8022

Diag. Cht. No. 1261-2

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. SO-05252 *Office No.* H-8022

LOCALITY

State Florida

General locality St. Marks River

Locality St. Marks Lighthouse to Port Leon

19~~4~~52

CHIEF OF PARTY

Riley J. Sipe

LIBRARY & ARCHIVES

DATE April 29, 1954

B-1870-1 (1)

8022

Form 537
(Ed. June 1946)

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-8022

Field No. So-05252

State FLORIDA

General locality ST. MARKS RIVER

Locality ST. MARKS LIGHTHOUSE TO PORT LEON

Scale 1:5,000 Date of survey 2 Oct. to 8 Dec. 1952

Instructions dated 17 June 1952

Vessel SOSBEE

Chief of party RILEY J. SIPE

Surveyed by SHIP'S OFFICERS

Soundings taken by ~~echometer~~, graphic recorder, ~~hand lead, wire~~ POLE

Fathograms scaled by SHIP'S PERSONNEL

Fathograms checked by SHIP'S PERSONNEL

Protracted by MARY KEYTON

Soundings penciled by MARY KEYTON

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

REMARKS: This survey was smooth plotted in the Hydrographic Section of the Norfolk Processing Office.

U. S. GOVERNMENT PRINTING OFFICE 777032

DESCRIPTIVE REPORT

TO ACCOMPANY

Hydrographic Survey No. H-8022 (Field No. SO-05252)

St. Marks River, Florida - St. Marks Light to Port Leon

Scale 1:5,000 2 October to 8 December 1952

U.S.C.& G.S.S. SOSBEE Riley J. Sipe, Commanding

A. PROJECT:

This survey is part of Project CS-351 and was done under Instructions dated 17 June 1952.

B. SURVEY LIMITS AND DATES:

The survey covers the lower part of St. Marks River from Latitude 30° 04.0' (about one mile south of St. Marks Light) to Latitude 30° 07.8' in the vicinity of Port Leon. Included are parts of East River, Four Mile Creek, Big West Bayou and Register Bayou.

Junction was made with survey H-8020 (Field No. SO-1352) on the south and H-8021 (Field No. SO-05152) on the northern end.

Field work was begun on 2 October and completed on 8 December 1952.

C. VESSELS AND EQUIPMENT:

Skiff No. 735, a 25-foot wooden skiff driven by two ten-horse power outboard motors, was used in doing all the hydrography on this survey. This boat has a maximum speed of about 5 knots and a turning radius of about 20 meters.

A portable depth recorder, model 808J, calibrated to a velocity of sound in water of 820 fathoms per second, was used in obtaining depth of water wherever possible. In shoal areas where the depth was about 3 feet or less, and on the tops of numerous oyster bars, a sounding pole graduated in feet was used.

D. TIDE AND CURRENT STATIONS:

Portable automatic tide gages were maintained at St. Marks Lighthouse and at the village of St. Marks during the period of this survey. Tide reducers obtained from the gage at the lighthouse were used in the lower part of the river as far up as Four Mile Point. Above this, the reducers were taken from the gage at St. Marks. Time difference between these two gages is approximately 50 minutes, so for applying tide reducers the river was divided as follows:

D. TIDE AND CURRENT STATIONS: CON'T.

For the lower part from the southern limit of this sheet to the natural division formed by the long oyster bars which constrict the channel in the vicinity of daybeacon 12, use lighthouse tides uncorrected.

For the section north of these bars up to another natural division running along a series of bars from the eastern bank at Lat. 30° 06.2' to the western bank at Lat. 30° 05.75' the tides used were lighthouse + 10 minutes.

From this line northward to a line extending across the stream southwesterly from Four Mile Point, reducers were based on lighthouse tides + 20 minutes.

For the remainder of the river on this sheet, that is, from Four Mile Point to the limit just upstream from Port Leon, the tides used were St. Marks - 20 minutes.

These sections of the river were determined by a study of the general character of the channel and bars. The dividing lines were placed where shoals made natural barriers. Most of these shoals could not be crossed by the sounding skiff, a fact which made the entering of the tide reducers less complicated than it would have been if the sounding lines had been run back and forth across the dividing line in different tide areas.

A current station was occupied in the channel off Four Mile Point, between lights No. 28 and No. 30, Lat. 30° 06.73' Long. 84° 12.23'. Observations were made with a Price current meter and current pole and were continuous for 100 hours.

E. SMOOTH SHEET:

Not within the scope of this report.

