

6311

U. S. COAST & GEODETIC SURVEY  
LIBRARY  
AUG 12 1938  
Acc. No. \_\_\_\_\_

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

**DESCRIPTIVE REPORT**

~~Topographic~~ } Sheet No. 44  
~~Hydrographic~~ }

---

State Florida

LOCALITY

St. Johns River

~~Sealand Landing~~

St. Francis to Hawkinsville

---

1938

CHIEF OF PARTY

F. L. Gallen

U. S. GOVERNMENT PRINTING OFFICE

68

6311

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. 44

REGISTER NO. HG311

State Florida

General locality St. Johns River

Locality ~~DeLand, Landing~~ St. Francis to Hawkinsville

Scale 1:5,000 Date of survey Feb.-March, 1938

Vessel Launch MIKAWA

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

Surveyed by Raymond H. Carstens and G. W. Lovesee

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 F. B. Kelly

Verified by F. B. Kelly

Instructions dated \_\_\_\_\_ Nov. 9, 1936

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

## DESCRIPTIVE REPORT

To Accompany Hydrographic Sheet 44

INSTRUCTIONS - November 9, 1936

Project HT-212

### LIMITS

This sheet includes that part of the St. Johns River from St. Francis to a point approximately one half mile above DeLand Landing.

### SURVEY METHODS

A system of five lines were run in the main part of the river. The center line was run in the center of the open water area bounded either by the two shores or by one shoreline and the edge of the tuckahoe area. The inshore lines were run either along the edge of the tuckahoes or from 5 to 10 meters offshore depending on how far offshore overhanging branches or shoal water extended. Usually open water extended between shore and the tuckahoes and a line was run in this area. Ranges were used only on cross-lines. Positions on sounding lines were obtained by sextant fixes on hydrographic signals established ashore or by estimated distances from signals or topographic features. Soundings were taken with the leadline.

### DISCREPANCIES

See attached sheet titled "Notes on Sheet 44".

### DANGERS

There are no dangers to navigation on this sheet.

### CHANNELS

The only channel is that running down the center of the river. Where shoals extend off the banks the channel is outlined by the tuckahoes growing on the shoal. The least depth in the channel is 11 feet, in Lat.  $29^{\circ} 01.90'$ , Long.  $81^{\circ} 24.10'$ . In Lat.  $29^{\circ} 01.85'$ , Long.  $81^{\circ} 24.06'$ , the deep water favors the southwest bank. In the remainder of the river, as much or more than the least depth can be carried by following the center of the open water area.

### COMPARISON WITH PREVIOUS SURVEYS

The only previous survey available is that shown on chart 509 last print 7/11/35. In general deeper water was found than that shown on chart 509. The only sounding of importance that need be noted is the  $7 \frac{3}{4}$  ft. sounding shown on the chart 0.4 mile above Revolving Bend. In the last survey 9 and 10 feet of water was found in the middle of the river in this vicinity and deeper water could be found by favoring the southwest bank.

GEOGRAPHIC NAMES

No new geographic names for this area are noted. See report submitted by air photo compilation party under H. A. Paton for new geographic names.

Submitted by,

*Raymond H. Carstens*  
Raymond H. Carstens  
Deck Officer, U.S.G.S.

Approved and forwarded:

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

NOTES ON SHEET FIELD NO. 44

Spotted signal Oak was relocated by an angle at Top from Doc and distance from Top. This distance was measured in both directions (see pages 3 and 4, volume 1). See page 7 for cut from Job. At Top the distance to the southwest shore does not check (page 4).

The hydro location and air photo sheet location fail to check on signal All, page 4. More cuts were taken, page 5, that check air photo location. There is a small tree islet shown to the southeastward of beacon 34 that is not shown on the boat sheet. Possibly a mistake could have been made when transferring shoreline.

Hydro location of Jam is shown on boat sheet as preferable to spotted location. However, it seems as though spotted location is better because cut and distance to Jay fall on cut from Bid.

Spotted signal Hot (27) was relocated by angle and distance at Ash from Hip. Hydro location seems to check well with other signals in vicinity.

Location of Pat was changed to agree with the boat sheet.

Signals were cut in from photo signals shown on the sheet in green in accordance with "Methods Employed in Making Surveys of Mangrove Fringed Rivers and Creeks", a report by Carl I. Aslakson.

STATISTICS FOR SHEET 44

Date	Day Letter	Positions	Soundings	Statute Miles
Feb. 24	A	55	414	7.6
25	a	31	187	3.0
28	b	141	882	14.0
March 1	c	<u>45</u>	<u>168</u>	<u>2.4</u>
		272	1651	27.0

Smooth sheet field number 141 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  
E. & G. Engr.  
Chief of Party

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. **H6311**

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

Number of positions on sheet	<b>272</b>
Number of positions checked	<b>7</b>
Number of positions revised	<b>0</b>
Number of soundings recorded	<b>1651</b>
Number of soundings revised	<b>8</b>
Number of signals erroneously plotted or transferred	<b>0</b>

Date:

Verification by *Francis B. Kelly*

Review by J.A. McCormick, Jan. 14, 1939.

Time: 38 hrs.

Time: 4 hr.



Verifiers report on H 6311 (1938).

The records conform to the requirements of the General Instruction.

The signals in blue are original on the boat sheet, those shown in green were spotted from the photographs. T 5684 is the topographic map covering most of the area of H 6311. T 5685 covers the remainder but it has not as yet been received.

