

6194 (RECONNAISSANCE SURVEY)

U. S. COAST & GEODETIC SURVEY  
LIBRARY AND ARCHIVES  
APR 23 1937  
Acc. No. \_\_\_\_\_

6194 (RECONNAISSANCE SURVEY)

Form 504  
Rev. Dec. 1933  
DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY  
R. S. PATTON, DIRECTOR

## DESCRIPTIVE REPORT

~~Topographic~~ } Sheet No. 35  
Hydrographic }

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State ..... Florida .....

LOCALITY

Dunns Creek

..... St. Johns River to Crescent Lake. ....

---

1935  
1937

CHIEF OF PARTY

Hubert A. Paton

CP

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

U. S. COAST & GEODETIC SURVEY  
LIBRARY AND ARCHIVES  
APR 28 1937  
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. 35

H6194 (Reconnaissance Survey)

REGISTER NO.

State FLORIDA

General locality DUNNS CREEK

Locality ST. JOHNS RIVER TO CRESCENT LAKE

Scale: 5000 Date of survey July 1935 & February 1937

Vessel Party No. 26

Chief of Party Hubert A. Paton

Surveyed by O. E. Fang, and G. W. Lovesee.

Protracted by No smooth sheet prepared

Soundings penciled by

Soundings in ~~fathoms~~ feet

Plane of reference <sup>within 1/2 ft of</sup> Mean Low Water for Buffalo Tide Station  
1/8 foot below mean Lake Level for Shell Bluff

Subdivision of wire dragged areas by

Inked by

Verified by

Instructions dated Nov. 17 and Dec. 5, 1933, 19

Remarks: Reconnaissance survey

DESCRIPTIVE REPORT

to accompany

SHEET NO. 35

DUNNS CREEK, FLORIDA

ST. JOHNS RIVER TO CRESCENT LAKE

PARTY NO. 26 -- PROJECT NO. H.T.168

April 26, 1937

INSTRUCTIONS:

The work on this sheet was done in accordance with instructions dated November 17 and December 5, 1933.

LIMITS & JUNCTIONS:

This sheet consists of a survey of Dunns Creek from a junction with Sheet No. 28 near the bridge on Highway No. 17 about one mile from the St. Johns River to the north end of Crescent Lake where it makes a junction with the survey on Sheet No. 36.

DATUM:

North American, 1927, Datum was used for this sheet.

SURVEY METHODS:

All soundings were taken with a hand lead weighing about eight pounds, from a launch underway. At the time the hydrographic surveys was in progress in this area, the photo-compilation sheets had not been started and it was feared that it would be impossible to return and survey this creek at such time when accurate shoreline would be available. The creek is narrow and winding and cypress swamps line both shores. Control stations had been established at both ends of the creek and at only two places along the seven miles of its course. It was decided that it would not be economically sound to establish graphic control sheets for this stream and since it was only about 200 meters wide, it was decided to locate the position of the sounding lines by estimating the distance off shore and by noting the exact time the boat crossed ranges composed of tangents to the many wooded points at the bends of the stream.

Ensign Price, Chief of the Photo Compilation party, was requested to furnish a preliminary shoreline, by tracing from the photos without any adjustment. This shoreline was found to be quite accurate and served its purpose admirably.

First a system of five lines were run through the creek. At points where shoals were indicated, a careful search was made for the least depth and this sounding spotted on the boat sheet. Some of these shoal areas could not be developed by the original party, due to it being disbanded before the work could be completed, but in 1937, a party from the Launch

MIKAWA, Lieut. Comdr. L. D. Graham, Commanding, investigated the remaining spots while using our boat sheet for navigation purposes. Their work is recorded in Volume No. 2, and is shown in the boat sheet, using day letter blue A.

CHANNELS:

The boat sheet having been forwarded to the Washington Office, it is not now available for a complete discussion of the channel in this creek, but Coast Pilot Notes were forwarded about a year ago and these contain all the necessary information.

CURRENTS:

Tidal currents are found in this creek in diminishing force until they disappear at Crescent Lake.

DANGERS:

The principal dangers are the shoals found in mid-stream and extending off some of the points. Close inshore many snags will be encountered.

COMPARISON WITH PREVIOUS SURVEYS.:

At the time this creek was surveyed, it was believed that there had been no previous surveys. Recently, it has been learned that the U. S. Engineers surveyed this stream 25 years ago and copies of their results will probably be found on file in our office. Since the Boat Sheet has been forwarded to the office it is not possible for the writer to make a detailed comparison with the original surveys but a casual inspection made previously indicated that there had been no very radical changes in the stream in the last quarter of a century.

GEOGRAPHIC NAMES:

The following names were to have been placed on the smooth sheet and if they are not shown on the Boat Sheet, they should be added by the reviewer.

