

6435

6435

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

DESCRIPTIVE REPORT

~~Topographic~~ } Sheet No. 61
Hydrographic }

U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES

MAR 9 1940

Acc. No. _____

State Florida

LOCALITY

St. Johns River

Lake Harney

1939

CHIEF OF PARTY

F. L. Gallen

U. S.

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. 61

H6435

REGISTER NO.

H-6435

State Florida

General locality St. Johns River

Locality Lake Harney

Scale 1:10,000 Date of survey March, 19 39

Vessel Launch MIRAGE

Chief of Party F. L. Gallen

Surveyed by E. B. Brown, Jr.

Protracted by H. J. Bozzo

Soundings penciled by H. J. Bozzo

Soundings in ~~fathoms~~ feet

Plane of reference Local ~~M.S.L.~~ M.L.W.

Subdivision of wire dragged areas by

Inked by Joseph M. Vousek

Verified by Joseph M. Vousek

Instructions dated Oct. 20, 19 38

Remarks:

DESCRIPTIVE REPORT

To Accompany Hydrographic Sheet 61. H-6435

INSTRUCTIONS: - Supplemental, Oct. 20, 1938 - Proj. HT-212

LIMITS - Lake Harney.

SURVEY METHODS

The projection was made in the Washington Office on the ruling machine. The shoreline was furnished by the air photographic party at Palatka, Florida. The triangulation stations were located by the Engineer Department of the U. S. Army and by U. S. Coast and Geodetic Survey Party. These stations were supplemented by graphic control stations on sheets field numbers AAAA and BBBB. The graphic control party was in immediate charge of Lieutenant (j.g.) Charles A. Schanck. see page 5

The soundings were taken with a hand lead line from a skiff propelled by two outboard motors. The lines were controlled by three point sextant fixes and were run on ranges. Except, a line was run around the lake following as close to shore as possible without getting aground. The bottom along the shore was hard making it necessary to run in $1\frac{1}{2}$ to 2 feet of water. From this along-shore line to the low water line is a gradual slope. In several cases a line was taken to the low water line by wading. This is a slow and tedious method and was not used where the alongshore sounding line was near the low water line. The spoil banks at the northern end of the lake were too shoal to sound with the skiff; therefore, they were developed by wading. A single line was run in the ebb tide channel in the narrow section of the river that extends to the southward of the lake. The shoreline was not available for this section of the river at the time of the survey; therefore, the line was run only as far as sextant fixes were available.

CHANNELS

The entrance channel at the northern extremity of the lake follows the middle of the river to a narrow dredged cut with spoil banks on either side. Along the edge of this cut it shoals very rapidly, therefore, 2 to 4 feet difference in depth will be noted between sounding lines that run very near each other. The controlling depth in this section is 4 feet at M.S.L.. The depth on the spoil banks is 0 to 2 feet. The eastern side of the northern end of the dredged cut is marked by the remains of an old beacon that bears 2 feet at M.S.L. The lake is very flat in the middle with a depth of $6\frac{1}{2}$ feet. In the middle the bottom is soft and along shore the bottom is hard sand. The shores are generally flat sandy land. The lake is practically free of hyacinth.

The river enters the southeastern extremity of the lake. The entrance is very narrow with a controlling depth of $1\frac{1}{8}$ feet over the bar. The river south of here is generally crooked and narrow with 2 feet or greater depth.

Underhill Slough, at the northeastern extremity of the lake, and Gopher Slough, 1 mile north of the southern extremity of the lake are of no navigational value. Over the bars of each, there is a depth of about $\frac{1}{2}$ foot at mean sea level.

GEOGRAPHIC NAMES

A report on geographic names in this locality was submitted by the air photo party at Palatka, Florida.

DISCREPANCIES

No discrepancies are known to exist on this sheet.

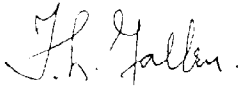
DANGERS

No dangers are known to exist on this sheet.

NOTE

The hydrography on this sheet was executed by Lieut.(j.g.) E. B. Brown, Jr. Mr. Brown was detached from this party before the smooth copy of this report was written and the report is, therefore, transmitted without his signature.

