged pilings in this problem area. It consists of 200 feet of 3/16" stainless cable, in fifty foot lengths, supported along its length by two quart "clorox" bottles at 16 foot intervals. A 45 lb. weight at each end of the ground wire resists the lift of the 50 foot tow lines. These weights were supported by larger floats. With uprights set at eight feet, a maximum of one foot lift was observed while underway.

Two men in each of the tow launches and another two men in the "tender" skiff had no trouble conducting the drag operation. Marker buoys were used to mark the location of each end of the wire at the start and end of each sweep. This insured adequate coverage (with overlaps between sweeps) and simplified possible horizontal control problems, since sextant fixes could than be taken at each marker bouy.

*Chart the piles as shown on the present survey*  
*JPS*

Respectfully Submitted,

*John P. Campton*  
John P. Campton  
LTJG NOAA



APPENDIX "A"

List of Signals

Signal Number	Origin	Signal Number	Origin
003✓	TPO0039	043✓	TPO0039
004✓	39	044✓	39
005✓	39	045✓	39
006✓	39	046✓	39
007✓	39	047✓	39
008✓	39	048✓	39
009✓	TPO0037	049✓	TPO0037
010✓	37*	050✓	TPO0039
011✓	37	051✓	39
012✓	37*	053✓	39
013✓	37	054✓	39
014✓	37	055✓	39*
015✓	37*	056✓	39
016✓	37	057✓	39
017✓	37	058✓	39
018✓	37	059✓	TPO0037
019✓	37	060✓	37
020✓	TPO0036	061✓	37
021✓	36	062✓	37
022✓	36	063✓	37
023✓	36	064✓	TPO0036
024✓	36	065✓	36
025✓	36	066✓	36
026✓	36	067✓	36
027✓	36	068✓	36
028✓	36	069✓	36
029✓	36	070✓	36
030✓	36	071✓	36
031✓	36	072✓	36
032✓	36	073✓	36
033✓	36	074✓	36
034✓	36	075✓	36
035✓	36	076✓	36
036✓	36	077✓	36
037✓	TPO0039	078✓	36
038✓	39	079✓	36
039✓	39	080✓	36
040✓	39	081✓	36
041✓	39	082✓	36
042✓	39	083✓	36

\*These signals were located by ground control methods by Photo Party 61 and plotted on the manuscripts.

LIST OF SIGNALS  
(CONT'D)

Signal Number	Origin	Signal Number	Origin
084✓	TPO0036	093✓	TPO0037
085✓	36	094✓	37
086✓	36	095✓	37
087✓	36	096✓	37
088✓	TPO0039	097✓	37
089✓	TPO0037	098✓	37
090✓	37	099✓	37
091✓	37	301✓	TPO0037
092✓	37	302✓	TPO0039
101✓ <sup>A</sup>	Bay St. Louis Water Tank, destroyed, Oct. 1970 1931 (now removed)		
102✓ <sup>A</sup>	West, 1954		
105✓ <sup>A</sup>	BSL 22, USE, 1954		
110✓ <sup>A</sup>	Cape RM No. 2, 1958		
112✓ <sup>A</sup>	Pine Hills Oblate Fathers Seminary Cross Dome Seminary Landmark		
114✓ <sup>A</sup>	East, 1954		
115✓ <sup>A</sup>	Pass Christian Inn by the Sea Tank, 1931 Landmark		
117✓	Henderson 2, 1966		
118✓	Well Rm No. 2, 1954		
119✓ <sup>B</sup>	Milt, 1969		
201✓	TPO0039*	303✓	Hydro -
202✓	TPO0037*		Vol. 16,
203✓	37*		pg. 44
204✓	37*	305✓	TPO0039
205✓	37*	306✓	39
206✓	37*	307✓	39
207✓	37*	308✓	39
208✓	TPO0036*	309✓	39
209✓	36*	310✓	39
210✓	TPO0037*	401✓	Artificial signal

\*These lights were located by  
Photo Party 61 by ground control  
methods and plotted on the manuscripts.

APPENDIX "B"

Corrections to Echo Soundings

Launch 1259  
Fathometer DE-723, Ser. 1888

<u>Depth (ft)</u>	<u>Correction (ft)</u>
0.0 to 5.2	-0.4
5.2 to 11.2	-0.2
11.3 to 21.0	0.0
21.1 to 27.6	+0.2
27.7 to deeper	+0.4

APPENDIX "C"

Tidal Note

Gage location: Bay Waveland Yacht Club Harbor, Bay St.  
Louis, Mississippi.  
Lat.  $30^{\circ}19.48'N$ .  $19.53'N$   
Long.  $89^{\circ}19.60'W$ .  $19.52'W$

Gage Type: Portable, pressure bubbler gage

Staff: Plastic scale, MLW corresponds to 1.0 on  
the staff from the beginning of the survey  
until 19 March 1971. The staff was lowered  
on that date, making MLW correspond to 1.3.

