6307

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

DESCRIPTIVE REPORT

~~Topographic~~
Hydrographic } Sheet No. 48

State Florida

LOCALITY

St. Johns River

Lake Monroe

1938

CHIEF OF PARTY

F. L. Gallen - L.D.Graham

U. S. GOVERNMENT PRINTING OFFICE

6307

Form 537

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. 48

REGISTER NO. H6307

State Florida

General locality St. Johns River

Locality Lake Monroe

Scale 1:10,000 Date of survey March, 1938

Vessel Launch MIKAWE

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

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.~~ Average water level during Lower River Stages

Subdivision of wire dragged areas by

Inked by G.F. JORDAN

Verified by G.F. JORDAN

Instructions dated Nov. 9, 1936

Remarks:

U. S. GOVERNMENT PRINTING OFFICE

DESCRIPTIVE REPORT

To Accompany Hydrographic Sheet 48 H-6307

INSTRUCTIONS - November 9, 1936 Proj. HT-212

LIMITS

This sheet includes Lake Monroe and about ½ mile of the St. Johns River below Lake Monroe.

SURVEY METHODS

Sounding lines in the St. Johns River were run following the general trend of the channel. Sounding lines in Lake Monroe were run on ranges. Positions on sounding lines were obtained by sextant fixes on signals located by graphic control or spotted from air photographs. Signal Cor, as located by air-photograph, was found to be in error and was re-located by a sextant fix. See position in sounding record. Soundings were obtained with the leadline. Topographic sheets XXX and YYY cover this area. CS143M CS144M

DISCREPANCIES:

The one foot sounding in Lat. 28° 49.33', Long. 81° 15.23' was disproved by investigation and additional lines, Positions 119 k day, 114 to 119 1 rejected day, and should not be charted as 1 foot.

DANGERS

The greater protion of the lake is relatively flat and presents no dangers. A dredged channel extends from the St. Johns River at the west end of the lake to Sanford. Spoil dumped along the edge of the channel forms shoals which are dangerous to navigation. The spoil banks are not continuous and in places can be detected by soundings only a foot or more shoaler than the surrounding depths. Two sets of beacons both numbered 1 and 2 indicate breaks in the spoil bank. However, the same amount of water shown in these breaks can be carried over the spoil bank in numerous other places. The shoalest depths found on the spoil area are, 2 feet found in Lat. 28°49.90', Long. 81°18.55'; 1½ foot found in Lat. 28° 49.87', Long. 81°18.09'; 2 feet found in Lat. 28°49.08', Long. 81°16.10'. Near the city of Sanford another cut branches from and then rejoins the main cut. The spoil bank within the triangle formed by the cuts is awash at low lake level in Lat. 28°49.05', Long. 81°16.39'. This spoil area is well outlined by channel beacons and can be easily avoided. The area of the lake in the vicinity of Lat. 28°49.6', Long. 81°18.1' is foul with old piling awash and some piling several feet out of water. The snags found in the east end of the lake are palmetto logs awash with one end on the bottom. They probably change position with each storm.

CHANNELS

The main channel consists of the natural channel through the St. Johns River and the dredged cut marked by the lighted beacons from the St. Johns River to Sanford. The limiting depth in this channel is 8 ft. found numerous places in the dredged cut. ~~Eight~~ Seven feet can also be carried from Sanford across Lake Monroe to ~~Benson Springs~~ Enterprise. A dredged cut carrying ~~8~~ 7 feet of water runs into ~~Benson Springs~~ Enterprise from well out in the lake. At Sanford only, are the docks in water of any depth. A bank with a least depth of 6 feet extends southeastward off the Municipal Dock dividing the deep water off the St. Johns River Line Dock. Four feet can be carried through the dredged cut running from Lake Monroe eastward into the St. Johns River. A number of deep holes lie along the south shore of the lake. These were made when material was dredged for the road along the shore. They are unmarked.

25

COMPARISON WITH PREVIOUS SURVEYS

The only previous survey available was that shown on chart 509 last print 7/11/35. The depths as shown on the chart are about 1 foot deeper than those found in the present survey. This may be due to a slight difference in fuguring the tidal datum. The spoil banks along the cuts were found to be not so extensive as those shown on the chart.

GEOGRAPHIC NAMES

A number of new geographic names were found. These are: Grassy Point - established by local usage. This point on the southeast shore of the lake was thus named because of the marsh grass covering the point. Only a few trees are on the point. Stone Island - established by local usage. This name is applied to the island forming part of the east shore of the lake. It is so called because of the stones found on the west side of the island. Woodruff Creek - established by local usage. This is the name of the creek leading out of the south east corner of the lake. No information is had as to the origin of the name. Becks Point - established by local usage. The name applied to the point on the northwest shore of the lake. The land along this shore was at one time owned by a man named Beck. The town of Benson Springs has resumed its former name of Enterprise and the Post Office is now Enterprise. See descriptive report for topographic sheet.

