

# 8591

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Diag. Cht. No. 1266-2.

FORM C&GS-504	
U.S. DEPARTMENT OF COMMERCE ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION COAST AND GEODETIC SURVEY	
DESCRIPTIVE REPORT	
Type of Survey	Hydrographic
Field No.	ECFP-10-9-61
Office No.	H-8591
LOCALITY	
State	Alabama
General locality	Mobile River
Locality	Vicinity of Twelvemile Island
1961	
CHIEF OF PARTY	
J. R. Flaggmier	
LIBRARY & ARCHIVES	
DATE	8-28-62

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

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

REGISTER NO. H-8591

Field No. ECP 10-9-61

State Alabama

General locality Mobile Bay  
River

Locality Vicinity of Twelvemile I.  
Mobile River and tributaries between lat.  $30^{\circ}46.3'$  -  $30^{\circ}52.4'$

Scale 1:10,000 Date of survey 3/14/61 thru 5/26/61

Instructions dated 18 September 1959

Vessel East Coast Field Party - Launch CS-183 & Skiff No.2

Chief of party John R. Plaggmier

Surveyed by Robert A. Lewis

Soundings taken by ~~athometer~~ graphic recorder, hand lead, ~~and~~ sounding pole

Fathograms scaled by Party Personnel

Fathograms checked by Party Personnel

Protracted by F.R. Howell

Soundings penciled by F.R. Howell and G.F. Trefethen

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

REMARKS:



JD

DESCRIPTIVE REPORT  
TO ACCOMPANY HYDROGRAPHIC SURVEY H-8591  
(Field No. ECFP 10-9-61)

SCALE: 1:10,000                      1961                      EAST COAST FIELD PARTY  
CHIEF OF PARTY:                      JOHN R. PLAGGMIER  
SURVEYED BY:                      R.A. LEWIS

\* \* \* \* \*

A. PROJECT

Work on Project CS-410 was executed in accordance with instructions 22/MEK, ECFP-2 dated 18 September 1959. ✓

B. SURVEY LIMITS AND DATES

This survey is in the vicinity of Mobile Bay, Alabama and covers the area of the Mobile River and tributaries between latitudes 30°-46.3' and 30°-52.4'. The bend in the Mobile River east of longitude 87°-58.4', 1 mile north of Twelvemile Island, is shown on contemporary survey H-8590 (Field No. ECFP 10-8-61). ✓

This survey makes juncture with contemporary survey H-8590 (ECFP - 10-8-61) on the east, H-8586 (ECFP 10-13-61) and H-8589 (ECFP 1-3-61) on the south.

C. SOUNDING VESSELS

Launch CS-183 and Skiff No.2 (14 ft. aluminum) were used in this survey.

VESSEL	IDENTIFYING COLOR
Launch CS-183	violet
Skiff No. 2	green

 ✓

D. SOUNDING EQUIPMENT

An EDO Graphic Recorder, model 2550, serial No. 15 was used to obtain soundings on Launch CS-183. Skiff No. 2 used an 808J fathometer, serial No. 154, with transducers mounted in the bilges.

Corrections to be applied to echo soundings were determined from daily bar checks and simultaneous comparisons. An abstract of these corrections are tabulated in Appendix "B" of this report. ✓

No unusual difficulties were encountered with the sounding equipment.

E. SMOOTH SHEET

The smooth sheet projection was made in the Washington Office by a projection ruling machine. ✓

#### F. CONTROL

Horizontal control was obtained by standard visual three-point sextant fix methods. Appendix A of this report contains a complete list of control used and the quality and source of control. ✓

In small bayous and creeks, where it was impossible to obtain a three-point fix, the sounding vessel's position was determined in relation to prominent changes in the shoreline.

#### G. SHORELINE

Shoreline detail was transferred from ~~blue-line prints of~~ manuscripts T-10931, T-10975 and T-10977, <sup>reviewed</sup> T-10928, T-10929. ✓

There were no notable changes in the shoreline.

