

8590

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-10-8-61 Office No. H-8590

LOCALITY

State Alabama

General locality Tensaw River

Locality Gravine Island to Negro Lake

19 61-62

CHIEF OF PARTY

J. R. Flaggmier & S. L. Hollis, Jr.

LIBRARY & ARCHIVES

DATE 10/31/62

USCOMM-DC 37022-P66

8590

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-8590

Field No. ECFP 10-8-61

State ALABAMA

General locality MOBILE BAY TENSAW RIVER

Locality GRAVINE I. TO NEGRO LAKE
TENSAW RIVER & TRIBUTARIES

Scale 1:10,000 Date of survey 4/24/61 thru 1/16/62

Instructions dated 18 September 1959

Vessel Launch CS-183 and Skiff No. 2

Chief of party LCDR. JOHN R. FLAGGMIER & LCDR. STEVEN L. HOLLIS, JR.

Surveyed by ROBERT A. LEWIS

Soundings taken by fathometer, graphic recorder, ~~echo sounder~~ sounding pole

Fathograms scaled by Party Personnel

Fathograms checked by Party Personnel

Protracted by G. F. Trefethen

Soundings penciled by G. F. Trefethen

Soundings in ~~English~~ feet at MLW ~~MLW~~

REMARKS:

270
H

DESCRIPTIVE REPORT
TO ACCOMPANY HYDROGRAPHIC SURVEY H-8590
(Field No. ECFP 10-8-61)

SCALE: 1:10,000 1961 EAST COAST FIELD PARTY

CHIEF OF PARTY: JOHN R. FLAGGMIER &
STEVEN L. HOLLIS, JR.

SURVEYED BY: ROBERT 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 portion of the Tensaw River and tributaries between latitudes 30°45.7' and 30°52.9'. The bend in the Mobile River east of Longitude 87°58.4' is also included within the limits of this survey. ✓

This survey makes junction with contemporary surveys H-8589 (ECFP 10-3-61) on the south and H-8591 (ECFP 10-9-61) on the west. .

C. SOUNDING VESSELS

Vessels used for sounding were Launch CS-183 and a 14-foot aluminum skiff designated Skiff #2. Identifying colors are:

Launch CS-183	Violet
Skiff #2	Green

 ✓

D. SOUNDING EQUIPMENT

An EDO graphic recorder, model 255C - serial #15, was used on Launch CS-183. An 808j fathometer, serial #154, was used on Skiff #2 with transducers mounted in the bilges. A bar check was taken daily to determine instrumental corrections to be applied to the soundings obtained with the EDO recorder. Corrections to be applied to the 808j fathometer were obtained from simultaneous comparisons between a sounding pole and the fathometer. ✓

No unusual difficulties were encountered with the sounding equipment.

E. SMOOTH SHEET

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

F. CONTROL

Horizontal control was obtained by standard visual three-point 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-10973, T-10974, T-10975, T-10976, T-10977, and T-10978. ✓

The high-water-line on the west bank of the river, latitude $30^{\circ}47.5'$ longitude $87^{\circ}55.9'$ to latitude $30^{\circ}48.4'$, longitude $87^{\circ}55.75'$, has receded approximately 5 to 20 meters. Indicated by red dashed shoreline. ^{48.1}

H. CROSSLINES

Crosslines were run to the extent of 20% of the principal system. Soundings at crossings were in favorable agreement. It was considered impractical to run crosslines in bayous with widths less than 200 meters. ✓

I. JUNCTIONS

Depths at junctions with contemporary surveys, listed in Section B of this report, are in good agreement and depth curves can be adequately drawn. ✓

J. COMPARISON WITH PRIOR SURVEYS

There were no prior surveys available of the area covered by this sheet. ✓

K. COMPARISON WITH THE CHART

This survey was compared with Chart 1266; 16th edition, 30 January 1961, scale 1:80,000. Agreement is good for the most part, with the following changes to be noted: ✓

The marked channel at latitude $30^{\circ}48.25'$, longitude $87^{\circ}55.45'$ is shown on the chart as having a controlling depth of 25 feet; this survey reveals a controlling depth of 18 feet at a width of 20 meters. This channel has apparently shifted approximately 50 meters south of its charted location. Buoys #6 and #8 are also off station; see section "M" of this report.

Soundings in the vicinity of Lower Hall Landing, latitude $30^{\circ}49.2'$, show depths of 6 feet. A 55-foot depth is presently charted at this position.