Time Meridian: 90th

APPENDIX "D"


Approval Sheet to Accompany  
Hydrographic Survey H-9156

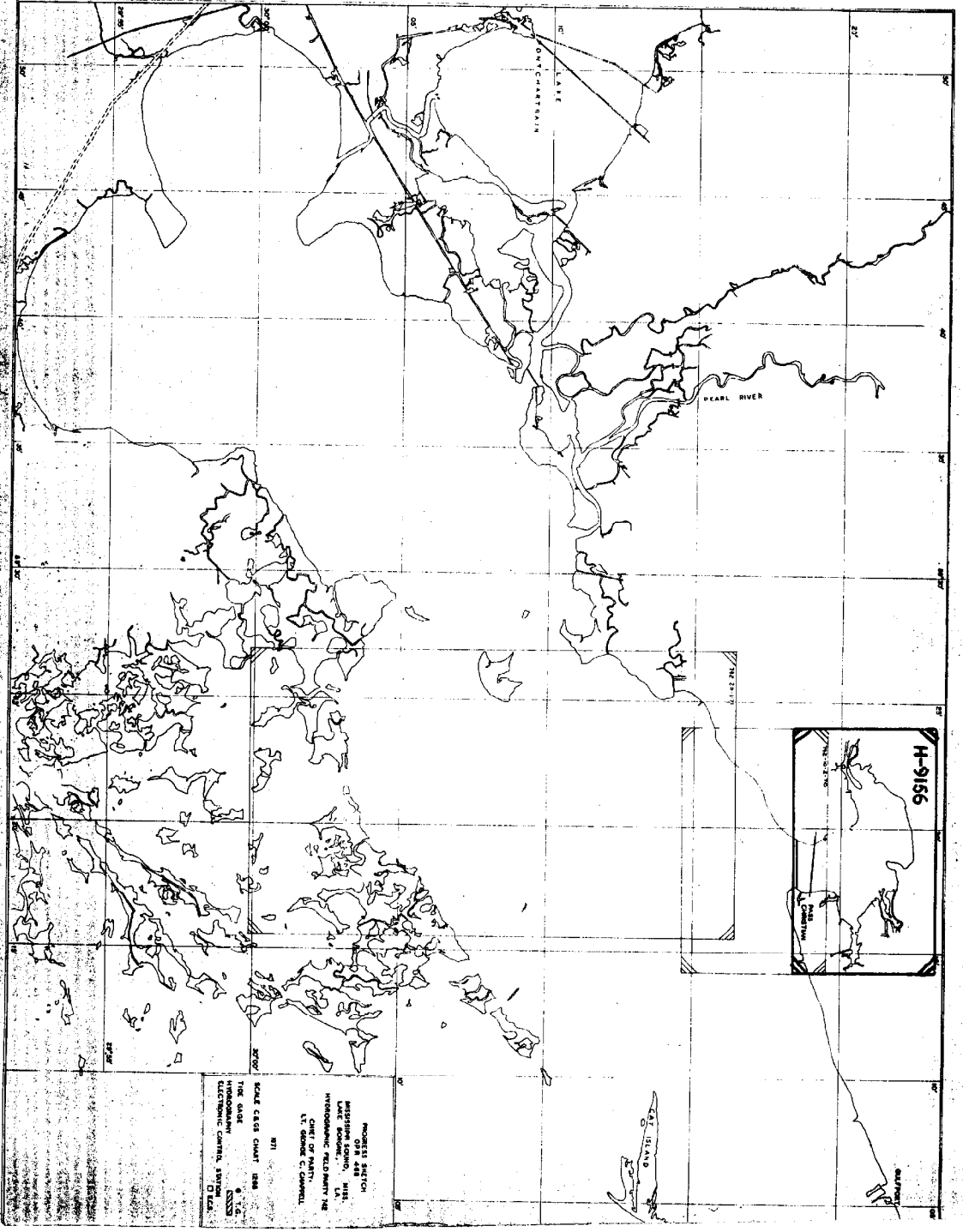
This field and office work was accomplished under my supervision.

The hydrography and descriptive report were done by LTJG John P. Campton.

The report and records for this survey are complete and adequate to the best of my knowledge.

Approved and forwarded,

  
LT George C. Chappell  
Chief of Party



**H-9156**

PEARL RIVER  
ONTONAGON LAKE

PROGRESS SKETCH  
 AUGUST 1948  
 LAKES AND RIVERS  
 LAKES AND RIVERS  
 HYDROGRAPHIC FIELD PARTY '48  
 CHIEF OF PARTY  
 LT. GEORGE C. CHANNELL

911

KOAL CLASS CHART 1948

THE GIDE  
 HYDROGRAPHIC  
 ELECTRONIC CONTROL SYSTEM

VELOCITY CORRECTIONS FOR SURVEY H 9156.