F. CONTROL STATIONS:

Triangulation stations are all on the North American 1927 datum and are listed below:

1. Third Order, described stations:

ST. MARKS LIGHTHOUSE 1933 - re-located 1952.
MUD U.S.E. - 1952.
EAST RIVER U.S.E. - 1952.
SAW U.S.E. - 1952.
MAC U.S.E. - 1952.
LEON TOWER 1935 - re-located 1952.
HUNT 1935 - Geographic position from page 666, computation G-5045, "Apalachicola to St. Marks".
HUNT U.S.E. - 1952 (⊙ USE)
REED U.S.E. - 1952
IND 1935 - re-located 1952.
SPRA 1935 - re-located 1952.
FOUR MILE 1907 - Geographic position from page 664, computation G-5045, "Apalachicola to St. Marks".

F. CONTROL STATIONS: CON'T.

2. Fixed Aids to Navigation:

CHANNEL BEACON 1935 - re-located 1952.
(ST. MARKS RIVER LIGHT 1) (⊙ CON)
ST MARKS RIVER LIGHT 4 1952 (" NOR)
ST MARKS RIVER LIGHT 8 1952 (" DAY)
ST MARKS RIVER LIGHT 12 1952(" IDA)
ST MARKS RIVER DAYBEACON 13 (" EON)
ST MARKS RIVER DAYBEACON 14 (" ORB)
ST MARKS RIVER DAYBEACON 16 (" HOD)
ST MARKS RIVER LIGHT 18 (" ZAG)
ST MARKS RIVER LIGHT 23 (" RUM)
ST MARKS RIVER LIGHT 28 (" GAL)
ST MARKS RIVER LIGHT 30 (" FAR)
ST MARKS RIVER LIGHT 32 (" JOE)
ST MARKS RIVER DAYBEACON 33 (" NIL)
ST MARKS RIVER LIGHT 35 (" PAD)

3. Undescribed stations, located by triangulation methods for hydrographic signals only:

PEG	HEM
OLD	KID
ZOO	LAY
NIX	MUG
YAK	EVA
OAK	ACE
WAG	BAG
PUP	COO
RAM	QUO (not used)

The stations listed below were located by radial plot methods on photogrammetric sheet R.S. 448 of Ph 97(52):

VEX (No. 807)	EAR (No. 836)(not used)
TUB (No. 808)	FLY (No. 839)(not used)
SAM (No. 809)	
RUE (No. 810)	
PIE (No. 825)	
DIM (No. 833)	
HEX (No. 841)	
WHY (No. 842)	
SOL (No. 843)	

Stations listed below were located by sextant angles measured to objects located by triangulation. They are shown on the boat sheet by blue circles:

COW
GIN
FOX (not used)

G. SHORELINE AND TOPOGRAPHY:

From shoreline manuscript R.S. 448 of Ph 97(52), by Baltimore Photogrammetric Office from nine-lens photographs taken in February 1952.

H. SOUNDINGS:

In depths of more than three feet, soundings were obtained by use of a portable fathometer, type 808. In shoaler areas a wooden sounding pole graduated in feet was used.

I. CONTROL OF HYDROGRAPHY:

Hydrography was controlled in position by three-point sextant fixes on objects located as listed under Item F.

J. ADEQUACY OF SURVEY:

This survey is complete and adequate to supersede prior surveys for charting.

K. CROSSLINES:

Crosslines, not counting any channel lines comprise nine per cent of the total mileage. Discrepancies are not in excess of one foot, which is the unit used in entering soundings on the boat sheet.

L. COMPARISON WITH PRIOR SURVEYS:

Comparison was made with surveys H-1330a and H-5884. Discrepancies with the older survey were apparent in the areas in and near the channel, especially the spoil islands at Lat. 30° 05.6' and Lat. 30° 06.0' and several shoals along the edges of the dredged channel. (PS Review)

In addition to these artificial changes, other discrepancies were noted as follows:

a. The oyster bar extending from shore just north of Four Mile Point to the vicinity of Light 30, at above Lat. 30° 06.8' is shown on the prior survey only as a small detached shoal with a sounding of zero.

b. A shoal with a least depth of 3 feet about 50 meters south of the pier at Port Leon.

c. Several oyster bars near the entrance to East River.

Survey H-5884 appears to have been only partly completed. However, it agrees with the present work in the areas covered.

