

6302

U. S. COAST & GEODETIC SURVEY
LIBRARY

MAY 28 1938

Acc. No. _____

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

DESCRIPTIVE REPORT

Topographic }
Hydrographic } Sheet No. 40

State Florida

LOCALITY

St. Johns River

Lake Dexter and Lake Woodruff

1938

CHIEF OF PARTY

L. D. Graham

U. S. GOVERNMENT PRINTING OFFICE

6302

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES

MAY 31 1938

REG. NO.

Acc. 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. 40

REGISTER NO. HG302

State Florida

General locality St. Johns River

Locality Lake Dexter and Lake Woodruff

Scale: 1:10,000 Date of survey Jan. 31 - Feb. 22, 1938

Vessel Launch MIKAWA

Chief of Party L. D. Graham

Surveyed by G. W. Lovesee & R. H. Carstens

Protracted by E. F. Hicks

Soundings penciled by E. F. Hicks

Soundings in ~~fathoms~~ feet

Plane of reference M.S.L.

Subdivision of wire dragged areas by _____

Inked by Wallace A. Bruder

Verified by Wallace A. Bruder

Instructions dated _____ November 9, 1936

Remarks: _____

DESCRIPTIVE REPORT

H-6302

To Accompany Hydrographic Sheet 40

INSTRUCTIONS -

The survey was executed in accordance with instructions dated November 9, 1936 for Project HT 212.

LIMITS -

This sheet includes Lake Dexter, Tick Island Creek and Lake Woodruff.

CONTROL -

The signals on Lake Dexter were located by graphic triangulation on graphic control sheet GGG and are shown on the sheet in red ink. The signals in Tick Island Creek were located with sextant angles and sextometer distances from green signals. The green signals were spotted on the photographs by the field inspection party and located on the Map Drawing by radial plot. The geographic positions in green signals were scaled by the Air Photographic Survey Party, and a copy is attached herewith. The signals located with the sextant are shown in blue. The signals in Tick Island Creek were plotted on graphic control Sheet HHH and transferred to the smooth sheet. The signals on Lake Woodruff were located by a traverse with sextant and sextometer originating at triangulation station Jones Island, 1935 and was tied to green signals OAR and PRO. The signals were plotted on graphic control sheets HHH and JJJ and transferred to the smooth sheet. The shore line was transferred from Air Photographs by H. A. Paton.

SURVEY METHODS -

Standard Coast Survey methods were followed on doing the hydrography. Sounding lines in the lakes were run on ranges and controlled by sextant fixes. Soundings were taken with the leadline. In Tick Island Creek, Dead River and Scoggin Creek sounding lines were run following the shoreline.

DISCREPANCIES

There are no discrepancies on this sheet. ✓

DANGERS

The only dangers on this sheet are the shoals and spoil banks along the edge of the channels. The main channel through Lake Dexter following the course of the St. Johns River shoals rapidly to 3 or 4 ft. along the edges. It is well marked with beacons and lights and the shoals can easily be avoided. In Lat. $29^{\circ}07.27'$, Long. $81^{\circ}30.26'$ a spoil bank having a least depth of 1 foot and surrounded by depths of 6 and 7 feet lies near the main channel but can easily be avoided by following the beacons. The eastern end of Lake Dexter shoals to 1 and 2 feet and is filled with a growth of tuckahoes. These collect floating hyacinth and prove a hindrance to navigation. The dredged cut in the northwest corner of Lake Woodruff is bordered on both sides by spoil banks, which bare at low water. The spoil banks can easily be avoided by following the beacons marking the cut. The approach to the cut is clearly outlined by tuckahoes growing on the shoals. ✓