H-9156 10/24/74

TABLE NUMBER 1. UNIT IS FEET.

DEPTH	VELOCITY CORRECTION
5.3	-0.4 ✓
11.3	-0.2 ✓
21.1	0.0 ✓
27.7	0.2 ✓
100.0	0.4 ✓
99999.9	0.4 ✓

2  
3  
4  
5  
6  
7  
8  
9  
0

4/29/74

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 Form 362

Tide Station Used (NOAA Form 77-12): Bay St. Louis

Period: Aug. 17 - Dec. 3, 1970, April 1 - May 24, 1971

HYDROGRAPHIC SHEET: H9156

OPR: 468

Locality: Mississippi Sound

Plane of reference (mean ~~lower~~ low water): 1.3 ft.

Height of Mean High Water above Plane of Reference is 1.8 ft.

Remarks: Zone direct.

*C. J. Anclon*

Chief, Tides Branch



CAM3-1  
1/31/74

ATLANTIC MARINE CENTER

PROJECTION PARAMETERS

POLYCONIC OR MODIFIED TRANSVERSE MERCATOR

1. Project No. OPR-468                      4. Requested By H.R. Smith  
2. Reg. No. H-9156                            5. Ship or Office Verification  
3. Field No. 742-10-1-70                    6. Date Required A.S.A.P.

7. Polyconic                       Modified Transverse Mercator

8. Central Meridian of Projection 89 ° 19 ' 20 "

9. Survey Scale: 1: 10,000

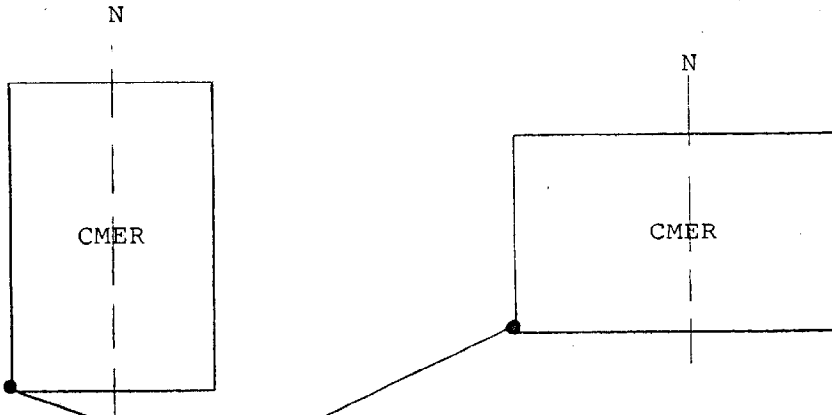
10. Size of Sheet (check one):

36 x 54     36 x 60     Other     Specify 36 x 60

11. Sheet Orientation (check one):

NYX = 1

NYX =  $\emptyset$



12. Plotter Origin: S.W. Corner of Sheet (not necessarily a grid intersection)

Latitude 30 ° 18 ' 17 "

Longitude 89 ° 24 ' 43 "

13. G.P.'s of triangulation and/or signals attached

14. Material Desired: Tracing Paper     Mylar

Smooth Sheet     Other     Specify \_\_\_\_\_

15. Remarks: \_\_\_\_\_  
\_\_\_\_\_

GEOGRAPHIC NAMES

Name on Survey	Source of Name										
	A	B	C	D	E	F	G	H	K		
	ON CHART NO.	ON PREVIOUS SURVEY NO.	ON U.S. QUADRANGLE MAPS	FROM LOCAL INFORMATION	ON LOCAL MAPS	P.O. GUIDE OR MAP	RAND McNALLY ATLAS	U.S. LIGHT LIST			
Bayou Acadian ✓											1
Bayou Brewer ✓											2
Bayou Enciente ✓											3
Bayou la Croix ✓											4
Bayou Portage ✓											5
Bay St. Louis ✓											6
Bay St. Louis Bridge ✓											7
Bay Waveland Yacht Club ✓											8
Breath Bayou ✓											9
Cameron Island ✓											10
Catfish Bayou ✓											11
Cedar Bayou ✓											12
Cedar Point ✓											13
Coward Point ✓											14
Cutoff Bayou ✓											15
Cutoff Lake ✓											15
De Lisle ✓											17
De Lisle Bayou ✓											18
Edwards Bayou ✓											19
Grassy Point ✓											20
Henderson Point (P.P.)											21
Johnson Bayou											22
Joes Bayou ✓											23
Jourdan River ✓											24
Little Bay ✓											25