M. COMPARISON WITH CHART 1261:

This survey is in agreement with chart 1261, print date 4/28/52.
(PS Review)

N. DANGERS AND SHOALS:

Reference is made to Item L regarding new shoals found. Due to the fact that this is the only complete survey made since the improvement of the channel, numerous new dangers and shoals were found where dredging spoil had been deposited. (See P 5 and 6 Review)

O. COAST PILOT INFORMATION:

See page 246 of United States Coast Pilot, Gulf Coast, 1949.

The channel leading in from the vicinity of Long Bar Buoy 6 is well marked by lights, daybeacons and buoys. In navigating the part between Light 4 and Light 12, care should be taken to pass within 50 yards of Light 8 in order to clear the unmarked tip of a shoal extending to the channel at latitude 30° 04.75'. Also the mariner's attention should be called to the fact that, at the bend in the stream at Port Leon, the deep water cuts across near the west bank instead of following the outside of the curve where the best water ordinarily would be expected.

There are several places where small craft can anchor safely, but caution must be used in leaving the channel, especially at high water when the numerous oyster bars may not be visible. The ship SOSBEE anchored in two places during the progress of this work;

Fwist in Spanish Hole in 15 feet with St. Marks River Light 1 distant about 300 yards, bearing 230°, the best anchorage for larger vessels.

Secondly between the reefs about 300 yards 120° true from St. Marks River Light 8 in 16 feet. This latter spot is well protected, but has considerable current through it.

A current station was occupied in the channel off Four Mile Point. As might be expected, the flow of water was along the axis of the channel. At this station it was found that the top two feet of the water might be moving at a fairly rapid speed while the meter showed little or no current a few feet lower down. Farther downstream currents were noticed to be quite variable both in direction and speed where the numerous shoals and bars restrict the flow of water. A northerly wind causes a decided lowering of the water level, with a corresponding effect on the tidal currents.

P. AIDS TO NAVIGATION:

All fixed aids to navigation were located by triangulation methods and are reported on Form 567.

Floating aids to navigation were located as follows:

St. Marks River Buoy 2:

Lat. 30° 04.30' Long. 84° 11.38' in 6 feet; located on 22 October 1952, position 1d.

P. AIDS TO NAVIGATION: CON'T.

St. Marks River Buoy 3:

Lat. 30° 05.48' Long. 84° 11.33' in 9 feet; located on 22 October 1952, position 3d.

St. Marks River Buoy 5:

Lat. 30° 04.64' Long. 84° 11.28' in 9 feet; located on 14 November 1952, position 2h.

St. Marks River Buoy 6:

Lat. 30° 04.68' Long. 84° 11.26' in 16 feet; located on 14 November 1952, position 1h.

St. Marks River Buoy 9:

Lat. 30° 04.91' Long. 84° 11.49' in 11 feet; located on 14 November 1952, position 3h.

St. Marks River Buoy 11:

Lat. 30° 05.04' Long. 84° 11.65' in 10 feet; located on 14 November 1952, position 4h.

St. Marks River Buoy 15:

Lat. 30° 05.62' Long. 84° 11.69' in 6 feet; located on 25 November 1952, position 302p.

St. Marks River Buoy 17:

Lat. 30° 05.84' Long. 84° 11.72' in 7 feet; located on 25 November 1952, position 303p.

St. Marks River Buoy 19:

Lat. 30° 06.00' Long. 84° 11.83' in 9 feet; located on 25 November 1952, position 304p.

St. Marks River Buoy 21:

Lat. 30° 06.11' Long. 84° 11.89' in 9 feet; located on 25 November 1952, position 305p.

St. Marks River Buoy 24:

Lat. 30° 06.34' Long. 84° 12.03' in 12 feet; located on 25 November 1952, position 306p.

St. Marks River Buoy 26:

Lat. 30° 06.49' Long. 84° 12.07' in 7 feet; located on 25 November 1952, position 307p.

P. AIDS TO NAVIGATION: CON'T.

St. Marks River Buoy 32A:

Lat. 30° 07.13' Long. 84° 12.07' in 8 feet; located on 25 November 1952, position 308p.

St. Marks River Buoy 37:

Lat. 30° 07.01' Long. 84° 12.00' in 7 feet; located on 25 November 1952, position 4p.

St. Marks River Buoy 38:

Lat. 30° 07.05' Long. 84° 11.97' in 9 feet; located on 25 November 1952, position 3p.

St. Marks River Buoy 39:

Lat. 30° 07.75' Long. 84° 12.12' in 10 feet; located on 25 November 1952, position 2p.