The junction on the north with H 6310 (1935) and on the south with H 6312 (1935) are good.

Several minor discrepancies between the smooth sheet & T 5684 (1935) e.g. the opening in the shoreline between O PAT and O HAT just north of Hermitage Pt (29°01) was not shown on T 5684, the balloon shaped section of stream just east of O GOT (81°24) and the stream at O JAM (81°24) were reported to the Air Photo section.

A row of pilings at the mouth of the St. Francis Reef River was plotted from the soundings, Nords (P 41 Vol 1). It did not appear on the smooth sheet, boat sheet or on T 5684.

Francis B. Kelly

Jan 6, 1939

HYDROGRAPHIC SURVEY NO. H-6311

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 4 ; Last Date March 1, 1938

Remarks

Remarks

Decisions

	Remarks	Decisions
1		U.S.G.B
2	App'd spelling ' <u>DeLand</u> ' (as one word)	See T 5684
3		
4		U.S.G.B.
5		
6	Unnecessary name. Revolving Bend as charted is sufficient	
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
M 234		

GEOGRAPHIC NAMES

Survey No. H6311

Name on Survey

	A. On Chart No. 509	B. On previous survey No. T-2027 (18757)	C. On U. S. quadrangle U.S.G.P. Maps, L. 606 (1907-08)	D. From local 1931 information (Railway 6-wide)	E. On local Maps	F. 1931 P. O. Guide or Map	G. 1935 U. S. S. State Map	H. Rand McNally Atlas	I. U. S. Light List	J. U.S.C.P. (D)
<u>St. Johns River</u>	✓	✓							✓	1
<u>De Land</u> <del>De Land Landing</del>	DELAND		✓	De Land		De Land	De Land	De Land	De Land	2
<u>Hawkinsville</u>		✓	✓					✓		3
<u>St. Francis</u>	✓	old-town	✓				✓	✓	✓	4
<u>Revolving Bend</u>	✓		✓							5
<del>Canal</del>								✓		6
<u>Crows Bluff</u>	✓		✓				✓	✓	✓	7
<u>St. Francis Dead River</u>	✓		✓							8
<u>Hermitage Pt</u>	✓		✓						✓	9
<u>Highland Park Canal</u>	✓		✓							10
										11
										12
										13
										14
										15
										16
										17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27

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 source of chart 509, of which first edition was Oct, 1909.

uc

### 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

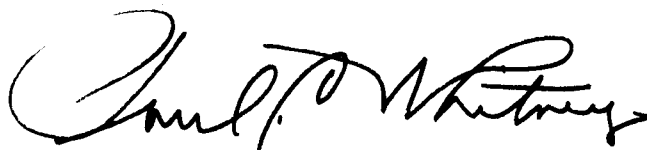
HYDROGRAPHIC SHEET 6311

Locality St. Francis to Hawkinsville, St. Johns River

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

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  
~~PHOTO STAMPOK~~

No. H-6311  
~~No. 07x~~

{ received August 12, 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			
25			
26			
30			
40			
62			
63			
82			
83			
88			
90			

RETURN TO

82	T. B. Reed
----	------------

*✓ TBR*

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 6311 (1938) FIELD NO. 44

St. Francis to Hawkinsville, St. Johns River, Florida.

Surveyed in Feb. - March, 1938, Scale 1:5,000

Instructions dated Nov. 9, 1936 (MIKAWÉ)

Hand Lead Soundings.

3 Point fixes on shore signals.

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

1. Condition of Records.

The records are neat and legible and conform to the requirements of the Hydrographic Manual. Reference station and datum notes were omitted from the smooth sheet by the field party but were 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 is from topographic maps T-5684 (1935) and T-5685 (1935). The latter has not yet been received in the office but will be compared with the present survey when it arrives. Signals inked in green on the smooth sheet are spotted from topographic features on these maps.

b. Angles and distances used in the location of the hydrographic signals 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 junctions with H-6310 (1938) on the north and H-6312 (1938) on the south are satisfactory.

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 portion covered by the present survey. It bears only a general resemblance to the present survey and need not be considered 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 on U. S. Engineers' B. P. 21063 of 1925-26 and on Chart Letter 465 of 1931. The latter is authority for the charting in lat.  $29^{\circ}00.7'$ , long.  $81^{\circ}23.3'$  of an overhead cable with a clearance of 72 feet.

The data in the letter is only approximate and the cable should be charted as shown on the present survey. Depths on the present survey are, in general, deeper than those on the Engineers' survey. The latter seems to have missed most of the deeps altogether. The present survey, because of its later information and greater development, should supersede the Engineers' survey in future charting of the common area.

b. Aids to Navigation.

Positions on the survey of navigational aids in the area are in substantial agreement with the charted positions and adequately mark the features intended.

c. Controlling Depth.

The survey shows a controlling depth of 10 feet in this portion of the river as compared with 8 feet noted in the chart for the general area.

9. Field Plotting.

The field plotting was satisfactory.



10. Additional Field Work Recommended.

No additional 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, January 14, 1939.

Inspected by E. P. Ellis,

Examined and approved:



Thos. B. Reed,  
Chief, Section of Field Records

K. T. Adams  
Chief, Division of Charts



Chief, Division of Hydrography  
and Topography.

G. L. Peacock  
Chief, Section of Field Work

Applied to Chart # 688. April 29, 1940. LAm.