#### H. CROSSLINES

In the Mobile River crosslines were run in excess of 25% of the regular system of sounding lines. Crossings were in good agreement. ✓  
It was considered impractical to run crosslines in bayous with widths less than 200 meters.

#### I. JUNCTIONS

Depths at the junctions with the surveys listed section B are in good agreement and depth curves can be adequately drawn at these junctions. ✓

#### J. COMPARISON WITH PRIOR SURVEYS

A comparison with prior surveys, Register Nos. 1911, 1910 and 1909 dated 1888, reveals general agreement with no important changes to be noted. ✓

#### K. COMPARISON WITH CHART

This survey was compared with Chart 1266; 16th edition, 30 January 1961, scale 1:80,000. Depths shown on the chart are in good agreement with representative depths from this survey. ✓

The following Pre-Survey Review Items are within the limits of this survey: ✓

Review Item #39  
wrecks from T-5530 (1934)

These wrecks were searched for, both visually along the river banks and with a fathometer while drift sounding 10 - 50 meters from the high-water-line, with the following results: - The wrecks shown on the west bank of the Mobile River at lat.  $30^{\circ}-46.8'$  are no longer in evidence and should be deleted. The wrecks shown on the east bank of the river at lat.  $30^{\circ}-47.3'$  are still in existence. Portions of the hulls are visible above MHW and it is recommended the charting symbols for these wrecks ✓

K. COMPARISON WITH CHART (CONT'D)

Review Item #39 (cont'd) be changed from sunken wrecks to stranded wrecks. (*Changed on Ed. 10/14/72*)  
*uncut*

Review Item #40  
wrecks from T-5530  
(1934) and C. of E.  
1946 (Bp. 44845-56)

These wrecks were searched for, both visually and with a fathometer, results proved negative. It is recommended the sunken wreck symbols be deleted from the chart. ✓

L. ADEQUACY OF SURVEY

This survey is complete and considered adequate to supercede prior surveys for charting purposes. ✓  
*S*

M. AIDS TO NAVIGATION

There are two fixed aids to navigation on this survey, Spanish River Light and Twelve Mile Island Light. These aids adequately serve the purpose for which they were established. There are no floating aids to navigation within the boundaries of this survey. ✓

N. STATISTICS

Vessel	Number of Positions	Nautical miles of Sdgs.
Launch CS-183	286	36.1
Skiff No. 2	<u>198</u>	<u>32.2</u>
TOTALS	484	68.3

Total area surveyed - 4.4 square nautical miles.

A portable automatic tide gage, located at Lower Hall Landing, furnished tide control for the survey. Data for reduction of the soundings were taken directly from the station records without time or range corrections. See Appendix C, "TIDAL NOTE", for additional information on this station. *Tansaw R.*

There were no current stations within the limits of this survey.

Submitted by

Robert A. Lewis  
Survey Tech.

INDEX OF APPENDICES

- A. LIST OF SIGNALS
- B. ABSTRACT OF CORRECTIONS TO ECHO SOUNDINGS
- C. TIDAL NOTES
- D. APPROVAL SHEET

APPENDIX B

ABSTRACT OF CORRECTIONS TO ECHO SOUNDINGS

Launch CS-183

Date & Day Ltr.	Recorder No.	Fath. Depth (ft.)	Corr. (ft.)
5/9/61 a	EDO 255C #15	6.0 to 8.0	+0.4
		8.1 to 27.0	+0.2
		27.1 to 31.0	+0.4
		31.1 to 34.0	+0.6
		34.1 to deeper	+0.8
5/10 thru 18/61 b thru f	EDO 255C #15	6.0 to 12.0	0.0
		12.1 to 27.0	+0.2
		27.1 to 31.0	+0.4
		31.1 to 34.0	+0.6
		34.1 to deeper	+0.8

Skiff No. 2

5/18 thru 26/61 a thru c 808J 154 \* 0.0 correction all depths

Sounding pole comparisons taken between 3.0 ft. and 12.0 ft. indicated no corrections necessary within this depth range. A calibrated bar check was not available for this vessel. Leadline comparisons were deemed unreliable due to the irregularity of the river bottom in this vicinity. A theoretical correction was not applied because it is felt it might possibly add to an actual correction resulting in a greater error in soundings.