L. ADEQUACY OF SURVEY

This survey is considered adequate to supersede prior surveys; however, there are numerous holidays in the sounding line system due to extensive anchorage of the Maritime Administration Mobile Reserve Fleet. These anchorages are shown on the boat sheet as (SHIPS). ✓

Smooth

M. AIDS TO NAVIGATION

There are 3 fixed aids to navigation and 4 floating aids within the limits of this survey. The fixed aids adequately serve the purpose for which they were established; however, buoys #6 and #8 marking the channel at latitude $30^{\circ}48.25'$, longitude $87^{\circ}55.45'$ are ~~stationed on the wrong side of the channel.~~ ^{placed near the center line} *Buoy 12 plots about 130m. south of the charted position*

N. STATISTICS

<u>Vessel</u>	<u>Number of Positions</u>	<u>Nautical Miles of Soundings</u>	
Launch CS-183	769	100.3	✓
Skiff No. 2	<u>323</u>	<u>52.1</u>	
TOTALS	1092	152.4	

Total area surveyed - 11.3 square miles.

** See Appendix C, "TIDAL NOTE", for additional information.

Submitted by

Robert A. Lewis
Survey Technician

APPENDIX D

APPROVAL SHEET TO ACCOMPANY

Hydrographic Sheet H-8590 (ECFP 10-8-61)

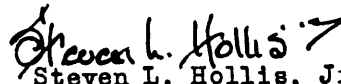
Project OPR-410

The records, corrections, 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.
LCDR, C&GS
Officer in Charge

INDEX OF APPENDICIES

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

APPENDIX A

LIST OF SIGNALS

TRIANGULATION STATIONS

PAN Louisville and Nashville Railroad Bridge Draw Span ,1935

PHOTO-HYDRO SIGNALS

From T-10976666

ABE	GAL	OWL
ACE	GEM	PAD
ACT	GET	PAR
ADD	GIN	PEP
ADO	GOT	PIE
AHA	GUS	PUG
ALP	HAG	QUO
ANT	HER	RIO
BAH	HOD	ROY
BAT	HOE	RUB
BED	HOP	RUM
BIB	HUB	SIP
BIG	HUG	SKY
BOB	JAR	SOP
BUT	JAY	SOW
CAB	JIB	SUB
CAM	JIM	TUB
CAR	JOB	USE
CAW	KEY	VAL
CON	KID	VAN
DIM	KIM	VIA
DIX	LAD	WAD
D OC	LEG	WAN
D OG	LEO	WAR
DON	LET	WIG
DOT	LIZ	WOO
D UD	LOW	YAM
DUO	MAR	YET
EAR	MAW	Z OO
EEL	MID	
EGO	MOO	
ELM	MOP	
ERA	MUM	
EVA	NAT	
FEZ	NED	
FOG	NIG	
FOP	NOR	
FOR	NOW	
FRO	NUT	
FUN	OIL	

From T-10975

AIM	NUX
APT	OAK
ARM	ODD
BAG	OFF
COD	OHM
COO	ORB
DAW	PAL
DEB	PEG
DIF	PIN
EAT	PIX
EGG	RAT
END	RIM
EON	RUE
ERG	SAG
FAR	SAX
FAT	SIR
FEW	SIS
FIN	SKI
FLY	STY
FRY	SUE
GAS	THE
GOB	THY
GOW	TOM
GUM	TOY
GUY	TRY
HEX	VET
HUT	VEX
ION	VIM
IVY	WAS
JOY	WAX
LOG	WHO
LUX	YAK
MAL	YEA
MAX	ZIG
NAY	
NEW	
NIL	
NIT	
NOD	
NUL	

From T-10978

AMP	OBI
AMY	PIT
ANN	PLY
AXE	POT
BON	PRO
BOX	PUT
BUS	RAG
CAT	RAM
COP	REV
CRY	SAL
CUE	SET
DAY	SHE
DIP	SIC
DUN	SLY
ELF	SOX
EMO	TAP
EST	WED
FIT	WEE
GAG	WHY
GEO	WIN
GIG	YES
HAT	ZAG
HID	
HUM	
ICE	
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JAP	
JAW	
JOE	
JUT	
KED	
KEN	
LAX	
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LIP	
LOP	
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MUG	
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From T-10977