Approved by



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

H6435

STATISTICS

Date	Day	Statute Miles	Soundings	Positions
March 21	a	12.6	768	110
22	b	36.4	1335	209
23	c	32.4	1187	227
24	d	26.6	923	169
27	e	30.5	1058	178
28	f	24.2	927	206
29	g	<u>1.0</u>	<u>175</u>	<u>86</u>
		163.7	6373	1185

Smooth Sheet, Field No. 61

Registry no. H-6435

Prepared in office December 21, 1939.

Projection on ruling machine by S. Kass.

Shore line transferred in projector by L. V. Evans from T-5617 and T-5691.

Shore line checked by R. E. Elkins.

Sent to field with shore line in pencil.

The Air photographic surveys T-5617 and T-5691 show no hydrographic or topographic signals along the shore.

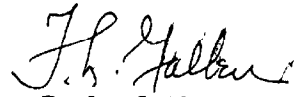
Triangulation stations not plotted in office.

Please make this a part of the descriptive report for Sheet No. 61. H-6435

Account of the Graphic Control sheets being damaged by water and fire the Topographic signals were transferred to the sheet from tracings of the Graphic Control sheets that were made ~~XXXXXXXXXXXX~~ for the Palatka Air Photo office previous to the damage of the GC sheets.

N-6435

Smooth sheet No. 61, was plotted under the immediate supervision of the Chief of Party. The sheet and records have been inspected and are approved.



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

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. **HC435**

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

Number of positions on sheet	.1185
Number of positions checked	.120
Number of positions revised	...1
Number of soundings recorded	.6373
Number of soundings revised	...7
Number of soundings erroneously spaced0
Number of signals erroneously plotted or transferred0

Date: *April 17, 1940*

Verification by *J. W. Vonasek*

Review by *Harold W Murray*

Time: *58¼ hrs.*

Time: *3½ hrs.*

HYDROGRAPHIC SURVEY NO. H6435

Smooth Sheet Yes

Boat Sheet Yes

Records; Sounding 4 Vols., Wire Drag Vols., Bomb Vols.

Descriptive Report Yes

Title Sheet Yes

List of Signals Yes

Landmarks for Charts (Form 567) No

Statistics Yes

Approved by Chief of Party Yes

Recoverable Station Cards (Form 524) No

Special Chart for Lighthouse Service No
(Circular Nov.30, 1933)

Hydrography: Total Days 7; Last Date Mar 29, 1939

Remarks _____

Remarks

Decisions

1		287 810
2		U.S.G.B
3		287 810
4		287 810
5	From T-5691 46.1' 04.3'	287 810
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GEOGRAPHIC NAMES
Survey No. **H6435**

Name on Survey	Source										
	A	B	C	D	E	F	G	H	K		
<u>Lake Harney</u>											1
<u>St. Johns River</u>											2
<u>Underhill Slough</u>											3
<u>Gopher Slough</u>											4
<u>Duck Slough</u>											5
											6
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Names underlined in red approved
by L. Heck on 4/23/40

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
 DESCRIPTIVE REPORT
~~PHOTOSTAT OF~~

No. H **H6435**
~~XXXX~~

{ received Mar 9, 1940
 registered Mar. 29, 1940
 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	✓	HBC	Pages 1 & 2
26			
30			
40			
62			
63			
82			
83			
88			
90			

RETURN TO

82	T.B. Reed
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✓ 9230e

RCC
HCC

TIDE NOTE FOR HYDROGRAPHIC SHEET

April 1, 1940

Division of Hydrography and Topography:

✓ Division of Charts: Attention: Mr. H. R. Edmonston

Plane of reference approved in
4 volumes of sounding records for

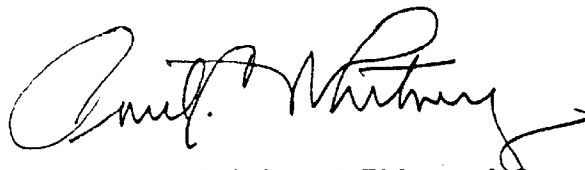
HYDROGRAPHIC SHEET 6435

Locality Lake Harney, St. Johns River, Florida.