CHANNELS

The main channel leading from the St. Johns River across Lake Dexter is well marked by lights and beacons. It has a least depth of 9 feet found in Lat. $29^{\circ}07.35'$, Long. $81^{\circ}30.30'$ and Lat. $29^{\circ}06.47'$, Long. $81^{\circ}29.98'$. A privately maintained cut crosses the tuckahoe area in the eastern part of the lake and leads into Tick Island Creek. Five feet can be carried from the channel across the lake to the cut. This depth occurs near the entrance of the cut. Five feet can be carried through the cut into Tick Island Creek. This depth occurs over practically the entire length of the cut. Tick Island Creek has a natural channel with a depth of over six feet. In the northwest part of Lake Woodruff a cut leads from Tick Island Creek into the lake. This cut has a depth of five feet over its entire length. Four feet can be carried from this cut across Lake Woodruff to the cut in the northeast corner of the lake. Lake Woodruff has a very uniform bottom with a depth of 5 feet over the greater portion of it. Dead River and Scoggin Creek leading from the southeast corner of the lake are blocked by bars having a least depth of two feet at their mouths. ✓ 25

COMPARISON WITH PREVIOUS SURVEYS

The only previous survey available was that shown on chart 509 last print 7/11/35. The few scattered soundings shown on the chart are in very good agreement with the depths found in the present survey. Only part of Lake Woodruff had previously been charted.

GEOGRAPHIC NAMES - ✓ GAE

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

Submitted by,

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

Approved and forwarded:

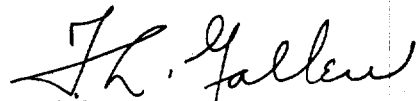
F. L. Gallen

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

LIST OF STATISTICS - SHEET 40

Date	Day Letter	Statute Miles	Soundings	Positions
Jan. 31	a	14.0	697	111
Feb. 9	b	6.0	199	35
10	c	12.9	478	68
11	d	19.7	787	122
14	e	12.4	518	98
15	f	9.0	346	74
16	g	15.8	594	102
17	h	28.8	1029	139
18	j	21.4	826	127
22	k	1.8	61	9
		<u>141.8</u>	<u>5535</u>	<u>885</u>

Smooth sheet No. 40 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
H. & G. Engineer
Chief of Party

GEOGRAPHIC NAMES
Survey No. **H6302**

Name on Survey	On Chart No. 509		On previous survey		On U. S. quadrangle Maps		From local information		On local Maps		P. O. Guide or Map		Rand McNally Atlas		U. S. Light List	
	A	B	C	D	E	F	G	H	K							
<input checked="" type="checkbox"/> <u>St. Johns River</u>	✓															1
<input checked="" type="checkbox"/> Orange Bluffton	✓															2
<input checked="" type="checkbox"/> <u>Lake Dexter</u>	✓									Dexter Lake						3
<input checked="" type="checkbox"/> <u>Tick Island Creek</u>																4
<input checked="" type="checkbox"/> <u>Lake Woodruff</u>	✓															5
<input checked="" type="checkbox"/> <u>Spring Garden Creek</u>																6
<input checked="" type="checkbox"/> <u>Scoggin Creek</u>																7
<input checked="" type="checkbox"/> <u>Norris Dead River</u>																8
																9
																10
																11
																12
																13
																14
																15
																16
																17
																18
																19
																20
																21
																22
																23
																24
																25
																26
																27

Names established in field approved
by *WHE* on 6/10/38
on 1/17/39

See File Nos. For
References
Decisions

Remarks.

	Remarks.	References Decisions
1		USGB decision
2		File No 291815
3		File No. 291 814
4		File No. " "
5		File No 290 814
6		File No. 291 814
7		File No. 290 814
8		File No. " "
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
M 234		

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
 DESCRIPTIVE REPORT
~~PHOTO STAT OF~~

No. H -6302
~~NOTE~~

received May 28, 1938
 registered June 3, 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	✓	<i>J</i>	<i>Page 2</i>
26			
30			
40			
62			
63			
82			
83			
88			
90			

RETURN TO

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

✓ *TBR*

Field Records Section (Charts)

H6302

HYDROGRAPHIC SHEET NO.