APPENDIX C

TIDAL NOTE

Gage location: *(Not in limits of survey)*  
Lower Hall Landing, Tensaw River,  
Alabama  
lat.  $30^{\circ} -49.2'$   
long.  $87^{\circ} -54.9'$

Gage Type: Portable Automatic

Staff: No time or height corrections were  
applied to the results obtained  
from the gage in reducing soundings.

90th meridian time was used at this station.



APPENDIX D

APPROVAL SHEET TO ACCOMPANY

Hydrographic Sheet H-8591 (E.C.F.P. 10-9-61)

Project OPR- 410

The records, correction, and all field work was supervised by  
LCDR John R. Plaggmier.  
All office work was supervised by LCDR. Steven L. Hollis Jr.  
The report and record for this survey are complete and adequate  
to the best of my knowledge.

Approved and forwarded,  
*Steven L. Hollis Jr.*  
Steven L. Hollis Jr.  
LCDR , C&GS  
Officer in Charge

LIST OF SIGNALS

Hydrographic Survey H-8591 (ECFP 10-9-61)

*TOPO*  
TRIANGULATION STATIONS

RIV Spanish River Light, 1959  
WEL Twelve Mile Island Light, 1959

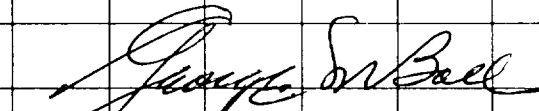
PHOTO-HYDRO SIGNALS

<u>From T-10931</u>	<u>From T-10975</u>	<u>From T-10977</u>
ANN	AFT	APT
BAG	ANT	AVE
BAT	ARM	DAY
CON	CUT	DEB
DOC	DON	DIM
DOG	FAR	DIX
ERA	FAT	EBB
FLY	FED	FIG
FOR	FEW	HAT
GAL	FEZ	HIS
GOT	GAS	HOE
GUY	GUM	HOW
ICE	HEM	KID
IVY	HER	KIM
JOB	JOE	LAM
JUP	JOY	LOG
LEO	KED	NEW
LIP	KEN	NIP
LUX	MAL	NUB
MOO	MOP	OBI
NIT	MUG	OFF
NON	NAT	PEP
OWL	NAY	PIT
PAL	NED	PRO
PAR	PAD	SIS
PIN	PEG	TAX
PUP	PET	VAN
QUO	PLY	WAS
RUM	POT	WHO
STY	SAX	ZAG
TOY	SHE	
VEX	SIP	
WOO	SIR	
YES	SKI	
	TRY	
	WAD	
	WAN	
	WAX	
	WED	
	ZIT	

GEOGRAPHIC NAMES

Survey No. H-8591

Name on Survey	<div style="display: flex; justify-content: space-around; font-size: small;"> <span>On Chart No. 1266</span> <span>On previous survey No.</span> <span>On U. S. quadrangle Maps</span> <span>From local information</span> <span>On local Maps</span> <span>P. O. Guide or Map</span> <span>Rand McNally Atlas</span> <span>U. S. Light List</span> </div>										
	A	B	C	D	E	F	G	H	K		
Bayou Sara	x										1
Black Creek				x							2
Catfish Bayou	x										3
Chicory Creek				x							4
Chuckfee Bay	x								x		5
Gunnison Creek	x										6
Hickory Bayou				x							7
Jims Creek	x										8
Little Catfish Bayou				x							9
Mobile River	x								x		10
Louis Bayou				x							11
Spanish River	x										12
Stauter Creek				x							13
Steele Creek				x							14
Twelvemile Island	x								x		15
Williams Creek				x							16
Big Bayou Canot	x										17
Little Bayou Canot	x										18
											19
											20
											21
											22
											23
											24
											25
											26
											27