GEOGRAPHIC NAMES

Name on Survey	Source of Name										
	A	B	C	D	E	F	G	H	K		
Mellini Bayou (1)											1
Mellini Bayou (2)											2
Mellini Point ✓											3
Mississippi Sound ✓											4
Pass Christian (Ppl)											5
Rotten Bayou ✓											6
St. Louis Bay ✓											7
Shell Beach (Ppl)											8
Umbrella Bayou ✓											9
Watts Bayou ✓											10
Whitfield Bight ✓											11
Wolf River ✓											12
Young Bayou ✓											13
											14
											15
											16
											17
											18
											19
											20
											21
											22
											23
											24
											25

Approved:

*Chas. E. Hammer*

Chief Geographer - C 395

12 Sept. 1979

ATLANTIC MARINE CENTER  
APPROVAL SHEET  
FOR  
AUTOMATED SURVEY H- 9156

- 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/ ~~been~~ been made. A new final sounding printout has/ ~~been~~ been made.

Date: Jan 4, 1977

Signed: William J. Joma

Title: Chief, Verification Branch

- B. The verified smooth sheet has been inspected, is complete, and meets the requirements of the Hydrographic and AMC Manuals. Exceptions are listed in the verifier's report.

Date: 1/12/77

Signed: RA Trause

Title: Chief, Processing Division

**HYDROGRAPHIC SURVEY STATISTICS**  
**HYDROGRAPHIC SURVEY NO. H-9156**

**RECORDS ACCOMPANYING SURVEY:** To be completed when survey is registered.

RECORD DESCRIPTION		AMOUNT	RECORD DESCRIPTION		AMOUNT	
SMOOTH SHEET with Smooth PNO & excess overlay		1	BOAT SHEETS (mylar)		1	
DESCRIPTIVE REPORT		1	OVERLAYS ( <del>Wire Sweep</del> )		1 4	
DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/ SOURCE DOCUMENTS
ENVELOPES	1					1-misc.data
CAHIERS	1 2-with printouts					
VOLUMES	19					
BOXES			1-smooth			
T-SHEET PRINTS (List) TP-00036, TP-00037, TP-00038, and TP-00039 <sup>not received at registration 8/2</sup>						
SPECIAL REPORTS (List)						

**OFFICE PROCESSING ACTIVITIES**

The following statistics will be submitted with the cartographer's report on the survey

PROCESSING ACTIVITY	AMOUNTS			
	PRE-VERIFICATION	VERIFICATION	REVIEW	TOTALS
POSITIONS ON SHEET				4613
POSITIONS CHECKED		800		
POSITIONS REVISED		651		
DEPTH SOUNDINGS REVISED		300		
DEPTH SOUNDINGS ERRONEOUSLY SPACED				
SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED		4		
	TIME (MANHOURS)			
TOPOGRAPHIC DETAILS		60		
JUNCTIONS		6		
VERIFICATION OF SOUNDINGS FROM GRAPHIC RECORDS		24		
SPECIAL ADJUSTMENTS		48		
ALL OTHER WORK		870		
<b>TOTALS</b>		<b>1008</b>		
PRE-VERIFICATION BY D. Calland and J. Griffin		BEGINNING DATE 07/02/73	ENDING DATE 07/25/73	
VERIFICATION BY J. Murphy, W. Guy, and H. Smith		BEGINNING DATE 06/07/74	ENDING DATE 06/23/76	
REVIEW BY <i>Q.C.I. - F.P. SAULSBURY - 244 hrs</i> H.R. Smith		BEGINNING DATE 12/15/76	ENDING DATE <i>9-1-79</i> 12/29/76	

*J. Murphy 11/9/79 22 hrs*

D.J. Hill 5/14/80 4 hrs



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

APR 9 1980

OA/C351:DJH

TO: OA/CAM - Richard H. Houlder

FROM: *J. L. Lanier*  
 OA/C3 - Roger F. Lanier

SUBJECT: H-9156 (1970-71), OPR-468, Mississippi, Mississippi Sound, St. Louis Bay, Report of Compliance with Project Instructions

The smooth sheet and Descriptive Report for the subject survey have been examined. In addition to the Quality Control Report, dated September 11, 1979 (copy attached), and the Hydrographic Survey Inspection Team Report, dated January 13, 1977, the following is submitted:

Several charted features originating with prior topographic surveys were not adequately investigated and have been carried forward to the present survey. These features will be considered for further work.