Horse Landing. Shown on Chart No. 508 and on U. S. E. Surveys. Formerly known as Sutherlands Still and is so indicated on Geological Survey Maps. A turpentine still is at this point at the present time but the owner is not known. There is another Horse Landing about six miles west of here on the St. Johns River, and both names are in common use. It is recommended that no change be made on the charts.

Monroe Landing. In Longitude  $81^{\circ}35'$ , on the north side of the creek, where a rude dirt trail leads down to the shore, shown on a Bond Trustee Map of this area. The name is not shown on any other maps and is not in common use, but there are no other names in use for this landing and it is recommended that it be adopted.

Piney Bluff Landing. Shown on Geological Survey maps and U. S. E. surveys. On some county maps it is shown as Pine Bluff, but this name is not in common use and the former term should be adopted.

Moccasin Landing. Shown on all other maps as Crosby's Landing, but spelled Crosby on an old county map. This name is not in common use and the fishermen in the vicinity now call it Moccasin Landing and this term is recommended.

Dunns Creek. All sources are in agreement on this name.

MISCELLANEOUS:

A smooth sheet of this survey was not prepared. See Director's Letter, Ref. No. 80-DRM, dated April 24, 1937. It is believed that the method used in this survey has resulted in a fairly accurate representation of existing conditions. The Boat Sheet and the Sounding Records have been examined by me and are approved.

Respectfully Submitted,



Hubert A. Paton,  
Lieut. C. & G. S.  
Chief of Party.

STATISTICS:

Miles of sounding lines, statute,	42.5
Total number of positions	459
Total number of soundings	3472
Area in square statute miles	1

POST-OFFICE ADDRESS: Palatka, Florida, P. O. Box No. 452.

TELEGRAPH ADDRESS:

EXPRESS ADDRESS:

*EKG*

DEPARTMENT OF COMMERCE DIVISION OF CHARTS

U. S. COAST AND GEODETIC SURVEY

Palatka, Florida.

ANSWERED

APR 24 1937

March 16, 1937.

To: The Director,  
U. S. Coast and Geodetic Survey,  
Washington, D. C.

From: Chief of Party,  
Field Party No. 26.

Subject: Survey of Dunns Creek.

Under separate cover there is being forwarded to the office, the Boat Sheet No. 35 - a survey of Dunns Creek made in 1935. The shoreline shown on this sheet was traced from aerial photographs without radial line adjustment. The positions on the hydrographic lines were spotted on the boat sheet by estimation of distances from the details of this shoreline.

The photo-compilation sheets for this creek have now been completed to the point where a more accurate shoreline can be furnished the hydrographic party if desired.

It has been recently discovered that this creek had been surveyed in 1912 by the U. S. Engineers. One copy, in three sheets, is forwarded in order that a comparison of the two surveys may be made. It is thought that the office might wish to have the creek resurveyed by the party on the Launch MIKAWAY, Lieut. Comdr. L. D. Graham, Commanding, using the more accurate shoreline now available. Dunns Creek is the only entrance to Lake Crescent and is used by both pleasure and commercial craft. Its shores are lined with cypress swamp and due to the scarcity of control and the difficulty in plane table traversing, it would hardly be feasible to locate graphic-control signals for the location of hydrographic signals. However it would probably be possible to spot a sufficient number of signals directly on the photographs and to determine their position by the radial line methods.

It will probably not be possible to plot up this hydrographic survey this year, as all efforts are now being put on the photo-compilation sheets. Kindly return the U. S. Engineer sheets with the Boat Sheet, for the use of this party. It is understood that a copy was given this bureau and may be on file in the office.

*Insert in BR 35  
of Paton's*

*Hubert A. Paton*  
Hubert A. Paton,  
Lieut. C. & G. S.  
Chief of Party.

*see 6126 review*

LETTER TRANSMITTING FIELD RECORDS

REFER TO NO.

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

Palatka, Florida

March 16, 1937, 19

To: The Director, U. S. Coast and Geodetic Survey, Washington, D. C.

From: H. A. Paton, Lieut., C. and G. Survey, Chief of Party.

Subject: Records.

The following-named ~~records, computations~~, sheets, packed in one package , , were forwarded to you on this date , 19 , by ~~ordinary~~, registered, mail, ~~express~~ (Government bill of lading No. ).

- ✓ 1 Boat Sheet, No. 35, Survey of Dunns Creek, Florida, 1935.
- ✓ 5 prints, of U. S. Engrs. survey of Dunns Creek, 1912.

Forwarded for preliminary review. To be returned to field party.

*Package #166*

ACKNOWLEDGED  
BY SECTION OF  
LIBRARY AND  
ARZEVES  
MAR 23 1937

*Hubert A. Paton*

Hubert A. Paton, Lieut. C. and G. Survey, Chief of Party.

