

6310

U. S. COAST & GEODETIC SURVEY  
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6310

Form 504  
Rev. April 1935  
DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

~~Topographic~~  
Hydrographic } Sheet No. 43

State Florida

LOCALITY

St. Johns River

Mosquito Grove to St. Francis

1938

CHIEF OF PARTY

F. L. Gallen

U. S. GOVERNMENT PRINTING OFFICE

6310

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO.

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.

Field No. 43

REGISTER NO. H 6310

State Florida

General locality St. Johns River

Locality ~~St. Francis~~ Mosquito Grove to St. Francis

Scale 1:5,000 Date of survey Feb., 19 38

Vessel Launch MIKAGE

Chief of Party L. D. Graham - F. L. Gallen

Surveyed by Raymond H. Carstens

Protracted by George E. Varnadoe

Soundings penciled by George E. Varnadoe

Soundings in ~~fathoms~~ feet

Plane of reference M.S.L.

Subdivision of wire dragged areas by \_\_\_\_\_

Inked by G.F. JORDAN

Verified by G.F. JORDAN

Instructions dated \_\_\_\_\_, 19 36

Remarks: \_\_\_\_\_

\_\_\_\_\_

## DESCRIPTIVE REPORT

To Accompany Hydrographic Sheet 43

INSTRUCTIONS - November 9, 1936

Project HI-212

### LIMITS

The sheet includes that part of the St. Johns River from Lat.  $29^{\circ} 04.5'$  ✓  
to St. Francis.

### SURVEY METHODS

Sounding lines were run following the general trend of the channel as defined by the shorelines and the line of tuckahoes, where tuckahoes grew offshore. Crosslines and lines run in the small lake on this sheet were run on ranges. Positions on the sounding lines were obtained by sextant fixes or spotted from topographic features. Soundings were obtained with a leadline. Signals in green were spotted from the air photographs. Signals in blue were cut in from the signals shown in green using methods described in the special report by Carl I. Aslakson, "Methods Employed in Making Surveys of Mangrove Fringed Rivers and Creeks". ✓

### DANGERS

No dangers to navigation are known to exist on this sheet. ✓

### CHANNELS

Only one main channel runs down the river. Where shoals extend offshore, a line of tuckahoes mark the edge of the shoals. The limiting depth is 14 feet, found in ~~Lat.  $29^{\circ} 02.60'$ , Long.  $81^{\circ} 25.42'$~~  and Lat.  $29^{\circ} 04.38'$ , Long.  $81^{\circ} 27.50'$ . ✓

### COMPARISON WITH PREVIOUS SURVEYS - Chart 509, Last print 35-7/11

The only previous survey available was that shown on chart 509. In most cases deeper water was found than had previously been charted. About 3 feet more water was found than shown by the first two soundings to the east of Mosquito Grove. At the first two bends upstream from Mosquito Grove about five fathoms of water was found rather than the 17 and 18 ft. as shown. By following the west bank about 15 feet can be carried past the area 0.92 mile upstream from Mosquito Grove instead of the 13 feet as shown on chart 509. By following the northeast bank about 15 feet can be carried through the section of the river about 0.5 mile downstream from St. Francis where a 9 ft. sounding is now shown. ✓

### GEOGRAPHIC NAMES

For new geographic names see the report submitted by the party under H. A. Paton covering the air photographic survey of this region. ✓

Approved and forwarded:

*F. L. Gallen*  
F. L. Gallen  
H. & G. Engineer  
Chief of Party

Submitted by,

*Raymond H. Carstens*  
Raymond H. Carstens  
Deck Officer, C. & G. S.

Notes on Sheet Field No. 43

Signal Cus was relocated by a cut from Win and a cut and distance from Ash, which intersect in a point. The angle at Cus between Win and Ash checks the hydro location, however, the distance from Pay to Cus checks the photo location of Cus. Signal Ice was relocated by cut and distance from Elm. See boat sheet. A traverse was run from Sis to Wag with a 6 meter closure. This error was adjusted.

S T A T I S T I C S

Date	Day Letter	Positions	Soundings	Statute Miles
Feb. 24	a	94	794	13.0
25	b	146	922	15.4
28	c	<u>38</u>	<u>200</u>	<u>2.6</u>
		278	1916	31.0

Smooth sheet Field No. 43 was plotted under the immediate supervision of the Chief of Party. The sheet and accompanying records have been inspected and are approved.