<u>Item</u>	<u>Latitude N</u>	<u>Longitude W</u>	<u>Origin</u>
1. Submerged piling	30°18'37.1"	89°19'16.4"	T-9379 S/2 (1950-56)
2. Submerged pile	30°18'41.4"	89°19'18.2"	T-9379 S/2 (1950-56)
3. Pier ruins	30°19'22.9"	89°17'32.8"	T-9379 N/2 (1950-56)
4. Pier ruins	30°19'23.7"	89°17'32.6"	T-9379 N/2 (1950-56)
5. Submerged pile	30°19'28.9"	89°19'28.0"	T-9379 N/2 (1950-56)
6. Pier ruins	30°19'34.1"	89°17'33.9"	T-9379 N/2 (1950-56)
7. Pier ruins	30°19'34.2"	89°19'44.9"	T-9379 N/2 (1950-56)
8. Submerged pile	30°19'34.9"	89°19'36.3"	T-9379 N/2 (1950-56)
9. Pier ruins	30°19'36.6"	89°17'33.0"	T-9379 N/2 (1950-56)
10. Pier ruins	30°20'04.2"	89°23'01.9"	T-9788 (1951-56)
11. Pier ruins	30°22'23.7"	89°20.02.7"	T-9379 N/2 (1950-56)

Except as noted, the survey is complete and adequate for the purposes intended and is in compliance with Project Instructions OPR-468, dated October 25, 1968.

Attachment

cc:  
 OA/C352 w/o att.



**10TH ANNIVERSARY 1970-1980**

**National Oceanic and Atmospheric Administration**

A young agency with a historic  
 tradition of service to the Nation

Reg. No. H-9156

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 REQ'D \_\_\_\_\_ INITIALS \_\_\_\_\_

REMARKS:

Reg. No. H-9156

The magnetic tape containing the data for this survey has not been corrected to reflect the changes made during evaluation and review.

When the magnetic tape has been updated to reflect the final results of the survey, the following shall be completed:

MAGNETIC TAPE CORRECTED

DATE 9-23-82 TIME REQ'D \_\_\_\_\_ INITIALS JAC

REMARKS:

ATLANTIC MARINE CENTER  
VERIFIER'S REPORT

REGISTRY NO. H-9156

FIELD NO. 742-10-1-70

Mississippi Sound, St. Louis Bay

SURVEYED: October 13, 1970 through June 10, 1971

SCALE: 1:10,000

PROJECT NO.: OPR-468

SOUNDINGS: Raytheon Fathometer 723  
Pole and Hand Lead

CONTROL: Visual

Chief of Party ..... George C. Chappell  
Surveyed by ..... John F. Campton  
Automated Plot by ..... Calcomp Plotter #618 (AMC)  
Verified and Inked by ..... Harry R. Smith

1. Introduction

No unusual problems were encountered during this survey.

2. Control and Shoreline

a. The control is adequately described in the Descriptive Report.

b. The shoreline was taken from TP-00036, TP-00037, TP-00038, and TP-00039 final reviewed manuscripts. Date of photography - October 1969, date of field edit - December 1970.

3. Hydrography

a. The soundings at crossings are in good agreement, with a few disagreements of one foot or less due to pole soundings in soft bottom. ✓

b. The standard depth curves were adequately delineated. The supplemental three foot curve was drawn since it is charted, ~~on this inshore survey.~~

c. The development of bottom configuration and least depths is adequate. See Item O in the Descriptive Report on the search for PSR No. 31.

d. The low-water line was applied as shown on the manu- *See Q.E. Report*  
scripts.



#### 4. Condition of Survey

The smooth sheet and accompanying overlays, hydrographic records, and reports are adequate to conform to the requirements of the Provisional Hydrographic Manual.

#### 5. Junctions

An adequate junction was made with survey H-9177 (1970) on the south. A junctional strip from that survey accompanies this survey.

#### 6. Comparison with Prior Surveys

##### a. H-3960 (1916-1918) 1:40,000

A comparison between the present survey and the above prior survey (which covers the main part of the Bay with only 13 lines of hydrography) shows fair agreement, with differences of from one to six feet deeper soundings on the present survey. The scale of the present survey gives a more detailed coverage of the area.

The present survey, *with the addition of items brought back from prior topo surveys* is adequate to supersede the prior surveys in the common area.

b. See Item O in the Descriptive Report concerning Wire Sweep accomplished by this survey, and the accompanying overlay.

See Item K of the Descriptive Report for hydrographer's recommendation for the remaining PSR's.

#### 7. Comparison with Chart 11372 (formerly 876-SC), 10th Edition, September 27, 1975 - The 876-SC, 2nd Edition chart used for comparison by the hydrographer is not available at the Atlantic Marine Center.