ART
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APPENDIX B

ABSTRACT OF CORRECTIONS TO ECHO SOUNDINGS

Launch CS-183

<u>Date & Day</u>	<u>Ltr.</u>	<u>Recorder No.</u>	<u>Fath. Depth (ft.)</u>	<u>Correction (ft.)</u>
4/24/61	a	EDO 255C #15	0.0 to 19.0	0.0
4/25/61	b	"	19.1 to 22.0	+0.2
4/26/61	c	"	22.1 to 32.0	+0.4
			32.1 to 35.0	+0.6
			35.1 to 50.0 & Deeper	+0.8
4/27/61	d	"	0.0 to 31.0	0.0
5/1/61	e	"	31.1 to 35.0	+0.2
5/2/61	f	"	35.1 to 39.0	+0.4
			39.1 to 50.0 & Deeper	+0.6
5/3/61	g	"	0.0 to 19.0	0.0
5/9/61	h	"	19.1 to 22.0	+0.2
			22.1 to 32.0	+0.4
			32.1 to 35.0	+0.6
			35.1 to 50.0 & Deeper	+0.8
5/10/61	j	"	6.0 to 12.0	0.0
5/11/61	k	"	12.1 to 27.0	+0.2
5/16/61	l	"	27.1 to 31.0	+0.4
5/17/61	m	"	31.1 to 34.0	+0.6
5/26/61	n	"	34.1 to Deeper	+0.8

Skiff No. 2

4/28/61	a	808j #154	All depths	0.0
5/4/61	b	"	"	0.0
5/12/61	c	"	"	0.0
5/22/61	d	"	"	0.0
5/23/61	e	"	"	0.0
5/26/61	f	"	"	0.0
6/2/61	g	"	"	0.0
1/16/62	h	808j #113s	"	0.0

APPENDIX C

TIDAL NOTES

Gage Location	Lower Hall Landing, Tensaw River Lat. $30^{\circ} 49.2$ Long $87^{\circ} 54.9$
Gage Type	Portable Automatic
Plane of Reference	Mean low water corresponds to 2.0 feeton the tide staff
Corrections	No time correstions were applied to the results obtained from the gage in reducing soundings.
Time Reference	90th time meridian

GEOGRAPHIC NAMES
Survey No. H-8590

Name on Survey	<div style="display: flex; justify-content: space-around; font-size: small;"> On Chart No. 1266 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 </div>										
	A	B	C	D	E	F	G	H	K		
Big Briar Creek	x										1
Big Lizard Creek	x										2
Byrnes Lake	x										3
Chuckfee Bay	x									x	4
Gravine Island	x										5
Hurricane Bayou	x										6
McVoys Lake	x										7
Mobile River	x									x	8
Nepro Lake	x										9
Oak Bayou	x										10
Oak Leaf Bayou	x										11
Sand Bayou					x						12
Tensaw River	x									x	13
Alligator Bayou											14
Little Briar Creek											15
Irving's Lake											16
Ma. Islets											17
Mallard Fork											18
Raft River											19
Smith Bayou											20
											21
											22
											23
											24
											25
											26
											27

Geographic Names Section
 10 December 1962

RHC

TIDE NOTE FOR HYDROGRAPHIC SHEET

January 9, 1963

Nautical Chart Division: R. H. Carstens

Plane of reference approved in
7 volumes of sounding records for

HYDROGRAPHIC SHEET 859⁰

Locality Mobile Bay, Alabama

Chief of Party: J. R. Plaggmier (1961)
S. L. Hollis Jr. (1962)

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 feet.

Condition of records satisfactory except as noted below:

NOTE: Tide reducers for positions listed below have been revised in red and verified. (applied)

<u>VOL.</u>	<u>POS.</u>
7	1g to 46g

J. M. Simmons
Chief, Tides and Currents Branch

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. 8590...

Records accompanying survey: Smooth sheets ...1.;
 boat sheets ..1...; sounding vols. ..7...; wire drag vols.;
 Descriptive Reports ...1.; graphic recorder envelopes ...6.;
 special reports, etc.