St. Marks River Buoy 40:

Lat. 30° 07.92' Long. 84° 12.25' in 10 feet; located on 25 November 1952, position 1p.

The following changes were noticed from the 1952 Light List, Intracoastal Waterway:

St. Marks River Light 11 has been replaced with a lighted buoy, flashing green. (CP 6B-1 Review)

St. Marks River Daybeacon 19 has been replaced with a black can buoy.

Q. LANDMARKS FOR CHARTS:

Landmarks for charts for the whole St. Marks River area are listed on Form 567.

Besides the many aids to navigation, the only prominent landmark within the limits of this survey is Leon Tower, a steel observation tower of the U. S. Biological Survey.

R. GEOGRAPHIC NAMES: Noted and recorded 5-12-54. L.H.

Charted names were verified by consultation with local residents.

The names shown on map manuscript RS 448 seemed to be all right except for the following recommended changes:

The cove about 1 mile east of St. Marks Lighthouse should be Little Sand Cove. (Off limits of H-8022)

R. GEOGRAPHIC NAMES: CON'T.

The cove about 2½ miles east of St. Marks Lighthouse should be Big Sand Cove. (off limits of H-8022)

The stream entering East River northwest of Pelican Point should be Big Boggy Creek. (See Geographic Name Sheet)

The next tibutary upstream on East River, at Lat. 30° 06.3' is called Little Boggy Creek. (Off limits of H-8022)

The stream entering St. Marks River at Lat. 30° 05.75' Long. 84° 11.3' is called Rock Creek.

The broad point at Lat. 30° 07.5', Long. 84° 12.1' is shown as Three Mile Point on some maps. However, local usage indicates that Allround Point should be the charted name. (See Geographic Name Sheet)

S. SILTED AREAS:

NONE FOUND.

T. BY-PRODUCT INFORMATION:

A special report on the comparison of positions of signals by photogrammetric methods and by theodolite cuts is being submitted.

U. BOAT SHEET:

The boat sheet was furnished by the Washington Office. It was received with the projection ruled in ink, the triangulation stations plotted in pencil, and bearing only the note, "SO-05252 1:5,000 polyconic ruled 3/25/52 J.A." When preliminary work (plotting of signals and checking plotting of triangulation stations) was begun in September, it was found that the paper had expanded in an east and west direction, the amount of 16 meters in one minute of longitude. At the time, the discrepancy was thought to be an error in laying out the projection, so corrected projection lines were drawn in red ink. About a month later, it was found that the original black projection lines were correctly spaced, the sheet having reverted to its orignal size. The shoreline and signals were re-plotted according to the orignal projection.

V. OVERLAYS:

The transparent overlays made from the map manuscript on a scale of 1:5,000 for the purpose of transferring photo-hydro stations to the boat sheet could not be used. The projection lines were not straight and could not be matched, even in one quadrangle, to get satisfactory accurracy. As a result, the photo-hydro stations were plotted on the boat sheet by scaling dm's and dp's directly from the map manuscript. A Sylar-Lockerbie scale was used for this scaling and plotting. Many of these photo-hydro stations were later located by triangulation. A comparison of the results is given in the special report on this subject.

W. OYSTER BARS:

One outstanding feature of this locality is the various oyster bars which obstruct the waters of the river, most of them running across the axis of the channel. The higher ones could not be crossed by the sounding skiff except on unusually high waters caused by strong southerly breezes. Thus the sounding lines had to be broken at all the larger bars. Numerous notes as to height of bar were entered in the sounding record. Also many detached positions to locate the ends of these bars, especially those nearest the channel, were taken at low water. The more important of these bars were transferred from the photographs to the boat sheet by means of a Solzman projector, and are outlined in pencil.

(A 7c Reviews)

Z. TABULATION OF APPLICABLE DATA:

Accompaning this report are:

1. Statistics Sheet.
2. Tide Note.
3. Approval Sheet.
4. List of Signals.

Submitted by,

Arthur L. Wardwell

Arthur L. Wardwell
Commander, USC&GS

STATISTICS SHEET

For Hydrographic Survey H-8022 (Field No. SO-05252)