##### a. Hydrography

The charted hydrography originates with the previously discussed prior survey which requires no further consideration; and with additional data from the present survey, other NOS sources, the U.S. Corps of Engineers, and the U.S. Coast Guard.

b. There are 11 fixed and four floating aids to navigation within the limits of this survey. The aids adequately serve the purpose intended.

c. Attention is directed to the following:

(1) <sup>4</sup>Jordan River Channel Day Beacon #3 was used as topographic signal #206 on this survey. The photogrammetric review report (6902) dated February 8, 1974 states that the location of the beacon was re-determined July 28, 1971. This date is subsequent to the end of work on H-9156 (June 10, 1971) and apparently accounts for the difference in the location of the beacon on the survey and on manuscript TP-00037. *Chk: the position of Dbn "3" from TP-00037* CONCUR  
7PS

(2) There are two 6 foot soundings <sup>on the present survey</sup>, not shown on the chart, at latitude  $30^{\circ} 18' 54.35''$ , longitude  $89^{\circ} 18' 55.39''$ ; and at latitude  $30^{\circ} 18' 54.35''$ , longitude  $89^{\circ} 18' 10.10''$ .

(3) Stake from TP-00037 was not shown on the chart. Possible dangerous location on edge of channel - latitude  $39^{\circ} 20' 37''$ , longitude  $89^{\circ} 20' 43.9''$ . ✓

(4) The power cable (subm. at draw) on the Bay St. Louis Bridge and the overhead communications cable (subm. at draw) on the L&N Bridge are not shown on the smooth sheet, as the T-sheet gives no locations. CONCUR  
7PS

#### 8. Compliance with Instructions


This survey adequately complies with the Project Instructions.

#### 9. Additional Field Work

This is an excellent basic survey. Additional field work is not recommended.

Approval Sheet for H-9156

Examined and Approved:  
Hydrographic Inspection Team  
Date: 1/13/77


  
CAPT Ronald M. Buffington, NOAA  
Chief, Operations Division

  
CDR Robert A. Trauschke, NOAA  
Chief, Processing Division

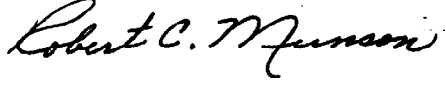
  
CDR Jeffrey G. Carlen, NOAA  
Chief, Coastal Mapping Division

C. Douglas Mason, LT(jg), NOAA\*  
Chief, EDP Branch

  
William L. Jonns  
Chief, Verification Branch

  
Guy F. Trefethen  
Verification Branch *Team Leader*

Approved/Forwarded

  
Robert C. Munson  
RADM, NOAA  
Director, Atlantic Marine Center

\* Extended TDY



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

OA/C352:FPS

September 11, 1979

TO: Glen R. Schaefer *GRS*  
Chief, Hydrographic Surveys Division

THRU: *gm*  
Chief, Quality Control Branch

FROM: F. P. Saulsbury *Francis P. Saulsbury*  
Quality Evaluator

SUBJECT: Quality Control Report for H-9156 (1970-71), Mississippi,  
Mississippi Sound, St. Louis Bay

A quality control inspection of H-9156 was accomplished to monitor the survey for obvious deficiencies with respect to data acquisition, delineation of the bottom, determination of least depths, navigational hazards, junctions, sounding line crossings, shoreline transfer, smooth plotting, decisions and actions taken by the verifier, and the cartographic presentation of data. In general, it was found to conform to the National Ocean Survey's standards and requirements except as stated in the Verifier's Report, the HIT Report, and as follows:

1. Hydrography:

a. Generally the development of the bottom is excellent. However, dredged channels and waterways were frequently developed only with lines crossing their deep axes. Lines should have been run along the deep axes in order to substantiate deep water continuity. (See Hydrographic Manual, section 4.3.5.4.)

b. Dashed black limit lines shown on the boat sheet with no identification were considered to have originated with preliminary topographic information and to have been subsequently disproved by either the hydrographer or field editor. These limit lines were not shown on the smooth sheet. The Verifier's Report gave no explanation of this omission.

c. A holiday exists in the vicinity of latitude 30°21.58'N, longitude 89°15.50'W on the present survey.

d. Form 76-40 was not furnished in the Descriptive Report. (See Hydrographic Manual, section 5.5.)



## 2. Hydrography and Verification:

a. Geographic names were not furnished in the Descriptive Report and were not shown on the smooth sheet during verification. (See Hydrographic Manual, section 7.3.12.3.)

b. Bridge clearance data were referenced to MLW on the boat sheet and the smooth sheet. These vertical clearances were revised to MHW during quality control inspection. Clearances shown on several bridges are in conflict with charted bridge clearances. Resolution of the conflicts by the hydrographer would have been desirable but as this was not accomplished the conflicts are referred to the compiler for resolution.

c. Wrong editions of chart 11372 (formerly 876-SC) were compared with the present survey by both the hydrographer and Verification Branch. These were respectively 1966 and 1975 editions of the chart. It is desirable that the hydrographer use the latest edition (updated by Notices to Mariners) available at the time of the survey and that the same updated edition be used by both the hydrographer and verifier. The present survey should have been compared with an updated 1969 edition of chart 11372 (formerly 876-SC). Reference might also need to be made to the 1970 edition as the survey was completed in 1971.

d. Several charted foreshore items such as piers and piles, not shown on the contemporary topographic surveys, were neither mentioned by the hydrographer nor addressed during verification.