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

Number of positions on sheet 885
Number of positions checked 75
Number of positions revised 5
Number of soundings recorded 5,535
Number of soundings revised 60
Number of signals erroneously plotted or transferred 0

Date: *November 29, 1938*

Verification by *Wallace A. Bruden*

Time: *70 hrs 30 min*

Review by J.A. McCormick, Dec. 13, 1938.

Time: 8 hrs.

HYDROGRAPHIC SURVEY NO. H6302

Smooth Sheet Yes

Boat Sheet Yes

Records; Sounding 5 Vols., Wire Drag Vols., Bomb Vols.

Descriptive Report Yes

Title Sheet Yes

List of Signals Vol. #2

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 10 ; Last Date Feb. 22, 1938

Remarks

TIDE NOTE FOR HYDROGRAPHIC SHEET

July 28, 1938.

Division of Hydrography and Topography:

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

Plane of reference
~~Tides~~ approved in
5 volumes of sounding records for

HYDROGRAPHIC SHEET 6302

Locality Lake Dexter to Lake Woodruff, St. Johns River

Chief of Party: L. D. Graham in 1938
Plane of reference is mean low water reading
3.0 ft. on tide staff at Astor *off limit of H 6302 (see H 6301)*
6.0 ft. below B.M. R 58
1.9 ft. on tide staff at DeLand Landing *off limit of H 6302 (see H 6311)*
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 the lower river stages and corresponds to sea-level datum of the Level Net.

Condition of records satisfactory except as noted below:



Acting Chief, Division of Tides and Currents.

① The records conform very well to the requirements of the General Instructions. However there were numerous signals plotting outside the high water line that were not described in the records.

As yet the verifier has not located the descriptions for the following signals:

- ~~RAT~~
- ~~NED~~
- KAY ✓
- ~~MAP~~
- ~~BUN~~
- HUG ✓
- NUT ✓
- ~~ACE~~
- ~~FOX~~
- ~~BAG~~
- ~~WHO~~
- ~~ALL~~
- ~~XES~~
- ~~YOU~~
- ~~HUG~~

Note: The verifier kept this list in front of him the whole time during verification and inking in order to keep a close lookout for a description of any of these signals. Also the list of signals in the graphic control volume (no 1) was carefully checked line for line in search of additional information.

The only source not further investigated are the cuts taken to a file. In such case the file might be a signal on the list.

11/30/38 All signals outside of highwater line described OK with exception of KAY, HUG, & NUT which are all within 15 meters of H.W.

Boat sheet states that all signals outside high water line are temporary unless otherwise noted. A similar note has been added to the smooth sheet.

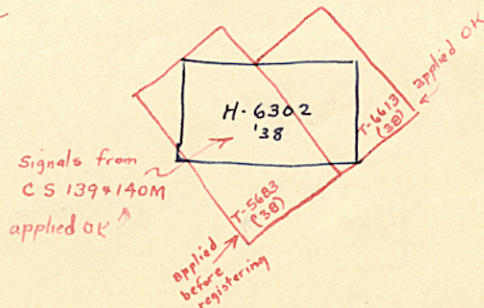
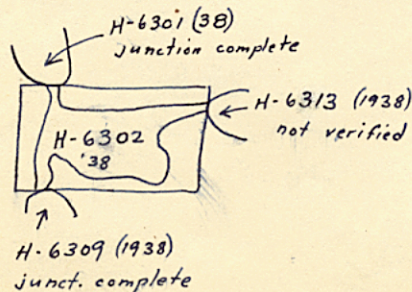
② The usual depth curves were completely drawn.

③ The field plotting was complete to the extent prescribed in the Hydrographic Manual, with the exception of not plotting the hydrographic signal TIM $\phi 29^{\circ} 06.5'$ $\lambda 81^{\circ} 25.5'$. As this was needed for a fix, the verifier plotted it in the office from a 3 point fix and cuts in the records. (vol. 1 page 36, bottom)

Verifier's plotting checks field plotting on CS 140 M.