Chief of Party: F. L. Callen in 1939
Plane of reference is mean low water reading
2.5 ft. on tide staff at Lake Harney Outlet
4.8 ft. below B. M. 1

There is no periodic tide in this area. The plane of reference is average water level during the period of the lower lake levels 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.

Verifier's Report of Hydrographic Survey H-6435

Verified and Inked by J. W. Vonasek

April 17, 1940

Depth curves were satisfactory. Low water curve could not be completely drawn due to insufficient soundings.

The sounding line crossings were satisfactory.

Only one hydrographic sheet is adjacent to this sheet. Junction with it was satisfactory. The overlap was not transferred because the adjacent sheet was not yet verified.

Condition of sounding records was satisfactory.

The protracting and the field plotting of soundings was satisfactory.

Authorization for triangulation stations and topographic stations is included in the Descriptive Report.

Respectfully Submitted
Joseph W. Vonasek

DIVISION OF CHARTS

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 6435 (1939) FIELD NO. 61.

Florida, St. Johns River, Lake Harney
Surveyed in March 1939, Scale 1:10,000
Instructions dated October 20, 1938 (MIKAWA)

Soundings:
Hand Lead and
Pole Soundings.

Control:
Three point fixes on shore signals.

Chief of Party - F. L. Gallen.
Surveyed by - E. B. Brown, Jr.
Protracted by - H. J. Bozzo.
Soundings plotted by - H. J. Bozzo.
Verified and inked by - J. W. Vonasek.
Reviewed by - Harold W. Murray.
Inspected by - H. R. Edmonston.

1. Shoreline and Signals.

- a. The shoreline originates with air photographic surveys Nos. T-5617 and T-5691, which have not yet been reviewed. The transfer of the low water line from these sheets will be accomplished when they have been completed. *Accomplished 1/30/41 BJA.*
- b. The authority for the topographic signals is given in the Descriptive Report, page 1.

Hydrographic Signals VOW and DAY at the north end of the survey originate with information contained in the records of H-6434 (1939).

2. Sounding Line Crossings.

Agreement of sounding line crossings is excellent.

3. Depth Curves.

Within the limits of the survey the usual depth curves may be satisfactorily drawn.

4. Junctions with Contemporary Surveys.

- a. The junction on the north with H-6434 (1939) will be considered in the review of that survey.
- b. There is no contemporary work to the southward of the present survey in St. Johns River. A single line of soundings from T-1512 (1883) on a scale

of 1:80,000, however, covers this area and is in fair agreement with the present survey.

5. Comparison with Prior Surveys.

T-1512 (1883), scale 1:80,000.

This reconnaissance survey contains about 60 soundings which cover the entire area of the present survey. The plane of reference to which the soundings are referred, is not indicated on the smooth sheet. These soundings, however, as charted on obsolete Chart 458 are unchanged in depth and are referenced to the plane of mean low water. The soundings on this survey (T-1512) vary from 5 to 12 feet and are generally deeper than those on the present survey (H-6435) which in the main portions of the lake do not exceed 7 feet. The present survey supersedes this survey.

6. Comparison with Chart 509 (New Print dated Nov. 27, 1939).

a. Hydrography.

The few charted soundings shown at the north of Lake Harney originate with miscellaneous sources. Most of these soundings are from blue print 12606 of 1907-08. They are in fair agreement with the present survey and should be superseded in future charting.

b. Controlling Depths.

A note on the chart states that the controlling depth in St. Johns River from Sanford to Lake Harney is 3 feet as of November 1939. This information is subsequent to the present survey information which within the area covered shows a controlling depth of 4 feet.

7. Condition of Survey.

- a. The sounding records are neat and legible and conform to the requirements of the Hydrographic Manual.
- b. The protracting and plotting is satisfactory.
- c. The Descriptive Report is clear and satisfactorily covers all matters of importance.

8. Compliance with Instructions for the Project.

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

9. Additional Field Work Recommended.

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

10. Superseded Surveys.

T-1512 (1883) in part.

Examined and approved:



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



Chief, Division of Charts.



Chief, Section of Field Work.



Chief, Division of H. & T.

Applied to Chart Comp 688. May 10, 1940. H. E. Ewen