6433

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

DESCRIPTIVE REPORT

~~Topographic~~
Hydrographic } *Sheet No.* H-6433

State Florida

LOCALITY

St. Johns River
Boden to Mullet Lake
~~Lemon Bluff~~

1939

CHIEF OF PARTY

F. L. Callen

U. S. GOVERNMENT PRINTING OFFICE

6433

Form 537
Ed. Dec. 1930

REG. NO.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

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. 59 H6433

REGISTER NO. H-6433

State Florida

General locality St. Johns River

Locality ~~Lemon Bluff~~ Boden to Mullet Lake

Scale 1:5,000 Date of survey February, 1939

Vessel Launch MIKANE

Chief of Party F. L. Gallen

Surveyed by Edward B. Brown, Jr.

Protracted by Henry J. Bozzo

Soundings penciled by Henry J. Bozzo

Soundings in ~~fathoms~~-feet

Plane of reference M.S.L.

Subdivision of wire dragged areas by

Inked by Joseph W. Dvorak

Verified by Joseph W. Dvorak

Instructions dated (Supplemental) October 20, 1938

Remarks:

U. S. GOVERNMENT PRINTING OFFICE

DESCRIPTIVE REPORT

To Accompany Hydrographic Sheet 59. H-6433

INSTRUCTIONS - (Supplemental) October 20, 1938. Project HT-212

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. This U.S.E.D. scheme was connected to a first order U.S.C.& G.S. scheme, therefore the U.S.E.D. stations are computed on the North American 1927 datum. The stations shown on the sheet in green were located by photographic methods by the air photographic party in Palatka, These air photographic stations along with the triangulation stations were used as control from which additional hydrographic stations were located. These hydrographic signals were, in general, located by sextant fixes or rounds of sextant angles taken at the signal on control stations. Some additional sextant cuts were taken on the hydrographic signals from the control stations. Fixes and cuts were recorded in sounding volume No. 1. The hydrographic signals on this sheet were located by Lieutenant (j.g.) Edmund L. Jones.

The soundings were taken with a hand leadline from a skiff propelled by a 9 H.P. outboard motor. In the shoal sloughs the soundings were taken with a pole graduated in feet and half feet. Except in the broad sloughs, where the lines were run on ranges, the lines were run parallel to the general trend of the shore lines. In general, a line was run as close as possible to each shore and several lines spaced equally between the alongshore lines. Where additional development was considered necessary and in the wide reaches, the lines were split. Where shoal flats extended offshore, detached soundings were taken to show the limits of the flats. The lines were run as far as possible in the sloughs. When the bottom was soft the boat would run a short distance in 1 foot of water, but when the bottom was hard the boat required at least 1½ feet of water. Some areas were not sounded because they were blocked by hyacinth; however, in most cases, these areas were too shoal to sound. Where notes referred to dead hyacinth the water was generally less than 1 foot deep. The hyacinth float on the surface of the water and when they get aground they usually die. The tuckahoes referred to in this area are broad leafed plants, extending 2 to 3 feet above the surface of the water and growing with roots secured to the bottom in shoal areas. They have a yellow cup shaped flower about 1½ inches in diameter that project a little above the surface of the water.

DISCREPANCIES

The shoreline in many places has been found in error, as strong fixes plot on shore. Positions 23, 86 and 87a plot on shore. Positions 90, 91, 92, 132, 150, and 152b did not plot in center of creeks

See Rev. Par. 1a

as noted in the records and thus were spotted in center. It will be noted on the boat sheet that the shoreline has been corrected at all signals visited by the hydrographic party. The shoreline in the vicinity of Lat. 28 49.5, Long. 81 07.5 has been corrected by sextant angles and sextometer distances and shown on smooth sheet in blue (positions 1a - 8a). changed to black in office

DANGERS

The bottom of the river all along both banks is foul with stumps and logs. The snags are noted on the smooth sheet.

CHANNELS

Four feet is the controlling depth in the section of the river covered by this sheet.

GEOGRAPHIC NAMES

All data on geographic names were turned over to the air photographic party at Palatka. That party will submit a report on geographic names in this vicinity.

NOTE:

The hydrography on this sheet was executed by Lieutenant (j.g.) Edward B. Brown, Jr. This report was not smooth copied until Mr. Brown had been transferred from this party and is therefore submitted without his signature.

Approved

F. L. Gallen.

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

STATISTICS

Date	Day	Statute Miles	Soundings	Positions
March 14	a	18.2	1117	181
15	b	6.7	398	83
16	c	5.4	349	75
		30.3	1864	339

Smooth sheet No. H-6433 was plotted under the immediate supervision of the Chief of Party. The sheet and records have been inspected by the Chief of Party and are approved.

F. L. Gallen.

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

HYDROGRAPHIC SURVEY NO. 6433

Smooth Sheet One

Boat Sheet One

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

Descriptive Report Yes

Title Sheet Yes

List of Signals ~~No~~ 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 (Circular Nov.30, 1933) No

Hydrography: Total Days 3 ; Last Date Mar. 16, 1939

Remarks

3776

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. .6433..