85

Submitted by,

Raymond H. Carstens

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

Approved and forwarded:

F. L. Gallen

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

STATISTICS FOR SHEET 48 H-6307

Date	Day Letter	Soundings	Statute Miles	Positions
March 10	a	348	8.9	72
11	b	889	23.1	147
14	c	908	25.6	131
15	d	984	28.6	139
16	e	798	22.9	120
17	f	277	8.0	58
18	g	966	28.0	150
21	h	1075	32.0	150
22	j	1005	30.0	145
23	k	1025	31.8	149
24	l	723	18.3	119
25	m	761	17.2	130
26	n	218	5.6	57
28	p	150	3.7	34
		10127	283.7	1601

H-6307

Smooth sheet number 48 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. Engr.
Chief of Party

Verifier's Report on H-6307

1. This survey makes a junction on the west with H-6306 (1938). No (contemporary) survey joins on the east.

2. Control is from CS 143M and CS 144M, and from T-5688. [1]T5688 The latter has not been received from the field. Shoreline and detail comparison has not been made with T-5688. [2]T5688 Note made of this in Rev. Section.

3. The records and plotting of the smooth sheet conform to general instructions.

4. Remarks.
   (a) The survey and plotting is excellent.
   (b) No Reference station was given.

Dec. 19, 1938

George F. Jordan

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. H6307

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

Number of positions on sheet	1601
Number of positions checked	27
Number of positions revised	0
Number of soundings recorded	10127
Number of soundings revised	28
Number of signals erroneously plotted or transferred	0

Date: Dec. 19, 1938

Verification by G.F. JORDAN Time: 53 hrs.

Review by Harold W. Murray Time: 7 "

HYDROGRAPHIC SURVEY NO. H-6307

Smooth Sheet Yes

Boat Sheet Yes

Records; Sounding 6 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 None
(Circular Nov.30, 1933)

Hydrography: Total Days 14 ; Last Date March 28, 1938

Remarks

3776

	Remarks	Decisions
1		
2		U. S. G. B.
3		
4	1937 P.O. Guide shows this name, changed from Benson Springs	
5		
6	T5687 puts center near 51.0; 14.2' Hold for topo. sheet as location uncertain	
7	U.S.E. Blueprint 28952 (1935)	
8	Location corrected 7/18/39 after receipt T5687	
9	Same as Enterprise, line 4 above	
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M 234		

GEOGRAPHIC NAMES

Survey No. H6307

Name on Survey	On Chart No. 509 A,	On previous survey No. T-2027 (1875) B,	On U. S. quadrangle Maps C,	From local information (Page 2) D	E	On local Maps F	1936 P. O. Guide or Map G	1935 Rand McNally Atlas H	U. S. Light List K	
✓ Lake Monroe	✓	✓				✓	✓	✓		1
St. Johns River	✓	✓				✓	✓	✓		2
✓ Sanford	✓	✓				✓	✓	✓		3
✓ Enterprise	✓	✓	U.S.E 1934 G P.27540	✓						4
✓ Grassy Pt.				✓						5
Stone Island				✓						6
✓ Woodruff Creek				✓						7
✓ Beck's Pt.				✓						8
~~Belsole~~ Springs						✓	✓			9
										10
										11
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Names underlined in red approved by L. H. on 8/29/38

M 234 ✓R

FORM M-238

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
DESCRIPTIVE REPORT } No. H -6307
PHOTOSTAT OF } No. T

received June 25, 1938
registered July 22, 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	✓	JB	Pages 1 and 2
26			
30			
40			
62			
63			
82			
83			
88			
90			

RETURN TO

82	T. B. Reed

✓ JBR

rae

Form 712
DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
Ed. Feb. 1935

TIDE NOTE FOR HYDROGRAPHIC SHEET

July 28, 1938.

Division of Hydrography and Topography:

Division of Charts: Attention: Mr. R. P. Ellis.

Plane of reference
~~Tide Reducers are~~ approved in
6 volumes of sounding records for

HYDROGRAPHIC SHEET 6307

Locality Lake Monroe, St. Johns River

Chief of Party: L. D. Graham in 1938
Plane of reference is mean low water reading
0.0 ft. on tide staff at Sanford
8.6 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.

U. S. GOVERNMENT PRINTING OFFICE

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 6307 (1938) FIELD NO. 48

Lake Monroe, St. Johns River, Florida.
Surveyed in March 1938, Scale 1:10,000.
Instructions dated Nov. 9,1936 (MIKAWE)

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 as follows:

a. No reference station was shown. This was added in the office.

b. No landmarks for charts on form 567 was submitted.