④ The office draftsmen did not have to do over any of the drafting done by the field party.

⑤



⑥ Remarks (Accepted without mention in review).

It is recommended to always join lines that turn about with the usual pencil line.

Vol. 2 page 8 gives detached position on gravel bank, but no bottom characteristic. The bottom is probably soft, but was not shown.

All of the 60 soundings that were revised were done (except for 2 sndgs) to correct the plotting of 5 ^{positions} ~~signals~~. A typical correction was moving position 26 C-143 meters west by using O LUM as left object instead of O DAY. All in all the plotting was excellent.

Respectfully submitted,

Wallace A. Bruder

11/29/38

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 6302 (1938) FIELD NO. 40.

Lake Dexter and Lake Woodruff, St. Johns River, Florida.

Surveyed in Jan.-Feb., 1938, Scale 1:10,000.

Instructions dated Nov. 9, 1936 (MIKAWA)

Hand Lead Soundings.

3 Point fixes on shore signals.

Chief of Party - L. D. Graham.

Surveyed by - G. W. Lovesee and R. H. Carstens.

Protracted - E. F. Hicks.

Soundings plotted by - E. F. Hicks.

Verified and inked by - W. A. Bruder.

1. Condition of Records.

The records are neat and legible and conform to the requirements of the Hydrographic Manual.

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

2. Compliance with Instructions for the Project.

The survey satisfied the instructions for the project.

3. Shoreline and Signals.

- a. Shoreline originates with Topographic maps T-5683 (1935) and T-5684 (1935); and topographic survey T-6613 (1938).
- b. Signals inked in green on the smooth sheet were spotted from topographic features on the above topographic maps.
- c. Signals inked in red were located on correction sheet CS 139M by standard topographic methods.
- d. Signals inked in blue were plotted on correction sheets CS 139 M and CS 140 M and topographic survey T-6613 (1938) from angles and distances recorded in the sounding volumes for the present survey and for H-6313 (1938). The positions thus obtained were transferred to the present survey.

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.

- a. The junctions with H-6301 (1938) and H-6309 (1938) on the west are satisfactory.
- b. The junction with H-6313 (1938) on the northeast will be considered in the review of that survey.

7. Comparison with Prior Surveys.

T-2027 (1875).

Within the area of the present survey the above 1:80,000 scale reconnaissance survey shows no soundings in Lakes Dexter or Woodruff and only a very few in the main channel of the St. Johns River. Such depths as were obtained are in fair agreement with those on the present work but the old survey, because of its extreme sketchiness, should 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 on surveys by the U. S. Engineers', the latest and only one readily available being shown on B.P.21061 of 1925-26. Only a portion of Lake Woodruff is charted, the Engineers' apparently not having extended their surveys to completely cover the lake. Charted depths are in fair agreement with those on the present survey which, however, because of its later date and more complete information, should supersede all prior surveys in future charting of the common area.

b. Aids to Navigation.

Charted positions of navigational aids in the area are in substantial agreement with the positions on the survey. The survey locations adequately mark the features intended.

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 old survey for charting purposes:

T-2027 (1875) in part.

12. Reviewed by - J. A. McCormick, December 13, 1938.

Inspected by E. P. Ellis,

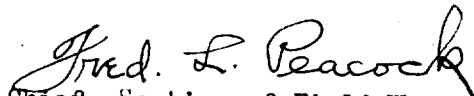
Examined and approved:




Thos. B. Reed
Chief, Section of Field Records



K.T. Adams
Chief, Division of Charts



Fred. L. Peacock
Chief, Section of Field Work



G.F. Stude
Chief, Division of Hydrography
and Topography

Applied to Chart # 687. December 1939. L.Am.
Applied to Chart # 688 April 27, 1940. L.Am.

291 814-5

290 814