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

Number of positions on sheet	339
Number of positions checked	32
Number of positions revised	2
Number of soundings recorded	1864
Number of soundings revised	2
Number of soundings erroneously spaced	0
Number of signals erroneously plotted or transferred	0

Date: 4/26/40

Verification Corrections by H. W. M.

Verification by Joseph M. Vonasek Time: 1 hr. 35 hr.

Review by Harold W. Murray Time: 4½ hrs.

2629

	Remarks	Decisions
1		USGB. 28884
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M 234		

GEOGRAPHIC NAMES

Survey No. H-6433

Name on Survey	A, On Chart No.	B, On previous survey No.	C, On U. S. quadrangle Maps	D From local information	E On local Maps	F P. O. Guide or Map	G Rand McNally Atlas	H U. S. Light List	K	
St. Johns River										1
Boden										2
Mullet Lake										3
										4
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Names underlined in red approved by L. Heck on 5/4/40

M 234 VR

FORM M-238

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
DESCRIPTIVE REPORT
~~PHOTOSTATIC~~ } No. H-6433
~~No.~~

received Apr. 2, 1940
registered April 2, 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
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RETURN TO

82	Lieut. Reed

✓ JOSR

R.a.e.
mc2

Form 712
DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
Rev. June 1937

TIDE NOTE FOR HYDROGRAPHIC SHEET

April 6, 1940

Division of Hydrography and Topography:

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

Plane of reference approved in
2 volumes of sounding records for

HYDROGRAPHIC SHEET 6433

Locality Boden to Mullet Lake, St. Johns River, Florida

Chief of Party: F. L. Gallen 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 lower lake levels and corresponds approximately to the sea-level datum of the Leyel-net.

Condition of records satisfactory except as noted below:

Chief, Division of Tides and Currents.

U. S. GOVERNMENT PRINTING OFFICE 154327

Verifier's Report of Hydrographic Survey No. H6433

Verified and Inked by Joseph W. Vonarek

April 26, 1940

Depth curves were satisfactory. There is not enough information to completely show the low water line.

Sounding line crossings were satisfactory.

Junctions with contemporary surveys H-6434 were satisfactory.

Conditions of sounding records was satisfactory.

The protracting and field plotting of soundings was satisfactory.

By recommendation of the Asst. Chief. Field Records Section, the shoreline at several points has been slightly altered to allow plotting of positions and soundings and to agree with the shoreline as determined by positions 12 - 32, mentioned in the Descriptive Report).

Respectfully submitted,

Joseph W. Vonarek

DIVISION OF CHARTS

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 6433 (1939) FIELD NO. 59

Florida, St. Johns River, Boden to Mullet Lake
Surveyed in February 1939, Scale 1:5,000
Instructions dated October 20, 1938 (MIKAWE)

Soundings:
Hand Lead and Pole.

Control:
Three point fixes on shore signals.

Chief of Party - F. L. Gallen.
Surveyed by - Edward B. Brown, Jr.
Protracted by - Henry J. Bozzo.
Soundings plotted by - Henry 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 and signals originate with topographic maps T-5689 and T-5690 of 1935-39. Discrepancies in shoreline (see descriptive report pages 1 and 2) were noted in the vicinity of lat. 28°49.3', long. 81°07.5', and lat. 28°47.9' long. 81°07.9' and were adjusted on the hydrographic sheet. Discrepancies noted in lat. 28°48.25', long. 81°07.65', and lat. 28°48.45', long. 81°07.4' were not considered of sufficient importance to warrant adjustment.

b. Signals in green originate with topographic maps T-5689 and T-5690 of 1935-39. Signals in blue originate with sextant cuts recorded in the sounding volumes.

2. Sounding Line Crossings.

Agreement of such cross lines as result from the work is satisfactory.

3. Depth Curves.

The usual depth curves may be satisfactorily drawn including portions of the low water curve.

4. Junctions with Contemporary Surveys.

a. The junction on the east with H-6434 (1939) is satisfactory.

b. The junction on the west with H-6432 (1939) will be considered in the review of that sheet.

5. Comparison with Prior Surveys.

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

This is a reconnaissance survey. It contains about 20 soundings which are in poor agreement with the present survey depths. The present survey supersedes this 1883 survey.

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

a. Hydrography.

(1) Hydrography shown on the chart originates with blue print 14004 of 1907-08 on a scale of 1:40,000. The hydrography is limited to a single line of soundings and an adequate comparison cannot be made with the larger scale present survey. The present survey supersedes this blue print.

(2) Blue prints 28954, 28955 and 28956 of 1935 on a scale of 1:6,000 cover the present survey and have not been applied to the chart. The development consists of a single line of soundings and is in fair agreement with the closer developed present survey. The present survey supersedes these blue prints.

b. Controlling depth.

A note on the chart states that the controlling depth from Sanford to Lake Harney was 3 feet as of Nov. 1939. The present survey 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 descriptive report is clear and satisfactorily covers all matters of importance.

c. Field protracting and plotting were excellent.

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:

Thos. 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 7, 1940 H. E. Lucas Lucas