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

Number of positions on sheet	.....	1092
Number of positions checked	.....	172
Number of positions revised	.....	7
Number of soundings revised (refers to depth only)	.....	10
Number of soundings erroneously spaced	.....	—
Number of signals erroneously plotted or transferred	.....	—
Topographic details	Time	8.0
Junctions	Time	10.0
Verification of soundings from graphic record	Time	45.0
Special adjustments	Time	8.0

(use of wrong tide reducer - 1/2" day)

Verification by *Harold Schantz*..... Total time 186 hrs Date 24 June '71

Reviewed by *Robert W. Dekazarian*..... Time 60 hrs Date June 29, 1973
1250. Carstens 07 8/29/73

OFFICE OF MARINE SURVEYS AND MAPS

MARINE CHART DIVISION

HYDROGRAPHIC SURVEY REVIEW

REGISTRY NO. H-8590

FIELD NO. ECFP-10-8-61

Alabama, Tensaw River, Gravine Island to Negro Lake

SURVEYED: April 24, 1961, through January 16, 1962

SCALE: 1:10,000

PROJECT NO.: CS-410

SOUNDINGS: EDO 255C Recorder, 808;
Fathometer, Sounding Pole

CONTROL: Visual fixes on
shore signals

Chief of Party	J. R. Plaggmier
.....	S. L. Hollis, Jr.
Surveyed by	R. A. Lewis
Protracted by	G. F. Trefethen
Soundings plotted by	G. F. Trefethen
Verified and inked by	H. M. Schantz
Reviewed by	R. W. DerKazarian
.....	Date: June 29, 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 portions of the Tensaw and Mobile Rivers and tributaries which are ribboned with bayous and creeks running through the river delta. Predominant bottom characteristics of the area are mud and sand.

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-10973, T-10974, T-10975, T-10976, T-10977, and T-10978 of 1957-61. A minor shoreline revision in red by the hydrographer is covered in Part G of the Descriptive Report.

3. Hydrography

- A. Depths at crossings are in good agreement.
- B. The usual depth curves are adequately delineated except that most of the low-water-line was not developed because of its close proximity to shore. Anchorage along the Tensaw River for the National Defense Reserve Fleet of the Maritime Administration limited the development of the bottom in some areas.
- C. The development of the bottom configuration and the investigation of the least depths are considered adequate.

4. Condition of the Survey

The field work, sounding records, smooth plotting, and Descriptive Report are adequate and conform to the requirements of the Hydrographic Manual except for the limitations discussed in Paragraph 3.

5. Junctions

Adequate junctions were effected with H-8589 (1961), on the south, and H-8591 (1961) on the west.

6. Comparison with Prior Surveys

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

These prior surveys cover only the Mobile River portion of the present survey. Only minor shoaling has taken place. No other prior hydrographic survey of this Bureau fall within the limits of the present survey. The present survey is adequate to supersede the prior surveys within the common area.

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

A. Hydrography

Most of the charted hydrography originates with the partial application of the boatsheet (Bp 62038) of the present survey. Hydrography was also charted from U.S. Corps of Engineers surveys Bp 44854, 44855, 44856, of 1945, Bp 44846, 44847, of 1946, and Bp 44857 of 1948. Only minor differences were noted between present depths and charted depths.

Attention is directed to the sunken wrecks charted in the vicinity of lat. $30^{\circ}49'$, long. $87^{\circ}58'$ which are erroneously symbolized on the chart for these are ships at anchor. Originating with U.S. Corps of Engineers survey Bp 44846 of 1946 these ships are part of the Fleet Reserve. Subsequent to their charting the ships were moved to the Tensaw River as shown on the present survey.

The present survey is adequate to supersede the charted hydrography in 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, except that the present survey plot of the range in lat. $30^{\circ}48.2'$, long. $87^{\circ}54.95$ does not provide proper alignment through the dredged cut marked by buoys Nos. 6, 8, and 10. The former channel has narrowed appreciably because of the southerly shifting of the shoal from the north which now obstructs passage along the range. The 3-foot sounding reported in CL 1195 (71) in this vicinity may have been obtained on the adjacent shoal and not in the cut.


8. Compliance with Project Instructions

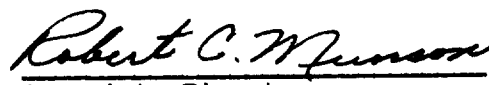
This survey adequately complies with the Project Instructions.

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

H-8590

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 except for items discussed in Paragraph 3. The bottom has basically remained unchanged since the prior surveys.

Position index - lat. 304, long. 0880
Bottom change - 3
Use index - 2
Resurvey cycle - 50 yrs.

Position index - lat. 305, long. 0880
Bottom change - 3
Use index - 2
Resurvey cycle - 50 yrs.