Project CS-351 Scale 1:5,000

U. S. C. & G. S. S. SOSBEE Riley J. Sipe, Comdg.

Day Letter	Volume No.	Date 1952	No. of Positions	Statute Miles	No. of Pole Soundings
a	1	2 Oct.	105	12.4	7
b	1	7 Oct.	26	-	26
c	1	16 Oct.	1	-	1
d	1	22 Oct.	39	-	35
e	1	30 Oct.	107	11.4	40
f	2	7 Nov.	97	9.7	138
g	2	13 Nov.	163	17.1	284
h	2 & 3	14 Nov.	296	27.6	440
j	3	17 Nov.	95	7.4	213
k	3 & 4	19 Nov.	131	8.2	140
l	4	20 Nov.	145	15.6	165
m	4 & 5	21 Nov.	260	19.5	245
n	5 & 6	24 Nov.	290	21.6	539
p	6	25 Nov.	308	23.2	212
q	7	26 Nov.	176	15.4	246
r	7	1 Dec.	114	8.0	286
s	7 & 8	2 Dec.	311	22.1	206
t	8 & 9	3 Dec.	337	23.9	261
u	9	6 Dec.	72	3.7	79
v	9	8 Dec.	45	1.8	1
	Totals		3118	248.6	3564

Area = 3.5 square statute miles.

TIDE NOTE

Portable automatic tide gages were in operation during the period of this survey at the locations listed below:

1. At the boat basin just north of St. Marks Lighthouse, Lat. 30° 04.75' Long. 84° 10.70'. Zero of the tide staff was determined by levels run to previously established bench marks to be 2.0 feet below mean low water plane of reference.
2. At. St. Marks, Lat. 30° ~~07.7'~~ 09.2 Long. 84° ~~11.7'~~ 12.2. Zero of tide staff was determined by levels run to one previously established bench mark to be 2.1 feet below the mean low water plane of reference. Two new bench marks were established here.

Tides observed at the lighthouse gage were used in reducing the soundings as far upstream as Four Mile Point. From the southern limit of the sheet to the long oyster bars nearly meeting at daybeacon 12 no correction was applied.

A correction of + 10 minutes to these tides was applied in the area upstream from these bars as far as another natural division where a series of bars run diagonally across the stream from Lat. 30° 06.2' on the eastern bank to Lat. 30° 05.75' on the western bank.

A correction of + 20 minutes to these tides (lighthouse) was applied in the next section upstream extending as far as Four Mile Point.

Tides from the St. Marks gage, with a correction of - 20 minutes, were used from Four Mile Point to the upstream limit of this survey.

APPROVAL SHEET

The survey of the area covered by SO-05252(H-8022) is adequate for charting purposes. The sounding records and boat sheet have been inspected and are approved this date. Additional work is not necessary.

3 Feb. 1953

Riley J. Sipe
Chief of Party, C&GS

LIST OF SIGNALS
H-8022

TRIANGULATION STATIONS

CON	ST. MARKS RIVER, LIGHT 1, 1952
DAY	ST. MARKS RIVER, LIGHT 8, 1952
EAST	EAST RIVER (U.S.E.), 1952
EON	ST. MARKS RIVER, DAYBEACON 13, 1952
FAR	ST. MARKS RIVER, LIGHT 30, 1952
GAL	ST. MARKS RIVER, LIGHT 28, 1952
HOD	ST. MARKS RIVER, DAYBEACON 16, 1952
HUN	HUNT, 1935-52
IDA	ST. MARKS RIVER, DAYBEACON 12, 1952
IND	IND, 1935-52
JOE	ST. MARKS RIVER, LIGHT 32, 1952
LEO	LEON TOWER, 1935-52
MAC	MAC (U.S.E.), 1952
MAR	ST. MARKS LIGHTHOUSE, 1933-52
MILE	FOUR MILE, 1907-52
MUD	MUD (U.S.E.), 1952
NIL	ST. MARKS RIVER, DAYBEACON, 33, 1952
NOR	ST. MARKS RIVER, LIGHT 4, 1952
ORB	ST. MARKS RIVER, DAYBEACON 14, 1952
PAD	ST. MARKS RIVER, LIGHT 35, 1952
REED	REED (U.S.E.), 1952
RUM	ST. MARKS RIVER, LIGHT 23, 1952
SAW	SAW (U.S.E.), 1952
SPRA	SPRA, 1935-52
ZAG	ST. MARKS RIVER, LIGHT 18, 1952

TOPOGRAPHIC STATIONS (Located by fourth order triangulation methods)

Ace	Bag	Coo	Eva	Hem	Kid	Lay	Mug	Nix	Oak	Old
Peg	Pup	Ram	Rot	Wag	Yak	Zoo				

(Source, Compilation RS-448)

Dim	Hex	Pic	Rue	Sam	Sol	Tub	Use	Vex	Why

HYDROGRAPHIC STATIONS

Cow	Vol. 3, Pg. 50
Gin	Vol. 1, Pg. 36

ADDENDUM
To Accompany

HYDROGRAPHIC SURVEY H-8022 (Field No. So-05252)

GENERAL

This appears to be an excellent basic survey and no unusual difficulties were experienced, other than the usual problems of obtaining adequate bottom delineation in an extremely irregular bottom.