*F. L. Gallen*

F. L. Gallen  
H. & G. Engr.  
Chief of Party

## Verifier's Report on H-6310(1938)

1. Control and shoreline are from T-5683 and T-5684. There is no G.C.S. for this area. Minor corrections were made to the shoreline to agree with the above "T" sheets.
2. A satisfactory junction is made with H-6309(1938).  
H-6311(1938) joins this survey on the south. ✓
3. The sounding records and plotting comply with general instructions. Reference station was omitted, and not plotted on this sheet. Noted in review.
4. Remarks -  
None

Dec. 2, 1938

George F. Jordan

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. **H6310** .....

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

Number of positions on sheet	<i>.278.</i>
Number of positions checked	<i>....7.</i>
Number of positions revised	<i>....0.</i>
Number of soundings recorded	<i>.1916.</i>
Number of soundings revised	<i>....2.</i>
Number of signals erroneously plotted or transferred	<i>....0.</i>

Date: *Dec. 2, 1938*

Verification by *G. F. JORDAN*

Time: *19<sup>3</sup>/<sub>4</sub>*

Review by *J. A. M<sup>c</sup> Cormick Dec. 15, 1938*

Time: *4 hr.*



HYDROGRAPHIC SURVEY NO. H-6310

Smooth Sheet Yes

Boat Sheet Yes

Records; Sounding 2 Vols., Wire Drag      Vols., Bomb      Vols.

Descriptive Report Yes

Title Sheet Yes

List of Signals Vol.#1

Landmarks for Charts (Form 567) None

Statistics Yes

Approved by Chief of Party Yes

Recoverable Station Cards (Form 524) None

Special Chart for Lighthouse Service       
(Circular Nov.30, 1933)

Hydrography: Total Days 3 ; Last Date Feb. 28, 1938

Remarks

Remarks

Decisions

	Remarks	Decisions
1		U. S. G. B.
2		
3		U. S. G. B.
4		
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GEOGRAPHIC NAMES

Survey No. **H6310**

Name on Survey	Sources										
	A	B	C	D	E	F	G	H	K	J	
	On Chart No. 509	On previous survey No. T-2027 (1875)	On U. S. quadrangles U.S.E. Maps of 1866	From local information	On local Maps	P. O. Guide or Map	Rand McNally Atlas	U. S. Light List			
<u>St. Johns River</u>	✓	✓	✓								1
<u>Mosquito Grove</u>	✓		✓								2
<u>St. Francis</u>	✓		✓			✓	✓	✓	✓		3
<u>Deadman's Bend</u>	✓		✓								4
											5
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Names underlined in red approved  
by L.H. on 8/29/38

N.B. U.S.E. Blue print 12 606 (1907-08) appears  
to be original basis of chart 509,  
of which first edition was Oct. 1909.

TIDE NOTE FOR HYDROGRAPHIC SHEET

September 6, 1938.

Division of Hydrography and Topography:

✓ Division of Charts: Attention: Mr. E. P. Ellis

Tide Reducers are approved in  
2 volumes of sounding records for

HYDROGRAPHIC SHEET 6310

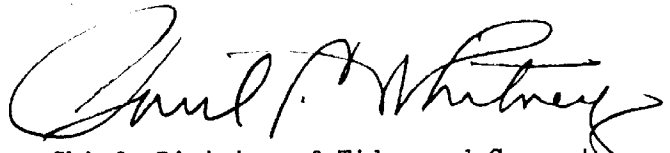
Locality Mosquito Grove to St. Francis, St. Johns River, Florida.

Chief of Party: L. D. Graham in 1938  
Plane of reference is mean low water reading  
3.0 ft. on tide staff at Astor  
6.0 ft. below B.M. R 58  
1.9 ft. on tide staff at DeLand Landing  
5.7 ft. below B. M. 1

Tide reducers are a mean of the readings of the Astor and DeLand  
Landing gages.

There is no periodic tide in this area. The plane of reference is the  
average water level during the period of lower river stages and corresponds  
approximately to the sea level datum of the Level Net.