  
 Geographic Names Section  
 2 October 1962

1240

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Coastal Surveys:~~

October 25, 1962

Division of Charts: R. H. Carst~~z~~ens

Plane of reference approved in  
3 volumes of sounding records for

HYDROGRAPHIC SHEET 8591

Locality Mobile Bay, Alabama

Chief of Party: J. R. Plaggmier(1961)  
Plane of reference is Mean low water, reading  
2.0 ft. on tide staff at Lower Hall landing  
9.2 ft. below B. M. No 1 (1961)

Height of mean high water above plane of reference is: 1.2 ft.

Condition of records satisfactory except as noted below:

*Robert A. Cumming* 8/14/73  
Chief, Tides and Currents Branch

~~Chief, Division of Tides and Currents.~~

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. 8591....

Records accompanying survey: Smooth sheets **1**....;  
 boat sheets **1**....; sounding vols. **3**....; wire drag vols. ....;  
 Descriptive Reports **1**....; graphic recorder envelopes **3**....;  
 special reports, etc. ....  
 .....

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

Number of positions on sheet	.....	<b>484</b>
Number of positions checked	.....	<b>96</b>
Number of positions revised	.....	<b>3</b>
Number of soundings revised (refers to depth only)	.....	<b>21</b>
Number of soundings erroneously spaced	.....	<b>38</b>
Number of signals erroneously plotted or transferred	.....	<b>0</b>
Topographic details	Time	<b>20</b>
Junctions	Time	<b>10</b>
Verification of soundings from graphic record	Time	<b>23</b>
Special adjustments	Time	<b>0</b>

Verification by *J. Bailey*... Total time **127**... Date **6-8-71**

Reviewed by *Robert W. Derkazarian*... Time **66**... Date **8-14-73**  
*Steven R Baumgardner*  
**30**

*Insp. Carstens* **7** **5/29/73**

OFFICE OF MARINE SURVEYS AND MAPS  
MARINE CHART DIVISION  
HYDROGRAPHIC SURVEY REVIEW

REGISTRY NO. H-8591

FIELD NO. ECFP-10-9-61

Alabama, Mobile River, Vicinity of Twelvemile Island

SURVEYED: May 9-26, 1961

SCALE: 1:10,000

PROJECT NO.: CS-410

SOUNDINGS: EDO 255C Depth Recorder,  
808J Fathometer, and Hand  
Leadline

CONTROL: Visual fixes on  
shore signals

Chief of Party .....	J. R. Plaggmier
Surveyed by .....	R. A. Lewis
Protracted by .....	F. R. Howell
Soundings plotted by .....	F. R. Howell
.....	G. F. Trefethen
Verified and inked by .....	J. R. Bailey
Reviewed by.....	R. W. DerKazarian
.....	Date: August 14, 1973
Inspected by .....	R. H. Carstens

1. Description of the Area

This survey is north of the northern end of Mobile Bay, Alabama. It covers a portion of Mobile River and its tributaries and a portion of Chuckfee Bay. The river bottom is generally smooth with scattered deep holes, and a few foul areas. The predominant bottom characteristic is soft mud.

2. Control and Shoreline

The origin of control is adequately covered in Part F of the Descriptive Report.

The shoreline originates with reviewed photogrammetric manuscripts T-10928, T-10931, T-10977 of 1957-1961 and T-10929 and T-10975 of 1957 - 1961.

3. Hydrography

A. Depths at crossings are in good agreement.

B. The usual depth curves are adequately delineated except for the low-water line that was not developed because of its close proximity to shore, and to numerous foul areas.

C. The development of the bottom configuration and the investigation of least depths are considered adequate, except that delineation of the bottom in some of the larger bayous is incomplete where only one line of soundings was run.