Respectfully submitted,

Hugh L. Proffitt
Cartographer.

Norfolk, Va.
26 April 1954

GEOGRAPHIC NAMES

Survey No. H-8022

Name on Survey	On Chart No. A	On previous survey No. B	On U. S. quadrangle Maps C	From local information D	On local Maps E	P. O. Guide or Map F	Rand McNally Atlas G	U. S. Light List H	K	
Florida									BGN	1
Apalachee Bay										2
St. Marks River										3
East River										4
Pelican Point										5
Boggy Creek		(use pending BGN decision)								6
Rock Creek										7
Sprague Island										8
Register Bayou										9
Indian Pass										10
Indian Point										11
Four Mile Creek										12
Four Mile Point									BGN	13
Hunting Bayou		(use pending BGN decision)								14
Threemile Point		("		"	"	)				15
Port Leon										16
										17
Folly Bar					Names approved 5-12-54					18
Sprague Pt. Bar					L. Heck					19
Long Bar										20
Spray Bar										21
Coon Bottom Bar										22
Devils Elbow	Not used	Cancelled 6/21/60 Additional names approved 11-2-55. L. Heck								23
										24
										25
										26
										27

M 234

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. H-8022..

Records accompanying survey:

Boat sheets ..1..; sounding vols. .9....; wire drag vols. .....;

bomb vols. .....; graphic recorder rolls 8 Env.;

special reports, etc. 1 Smooth Sheet; 1 Descriptive Report;.....

.....

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

Number of positions on sheet		3118
Number of positions checked		217
Number of positions revised		15
Number of soundings revised (refers to depth only)		20
Number of soundings erroneously spaced		0
Number of signals erroneously plotted or transferred		0
Topographic details	Time	30
Junctions	Time	6
Verification of soundings from graphic record	Time	12

Verification by O. Svendsen .....Total time 120 hrs Date 5 Oct. 1955

Reviewed by Alan Jeskund ..... Time 51.. Date 28 Oct. 1955

M-2232-1

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8022 FIELD NO. SO-05252

Florida, St. Marks River, St. Marks Lighthouse to Port Leon

Project No. CS-351

Surveyed - Oct., Dec., 1952 Scale 1:5,000

Soundings: Control:

808 Fathometer
Pole

Sextant fixes on shore signals

Chief of Party - R. J. Sipe
Surveyed by - R. J. Sipe and A. L. Wardwell
Protracted by - M. Keyton
Soundings plotted by - M. Keyton
Verified and inked by - O. Svendsen
Reviewed by - I. M. Zeskind 10-28-55
Inspected by - R. H. Carstens

1. Shoreline and Control

The shoreline originates with unreviewed air-photographic revision survey RS-448, Ph-97 (1952).

The source of the control is described in the Descriptive Report.

2. Sounding Line Crossings

Depths at crossings are in good agreement.

3. Depth Curves and Bottom Configuration

The usual depth curves were adequately delineated. The 3-ft. curve was drawn to better delineate the bottom configuration.

Except in several areas where flats are found, the bottom is very irregular. Sand bars, oyster bars, spoil areas, shoals and deeps contribute to the bottom irregularity. In St. Marks River within the area of the present survey a natural channel which has been dredged in several places, has a controlling depth of 9 ft. The controlling depth of the natural channel leading into East River is 5 ft.

4. Junctions with Contemporary Surveys

Adequate junctions were effected with H-8021 (1952) on the north and H-8020 (1952) on the south.