Received the above:

Chief Clerk,  
Coast and Geodetic Survey.

This letter and one copy should be sent to the office. The copy will then be returned as a receipt.

80-DRM

April 24, 1937.

To: Lieutenant Hubert A. Paton,  
U. S. Coast and Geodetic Survey,  
P. O. Box 452,  
Palatka, Florida.

From: The Director,  
U. S. Coast and Geodetic Survey.

Subject: Survey of Dunns Creek.

Referring to your letter of March 16, 1937 relative to your 1935 survey of Dunns Creek, boat sheet field No. 55 will be retained in the office.

Since the field work on this survey was done prior to compiling the air photographs of the area, the hydrography necessarily lacks control and therefore can not be considered a standard survey. The work will be registered as reconnaissance and apparently nothing is to be gained by replotting the work on a smooth sheet. You will please therefore forward the sounding volumes and submit a descriptive report covering the sheet. If you feel that the method used, namely, control by estimated distances off the shoreline, has resulted in a fairly accurate representation of existing conditions you should so state in the report.

Your forethought in presenting this problem for an office decision rather than expending time in smooth plotting is commended.

The three U. S. Engineers prints of their 1912 survey are returned under separate cover.

(Signed) J. H. HAWLEY

Copy to H&T

Acting Director.

KTA  
9  
K



Field Records Section (Charts).

HYDROGRAPHIC SHEET NO. **H6194** (Reconnaissance Survey)

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

Number of positions on sheet	.....
Number of positions checked	.....
Number of positions revised	.....
Number of soundings recorded	.....
Number of soundings revised	.....
Number of signals erroneously plotted or transferred	.....

Date:

Verification by

Time:

Review by

Time:

HYDROGRAPHIC SURVEY NO. H6194 (Reconnaissance Survey)

Smooth Sheet None Made

Boat Sheet Yes

Sounding Records 2 Vols. \_\_\_\_\_

Descriptive Report Yes

Title Sheet Yes

List of Signals None

Landmarks for Charts (Form 567) None

Statistics Yes

Approved by Chief of Party None

Recoverable Station Cards (Form 524) None

Special Chart for Lighthouse Service None  
(Circular Nov. 30, 1933)

Remarks \_\_\_\_\_

HYDROGRAPHY

Total Days 3

Last Date July 29, 1935

Remarks

Decisions

	Remarks	Decisions
1	<i>Submitted to USGB 5/7/37</i>	<i>USGB decision</i>
2		<i>See H-6132</i>
3		
4	<i>submitted to USGB 5/7/37</i>	
5		<i>See H-6132</i>
6	<i>Not shown on sheet Decision held for Not in common use. Air-photo Comp.</i>	<i>See D.R. pg. 2</i>
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GEOGRAPHIC NAMES  
 Survey No. **H6194**  
 (Reconnaissance)  
 Survey

Name on Survey	On Chart No. 508		On previous survey No. None		From local information	On local Maps	P. O. Guide or Map B.P. 14 553-6	Rand McNally Atlas	U. S. Light List	K Inside Route Plot	
	A.	B.	C.	D.							
<u>Sutherlands</u> still <del>Horse Landing</del>	✓		<u>sutherlands</u> still	D.R. pg. 2			✓			✓	1
<u>Dunns Creek</u>	✓ appd		✓				✓			✓	2
<u>Piney Bluff Landing</u>			✓				<u>Reagans</u> place			✓	3
<u>Moccasin Landing</u>			<u>Crosbys</u> Lndg.	D.R. pg. 3							4
<u>Crescent Lake</u>	✓ appd		✓				✓			✓	5
<u>Monroe Landing</u>											6
											7
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Names underlined in red approved  
 by RHE on 5/7/37

# MEMORANDUM

## IMMEDIATE ATTENTION

SURVEY DESCRIPTIVE REPORT <del>PHOTOSTAT OF</del>	}	RECONNAISSANCE SURVEY No. H-6194 <del>No. T</del>	}	received Mar. 18, 1937 registered May 7, 1937 verified reviewed approved
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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			
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83			
88			
90			

RETURN TO

82	C. K. Green
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CS-5-13-37

LCE

Form 718  
DEPARTMENT OF COMMERCE  
COAST AND GEODETIC SURVEY  
Ed. Feb. 1935

## TIDE NOTE FOR HYDROGRAPHIC SHEET

May 13, 1937.

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 6194


Locality Dunns Creek, St. Johns River to Crescent Lake, Florida

Chief of Party: H. A. Paton in 1935 and 1937  
Plane of reference is mean low water, reading  
2.9 ft. on tide staff at Buffalo Bluff  
10.7 ft. below B.M. 1  
2.0 ft. on tide staff at Shell Bluff\*  
5.0 ft. below B.M. 1

Height of mean high water above <sup>Plane</sup> ~~plane~~ of reference is 1.0 feet  
at Buffalo Bluff.