88°00'

55'

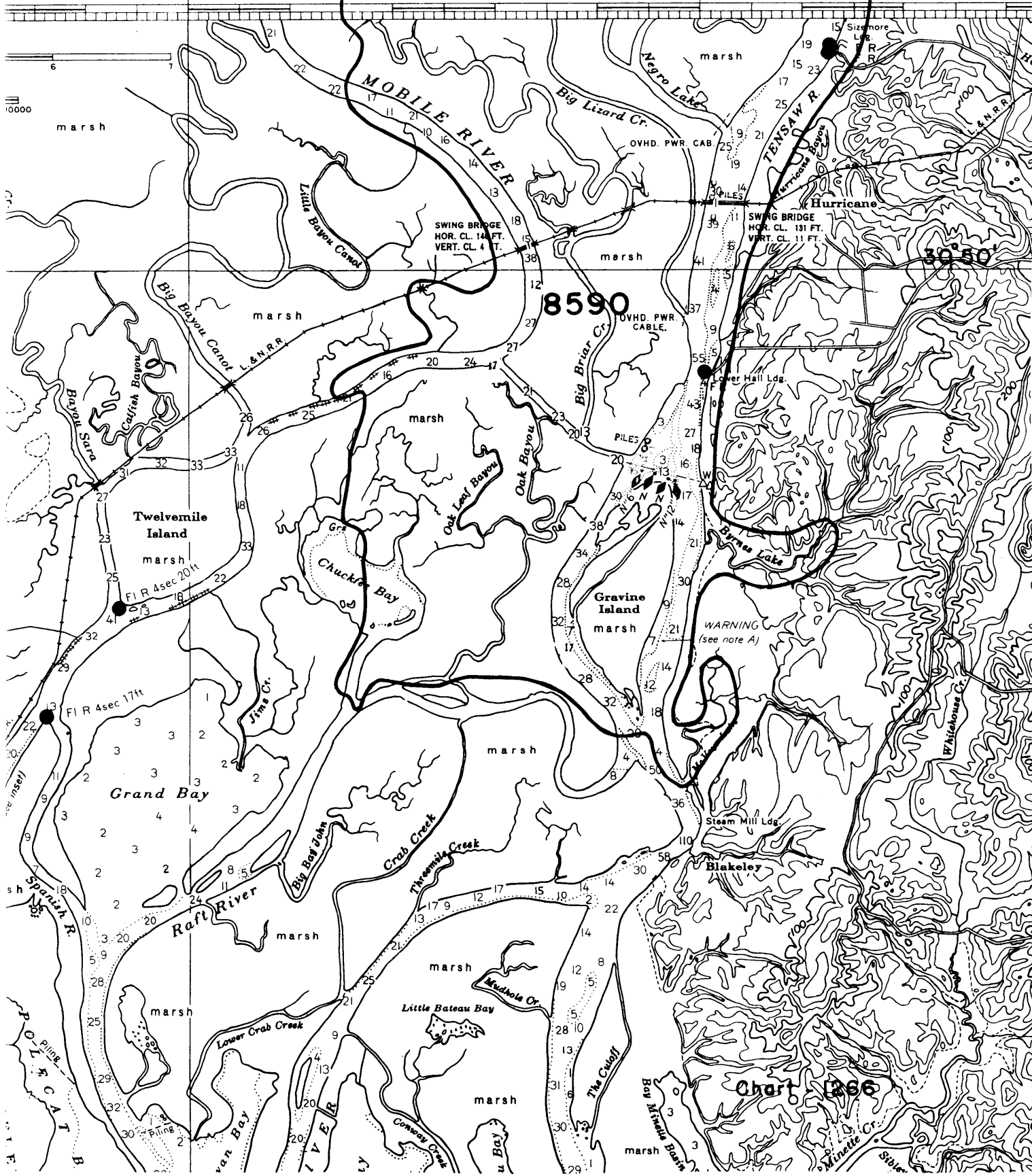


Chart 266

NAUTICAL CHARTS BRANCH

SURVEY NO. H-8590

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
2/16/63	1266	<i>John P. Wein</i>	^{<i>Part Applied</i>} Before After Verification and Review
5/23/90	11376	<i>L. Aikman</i>	Before After Verification and Review <i>fully Applied</i>
			Before After Verification and Review
			Before After Verification and Review
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			Before After Verification and Review

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.