The sources of these charted items originate with the following prior topographic surveys:

- T-7015b G.C. (1946)
- T-9379N/2 and S/2 (1950-56)
- T-9786 (1952-56)
- T-9788 (1951-56)
- T-11807 (1966-67)

These surveys were examined and appropriate information was carried forward to the present survey depending on the probable condition of the items.

e. Piers and ruins not shown on the contemporary topographic surveys and located by the hydrographer are shown on the boat sheet in black ink instead of red ink. Perhaps, if the hydrographer had transferred topographic information in blue ink on the boat sheet and then inked in black this data immediately after verification or noted the nonexistence of certain features besides delineating new construction in red ink, some of the following problems might have been avoided. (See Hydrographic Manual, sections 4.2.7 and 4.5.8.)

The hydrographer's report on page 2, paragraph G, states that "minor discrepancies between photogrammetric and hydrographic locations of piers and pilings may exist" on both shores of the bay. An examination of this survey during quality control inspection confirmed that several conflicts do exist; however, they are not considered to be minor discrepancies. This examination also revealed that Marine Center verification made little effort to reconcile these discrepancies. Several additions and revisions to fore-shore items based on an interpretation of data were effected on the smooth sheet during quality control inspection.

### 3. Verification:

a. Some depth curves were added by the quality evaluator and others were revised in instances where curves violated soundings. Occasionally, both the dotted low water curve from the contemporary topographic surveys and the zero curve determined from soundings were shown on the verified smooth sheet. The dotted low water curves in these cases were deleted during quality control inspection.

b. Marsh areas along the shoreline are not shown on the smooth sheet and can be obtained from the contemporary topographic surveys.

c. The junction on the south with H-9177 (1970-71) is adequate. Overlapping depth curves were made coincidental during quality control inspection.

d. Signal 309 used for horizontal control was transferred to the smooth sheet from the boat sheet during quality control inspection.

e. Some signal descriptions were added to the smooth sheet during quality control inspection.

f. Light List names for lights used as signals on the present survey were added to the smooth sheet during quality control inspection.

g. Tide correctors useful in reducing soundings and elevations are frequently omitted on detached positions in the final sounding printout.

h. Heights for several detached items determined by the hydrographer to uncover at the sounding datum were added to the smooth sheet during quality control.

i. "Joins Main Sheet" and "Scale 1:10,000" were annotated as legends to both insets shown on the smooth sheet. Longitudinal line 80°15'30"W

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was added to Inset A as a "tie line" with the main sheet. Longitudinal line  $89^{\circ}15'30''\text{W}$  and latitudinal line  $30^{\circ}21'30''\text{N}$  were added to Inset B to provide a grid for plotting purposes. The aforementioned longitudinal line also serves as a "tie line" with the main sheet. Overlapping depth curves were made coincidental and omitted depth curves were added.

j. The cartographic presentation of descriptive information on the smooth sheet was considered poor. Careless placement of notes occasionally obliterated meaningful survey information and also necessitated the frequent use of leaders in survey areas congested with foreshore features. Several revisions in the placement of descriptive information to clear important survey items, to eliminate the use of leaders where possible, and, in general, to graphically represent survey data legibly so as to be usable for charting were made during quality control inspection.

k. The smooth plotting of soundings was adequate except where soundings segmented the delineation of some piers (piers could have been mistaken as ruins) and obliterated or distorted some valid islets transferred to the smooth sheet from the contemporary topographic surveys. The configurations of piers were improved by excessing insignificant depths or manually replotting soundings so as to show the entire structure. Likewise, islets were properly delineated by the quality evaluator.

l. Each signal identifier on the smooth sheet should have been given a three-digit number for automated processing.

#### 4. Compiler:

a. The offshore item plotted in latitude  $30^{\circ}19.58'\text{N}$ , longitude  $89^{\circ}17.56'\text{W}$  on the present survey originating from TP-00039 (1969-70) was not identified or mentioned by the hydrographer. Because of the many platforms formerly in this area, it is considered to be a platform by the quality evaluator.

b. Shoreline and islets are to be charted from the contemporary topographic manuscripts except in latitude  $30^{\circ}21.90'\text{N}$ , longitude  $89^{\circ}17.59'\text{W}$  where the topographic islet is now shown to be awash at MLW on the smooth sheet. Also, the shoreline in the vicinity of latitude  $30^{\circ}20.10'\text{N}$ , longitude  $89^{\circ}15.18'\text{W}$  was obtained from hydrographic information and is shown in red on the smooth sheet. Chart these changes as shown on the present survey.