5. Comparison with Prior Surveys

Misc. 9, (1852), 1:20,000
H-305 (1852), 1:20,000
H-540 (1856), 1:20,000
H-541 (1856), 1:10,000
H-1330 (1875), 1:10,000
H-5884 (1934-35), 1:5,000 (incomplete

A comparison between the prior and present surveys reveals, in general, minor differences of 1-2 ft. in depths, except in those portions of St. Marks River which have been dredged, and in the vicinity of the shell bars near the entrance to East River. As a result of dredging operations depth changes of as much as 9 ft. are noted, as for example, in lat. 30°06.51', long. 84°12.12', where a prior depth of 3 ft. falls in present depths of 10-12 ft. Several spoil areas are also noted near the dredged portions of the channel. As a result of changes in location, size and shape of some of the shell bars, depth changes have occurred, as for example, in the vicinity of lat. 30°04.24', long. 84°11.38', where the bar has shifted southeastward as much as 100 meters and a prior depth of 3 ft. has eroded to present depths of 8-10 ft. Changes in shoreline configuration for the most part are attributed to differences in the interpretation of high water line in a marshy area. However, some changes in shoreline are attributed to either erosion or accretion, as for example, in the vicinity of lat. 30°07.12', long. 84°12.5', where the shoreline has accreted as much as 80 meters.

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

6. Comparison with Chart 484 (latest print date 5-31-54)

A. Hydrography

The charted hydrography originates with advance information of the present survey. Only minor differences between the charted and present survey depths after verification and review are noted. Several of the charted bars differ slightly in size and shape with those features shown on the smooth sheet of the present survey. The mid-channel shoal located on the smooth sheet in lat. 30°07.13', long. 84°12.08' has not been charted.

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

B. Aids to Navigation

The survey positions of the aids to navigation are in substantial agreement with the charted positions and adequately mark the features intended, except as follows:

(1) Lighted Buoy No. 11, located on the present survey in lat. 30°05.04', long. 84°11.65', is charted as a fixed light. The buoy was replaced by a fixed light subsequent to the present survey, (HON to M 32, 1954).

(2) Black Can Buoy No. 9, charted in lat. 30°04.88', long. 84°11.41', is located on the present survey near a shoal approximately 130 meters northwestward of its charted position. The buoy in its survey position better delineates the western side of the channel.

(3) Red Nun Buoy No. 6, charted in lat. 30°04.79', long. 84°11.31', is located on the present survey approximately 218 meters south southeast of its charted position. The charted position more adequately marks the charted feature.

7. Condition of Survey

(a) The sounding records and Descriptive Report are complete and comprehensive.

(b) The smooth plotting was accurately done, except as noted in paragraph (c) below.

(c) Numerous oyster bars appearing on RS-448 (1952) from T-5805 (1940) were not transferred to the boat sheet of the present survey for disposition by the field party. Many of these bars were not mentioned in the sounding records and office disposition of these bars by the verifier was necessary.

8. Compliance with Project Instructions

The present survey adequately complies with the Project Instructions.

9. Additional Field Work Recommended

This survey is considered basic and no additional field work is recommended. ✓

Examined and Approved:

H. R. Edmonston
Chief, Nautical Chart Branch

E. R. McCarthy
Chief, Chart Division

J. C. Bull
Chief, Hydrography Branch

Earl O. Heaton
Chief, Division of Coastal Surveys

R#C

Form 712
DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
Rev. Apr. 1950

TIDE NOTE FOR HYDROGRAPHIC SHEET

Division of Coastal Surveys 19 May 1954

Division of Charts: R. H. Carstens

Plane of reference approved in
9 volumes of sounding records for

HYDROGRAPHIC SHEET 8022

Locality St. Marks River, Florida

Chief of Party: R. J. Sipe in 1952
Plane of reference is mean low water, reading
2.0 ft. on tide staff at St. Marks
5.2 ft. below B. M. 3 (1935)