#### 4. Condition of the Survey

The sounding records, smooth plotting, and Descriptive Report are adequate and conform to the requirements of the Hydrographic Manual, except that:

A. Several stamps in the records were not completed according to the Hydrographic Manual, for example stamp #33 did not have the fathoms per second entered, and stamp # 36 was never entered or signed by the Chief of Party.

B. It should be noted that malfunctioning of the 808 depth recorder used on skiff #2, a and b day, serial #154 did not properly produce the position indicator (fix mark) on the trace and provide a check on the stylus arm length.

C. The Tide Note for Hydrographic Sheet was not signed prior to smooth plotting of the survey.

#### 5. Junctions

Adequate junctions were made with H-8590 (1961-62) on the east, and H-8586 (1961), H-8589 (1961) both on the south. There are no surveys on the north or west.

#### 6. Comparison with Prior Surveys

A. H-229 (1850) 1:10,000  
H-737 (1860) 1:10,000

These surveys cover a very small portion of the present survey. A comparison between the prior and present indicates a variable shifting of the channel but with small differences in the soundings. The present survey is adequate to supersede these prior surveys in the common area.

- B. H-1909 (1888) 1:5,000  
 H-1910 (1888) 1:5,000  
H-1911 (1888) 1:5,000

These surveys cover only the portion of Mobile River on this survey. Minor shoaling of 2 feet has occurred in some areas but for the most part the river has deepened in some areas as much as 6 to 10 feet. In places the channel has shifted slightly. The present survey is adequate to supersede these prior surveys in the common area.

7. Comparison with Chart 1266 (latest print date October 14, 1972, 26th Ed.)

A. Hydrography

The charted hydrography originates largely with the partial application of the boat sheet of the present survey and with surveys previously discussed. Hydrography was also charted from U.S. Corps of Engineers surveys Bp 44845-46 of 1946. Only minor differences were noted between present depths and charted depths.

Attention is directed to the wrecks charted in approximate lat.  $30^{\circ}46.8'N.$ , long.  $88^{\circ}01.2'W.$  and lat.  $30^{\circ}48.7'N.$ ,  $88^{\circ}00.5'W.$  from T-5530 (1934) which were investigated and disproved. It is recommended that they be deleted from the chart. See Descriptive Report paragraph K.

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

B. Aids to Navigation

The fixed aids to navigation on the present survey are in substantial agreement with the charted positions and adequately mark the features intended.


8. Compliance with Project Instructions

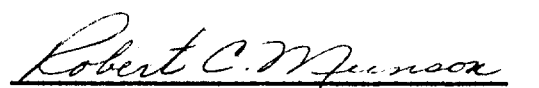
This survey adequately complies with the project instructions.

9. Additional Field Work

This is a good basic survey and no additional field work is recommended.

Examined and Approved:

  
 Chief  
 Marine Chart Division

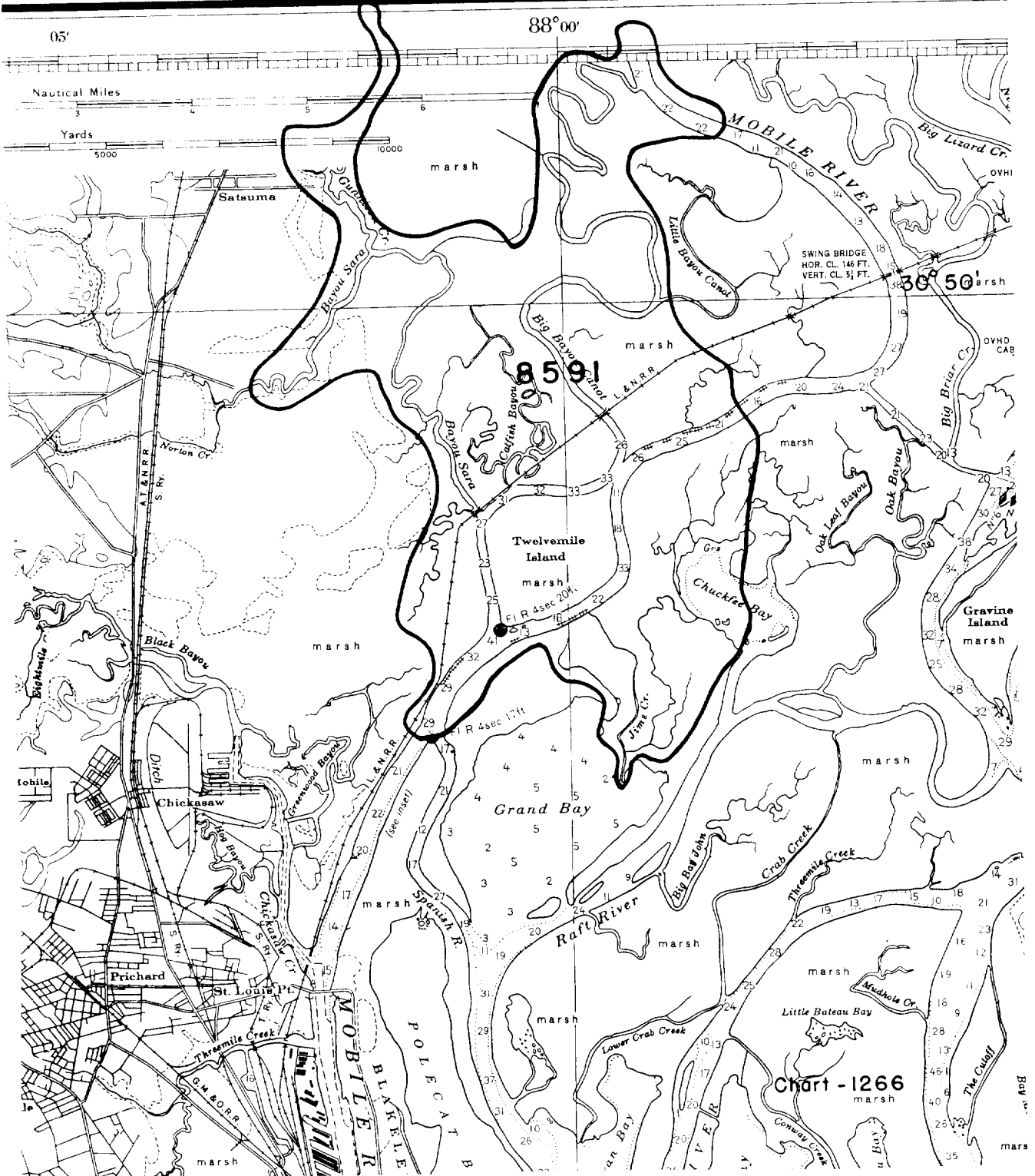
  
 Associate Director  
 Office of Marine Surveys and Maps



## Items for Future Presurvey Review

This survey is in the delta waterways at the northern end of Mobile Bay. The bottom is considered adequately developed on the present survey. Variable shifting of the river has occurred since the prior surveys.

Position Lat.	Index Long.	Bottom Change Index	Use Change Index	Resurvey Cycle
305	881	2	2	50 yrs.
305	880	3	2	50 yrs.
304	881	3	2	50 yrs.
304	880	3	2	50 yrs.



05'

88° 00'

Nautical Miles

Yards

5000

10000

SWING BRIDGE  
HOR. CL. 146 FT.  
VERT. CL. 5 1/2 FT.

8591

30° 50'

Twelvemile  
Island  
marsh

Grand Bay

Chart - 1266  
marsh

# NAUTICAL CHARTS BRANCH

SURVEY NO. H-8591

## Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
4/4/63	1266	John P. Weir	<i>Part. Applied</i> Before <del>After</del> Verification and Review
5/23/90	11376	L. Ankerman	Before After Verification and Review <i>fully Applied</i>
			Before After Verification and Review
			Before After Verification and Review
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M-2168-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.