A comparison between the contemporary topographic sheets and hydrographic smooth sheet reveals differences in the condition of features offshore from the mean high water line. This situation is probably due to changes that occurred within the area subsequent to the date of the topographic

H-9156

5

survey. Therefore, the smooth sheet should be consulted for final delineation in charting features of this nature.

Selected soundings that break the shoreline in narrow waterways due to the scale of the survey plot should be charted in water areas.

cc:  
OA/C35  
OA/C351

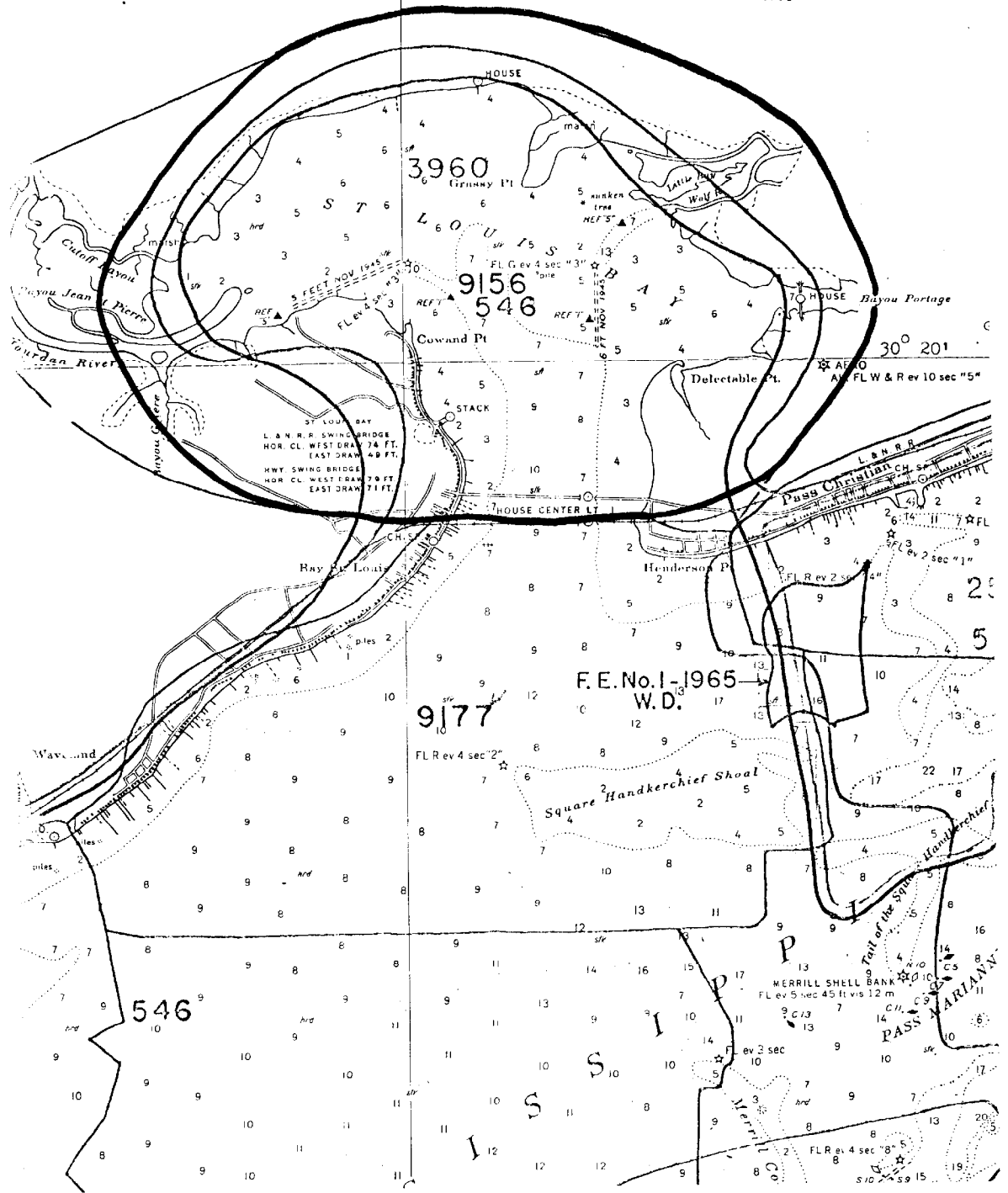
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89° 20'

15'

Cht. 1268



**RECORD OF APPLICATION TO CHARTS**

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. 9156

**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
11372	7-3-80	<i>D. Williams</i>	Full <del>Part Before</del> After Verification Review Inspection Signed Via Drawing No. 15
			Full Part Before After Verification Review Inspection Signed Via Drawing No.
			Full Part Before After Verification Review Inspection Signed Via Drawing No.
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