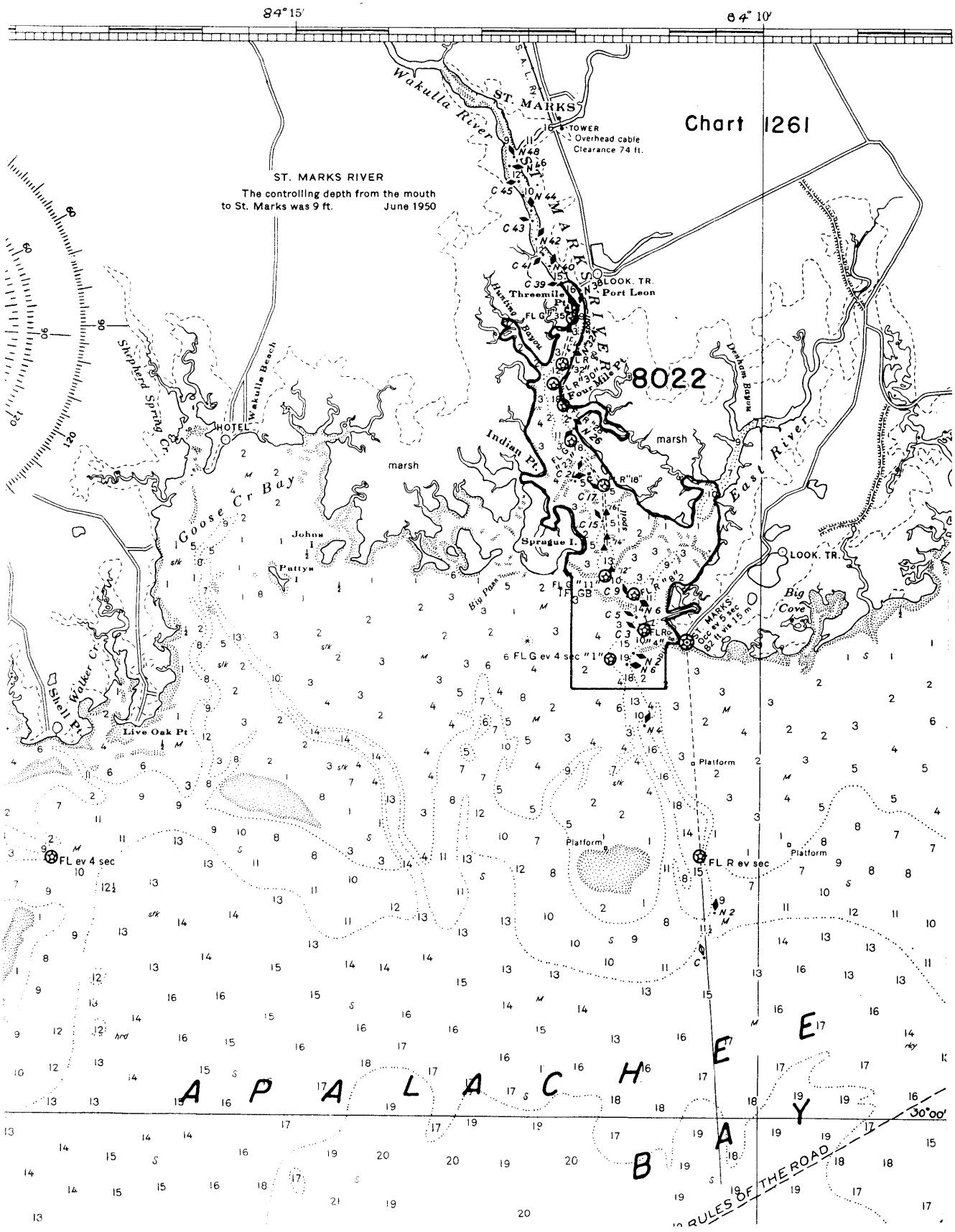
2.1 ft. on tide staff at St. Marks Lighthouse
2.7 ft. below B M 1 (1933)

Height of mean high water above plane of reference is 2.4 feet.

Condition of records satisfactory except as noted below:

E. C. McKay
Tides Branch
Chief, Division of Tides and Currents.

U. S. GOVERNMENT PRINTING OFFICE 877933


84°15'
84° 10'
Chart 1261
8022
ST. MARKS RIVER
The controlling depth from the mouth to St. Marks was 9 ft. June 1950
Wakulla River
ST. MARKS
TOWER
Overhead cable Clearance 74 ft.
ST. MARKS RIVER
LOOK. TR. Port Leon
Threemile Pt.
Fourmile Pt.
Hunting Bayou
Dunham Bayou
East River
Indian Pt.
marsh
HOTEL
Wakulla Beach
Shepherd Spring Cr.
Goose Cr Bay
Johns I.
Pattys I.
Sprague I.
Big Pass
Big Cove
LOOK. TR.
Walker Cr.
Shell Pt.
Live Oak Pt.
6 FL G ev 4 sec "1"
FL ev 4 sec
FL R ev sec
Platform
APALACHEE BAY
30°00'
RULES OF THE ROAD

NAUTICAL CHARTS BRANCH

SURVEY NO. H-8022

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
5May54	484	Forrest B Bell	Before ~~After~~ Verification and Review Revisions
11/1/56	1261	J P Walker	~~Before~~ After Verification and Review Examined —
			Consider as completely applied
6-16-60	484	R. K. Mc Spadden	Before ~~After~~ Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			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.