Condition of records satisfactory except as noted below:

  
Chief, Division of Tides and Currents

# MEMORANDUM

## IMMEDIATE ATTENTION

SURVEY  
 DESCRIPTIVE REPORT } No. H -6310  
~~PHOTOSTAT OF~~ } ~~No. H -6310~~

{ received August 17, 1938  
 { registered August 27, 1938  
 { verified  
 { reviewed  
 { approved

This is forwarded in order that your attention may be directed to the matters as indicated below. Please initial in column 3 as an acknowledgement that your attention has been thus directed. The complete original records are available if desired. If you cannot give this your immediate attention, please initial, note, and forward to the next section marked, calling for the records at your convenience.

ROUTE		Initial	Attention called to
20			
22			
24			
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40			
62			
63			
82			
83			
88			
90			

RETURN TO

82	T. B. Reed
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✓ JBR

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 6310 (1938) FIELD NO. 43

Mosquito Grove to St. Francis, St. Johns River, Florida.  
Surveyed in February 1938, Scale 1:5000  
Instructions dated Nov. 9, 1936 (MIKAWA)

Hand Lead Soundings.

3 Point fixes on shore signals.

Chief of Party - L. D. Graham.  
Surveyed by - R. H. Carstens.  
Protracted by - G. E. Varnadoe.  
Soundings plotted by - G. E. Varnadoe.  
Verified and inked by - G. F. Jordan.

1. Condition of Records.

The records are neat and legible and conform to the requirements of the Hydrographic Manual except that datum and reference station notes were omitted from the smooth sheet by the field party. The necessary information was added in the office.

The Descriptive Report is complete and satisfactorily covers all items of importance.

2. Compliance with Instructions for the Project.

The survey satisfies the instructions for the project.

3. Shoreline and Signals.

- a. Shoreline originates with topographic maps T-5683 (1935) and T-5684 (1935). Signals inked in green on the smooth sheet are spotted from topographic features on these maps.
- b. Hydrographic signals originate with the present survey. Angles and distances used in their location are recorded in the sounding volumes.

4. Sounding Line Crossings.

Sounding line crossings are satisfactory.

5. Depth Curves.

The usual depth curves may be satisfactorily drawn.

6. Junctions with Contemporary Surveys.

The junction on the north with H-6309 (1938) is satisfactory.  
The junction on the south with H-6311 (1938) will be considered in the review of that survey.

7. Comparison with Prior Surveys.

T-2027 (1875).

This 1:80,000 scale reconnaissance survey contains a single line of soundings down the middle of the St. Johns River in the area covered by the present survey. Such depths as were obtained are in fair agreement with those on the present survey. The old survey contains no information of current value and may be disregarded in future charting of the common area.

8. Comparison with Chart 509 (New Print dated March 14, 1938).

a. Hydrography.

Within the area of the present survey the chart is based entirely on U. S. Engineers' B.P.'s 21062 and 21063 of 1925-26. Depths on the Engineers' surveys are in fair agreement with those on the present survey, but are not as numerous nor do they always define the deeper water. The present survey, because of its later information and better development, should supersede the Engineers' surveys in future charting of the common area.

b. Aids to Navigation.

The charted position of Beacon 30 (lat. 29°02'.3, long. 81°25'.0) is in substantial agreement with the position on the survey. The latter position adequately marks the feature intended.

c. Controlling Depth.

A limiting depth of 14 feet was found on the present survey as compared with the 8 foot controlling depth noted on the chart for the general area.

9. Field Plotting.

The field plotting was satisfactory.

10. Additional Field Work Recommended.

No additional field work is required.

11. Superseded Old Surveys.

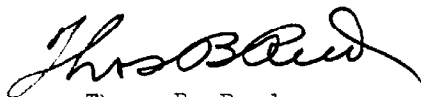
Within the area covered the present survey supersedes the following survey for charting purposes:

T-2027 (1875) in part.

12. Reviewed by- J. A. McCormick, December 15, 1938.

Inspected by E. P. Ellis,

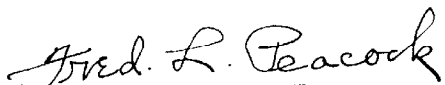
Examined and approved:



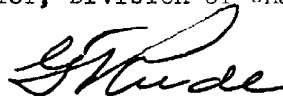
Thos. B. Reed  
Chief, Section of Field Records



K.T. Adams  
Chief, Division of Charts



Fred. L. Peacock  
Chief, Section of Field Work



G. H. Hude  
Chief, Division of Hydrography  
and Topography



Applied to chart # 688. April 27, 1940. L.A.M.