The Descriptive Report is clear and satisfactorily covers all items of importance except that mention should have been made of the features discussed in par. 8a (1), (2), (3) and 8c (1) this review.

2. Compliance with Instructions for the Project.

The plan, character and extent of the survey satisfy the instructions for the project.

3. Shoreline and Signals.

a. The shoreline originates with topographic map T-5688 (1935). T-5687 (1935) The transfer of topographic detail will be verified when that sheet is available.

b. Topographic signals originate with correction sheets CS 143M and CS 144M. Signals inked in green were spotted from topographic features on T-5688 (1935). Hydrographic signals originate with sounding records of the present survey.

4. Sounding Line Crossings.

Agreement of sounding line crossings is satisfactory.

5. Depth Curves.

The usual depth curves may be satisfactorily drawn.

6. Junctions with Contemporary Surveys.

a. The junction on the west with H-6306 (1938) is satisfactory.

b. The junction on the east will be considered when that work is received from the field.

7. Comparison with Prior Surveys.

T-2027 (1875), Scale 1:80,000.

This small scale reconnaissance survey contains a single line of soundings running down St.Johns River and two lines in Lake Monroe. The present survey depths generally vary 1 to 3 feet shoaler. The present survey should supersede this survey in the common area in future charting.

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

a. Hydrography.

Hydrographic information shown on the chart originates entirely with miscellaneous sources:

(1). The charted dredged channel outline leading to SANFORD and the soundings in ST.JOHNS RIVER on the west originate with Engineers' Blueprints 21067 and 21068 of 1925-26. The depths agree favorably in some spots but in others the present survey depths vary 1 to 3 feet shoaler. The outline of the dredged channel agrees favorably with the present survey delineation. The charted spoil banks on the north side of the main channel also originate with B.P.21068. The present survey shows that portions of these banks have been worn away whereas others still have a least depth of $2\frac{1}{2}$ to 6 feet over them. The present survey should supersede the above information in the common area in future charting.

(2). The charted dredged channel outlines at Enterprise, on the east at St.Johns River and southwestward of the main channel at Sanford originate respectively with B.P. 27340 of 1934, Chart Letter 82 of 1914 and B.P. 27339 of 1934. These are in agreement with the present survey delineation. The present survey should supersede this information in future charting.

The charted spoil banks within the triangle formed by the channels at Sanford also originate with B.P. 27339 of 1934. The larger of these on the east is confirmed by the present survey. The smaller banks on the west are not verified by the present survey nor are they mentioned in the sounding records or descriptive report. The hydrographer, R.H.Carstens who is now in the office states that line 28 to 30 L which practically coincides with the line of spoil banks was run when the water was clear and that these banks would have been seen if existing in their present form. They should be disregarded in future charting.

3. The charted cable crossing with overhead crossing clearance of 77 feet near the western limits of the present survey which originates with Chart Letter 465 of 1931 was verified on the present survey except that no clearance is given. The charted clearance should be retained pending receipt of topographic map T-5685 (1935) at which time a final disposition will be made.

4. The source of the charted hydrography in Lake Monroe could not be readily ascertained but it is shown on the 1st Standard of Chart 509 in 1909. The comparison noted in the Descriptive Report, page 2, par. 2 is adequate. The present survey should supersede this information in future charting.

b. Controlling Depths.

A general note on the chart states that the controlling depth from Palatka to Sanford was 8 feet, thence 3 feet to Lake Harney as of Nov. 1937. Within the area covered, the present survey shows a controlling depth of 8 and 4 feet respectively.

The charted controlling depth in the dredged channel at Enterprise is 8 feet as of 1934. The present survey shows a controlling depth of 7 feet at the entrance although slightly deeper depths exist within the channel proper.

c. Aids to Navigation.

Charted aids are in general spotted in relation to the topography because no projection is shown on the chart. The charted aids are in substantial agreement with the present survey and satisfactorily mark the features intended except as follows:

(1). Charted beacon No. 7 and an unnumbered beacon just eastward in lat. 28°49.0', long. 81°16.4' were not verified on the present survey. The hydrographer, R. H. Carstens who is now in the office states that these beacons are non-existent.

9. Field Plotting.

Field protracting and plotting were accurate and conform to the requirements of the Hydrographic Manual.

10. Additional Field Work Recommended.

This is an excellent survey and no additional field work is required.

11. Superseded Prior Surveys.

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

T-2027 (1875) in part, hydrography only.

12. Reviewed by Harold W. Murray, December 21, 1938.

Inspected by J. A. McCormick,

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

Chief, Division of Hydrography and Topography.

Applied in part to Chart #688. { May 2, 1940. F.A.M.
May 4, 1940 H.E.M.