\* Since there is practically no periodic tide in Crescent Lake,  
the low water datum at Shell Bluff is taken as a plane  $\frac{1}{2}$  foot below  
mean lake level.

Condition of records satisfactory except as noted below:

  
Chief, Division of Tides and Currents.

Verifiers Memo for H-6194

This survey appears in its original form. The shore line having been taken directly from the air photographs, not from a map drawing. Thus, there undoubtedly will be an adjustment required in the shore line.

The control depends almost entirely on the topographic features.

The soundings were plotted without any tide correction being applied. The maximum error is however only  $\frac{1}{2}$  ft.

Approximately 40% of the soundings are actually  $\frac{1}{2}$  ft. to deep and 12% are  $\frac{1}{2}$  ft. to shoal.

A comparison with H-6132 at the junction shows this survey (H-6194) to be in general about 1 ft. to deep. This difference would probably disappear if the soundings were corrected for tide reduction.

This survey seems to adequately cover  
the area and would probably be of great  
value if the soundings were plotted in  
their relative positions on a sheet with  
the topography taken from the Air photographic  
survey.

Respectfully submitted,

William R. Jackson

Oct. 30, 1937



Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 6194 (1935 & 1937) FIELD NO. 35  
(Reconnaissance survey)

Dunns Creek from St. Johns River to Crescent Lake, Florida.  
Surveyed in 1935 & 1937, Scale 1:5,000  
Instructions dated Nov. 17 and Dec. 5, 1933.(H.A.Paton)

Hand Lead Soundings.

3 Point fixes on shore signals.  
Spotting on boat sheet in re-  
lation to shoreline.

Chief of Party - H. A. Paton.  
Surveyed by - O. E. Fang and G. W. Lovesee.  
Verified by - W. R. Jackson.

Because this survey is classed as a reconnaissance survey and the boat sheet is accepted as the final record the regular form of review has not been prepared.

1. Accuracy of Control.

With the exception of about a half mile of the lower end of Dunns Creek and a small stretch at the upper end the major portion of the hydrographic control is dependent upon spottings on the boat sheet from estimated distances from the shoreline and making use of the exact time the boat crossed ranges composed of tangents to the wooded points at the bends of the stream. The shoreline on the boat sheet was an unadjusted one, having been traced from the photographs without a radial line plot. This type of control, for even so narrow a stream, is considered too weak to be acceptable for a standard survey. The work has therefore been classed as a Reconnaissance Survey.

2. Smooth Plotting.

Inasmuch as the boats' positions are referenced to spottings on the boat sheet and not to identifiable features on shore, a smooth plotting of the work using the final adjusted shoreline (available but not yet in the office) would add very little to the accuracy of the work. The boat sheet being in usable condition it was not considered advisable at this time to smooth plot the work.

3. Office Verification.

No systematic verification was made in the office, the soundings being accepted as plotted and inked by the field party. The soundings of the 1935 work are plotted without tidal corrections. The few soundings of the 1937 work (blue position numbers) are plotted with corrections applied. Because of the small range of tide in this creek the error in no case exceeds one-half foot.

4. Future Surveys.

There are no previous surveys by this Bureau covering Dunn's Creek. The western portion of the creek which is shown on Chart 508 (new print date Nov. 12, 1936) is charted from U. S. Engineers' survey of 1912 (blueprint 14553 to 14556 inclusive). These blueprints are on a slightly larger scale than the present survey but contain no grid coordinates. A comparison of the depths on the two surveys shows that shoalings and deepenings have taken place in various portions of the creek, the most outstanding change being the elimination of the 6 foot shoal in approximate latitude  $29^{\circ} 32.85'$ , long.  $81^{\circ} 34.05'$ . The present survey shows depths of 10 to 27 feet here.

The present survey is adequate for small scale charting of this creek and the hydrography can be adjusted to the final compiled shoreline. However, if in the future commercial considerations should require a large scale chart of this creek then a re-survey of the area is recommended using such control at the upper and lower ends as may be economically established by plane table and supplemented by such additional points as may be identified on the photographs and radially plotted or spotted as a shoreline compilation in the ground.

5. Reviewed by A. L. Shalowitz, November 8, 1937.

Examined and approved:

C. K. Green, *C. K. Green*  
Chief, Section of Field Records.

*L. D. Robert*  
Chief, Division of Charts.

*J. R. Peacock*  
Chief, Section of Field Work.

*G. H. de*  
Chief, Division of H. & T.

Applied in part to Chart Comp. 687 Dec. 18, 1939, H. MacSwan

Applied to chart comp. 686. Jan. 11, 1940. R.A. MacSwan