5757

Form 504
Rev. Dec. 1933

DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY
R. S. PATTON, DIRECTOR

DESCRIPTIVE REPORT

Topographic / *Hydrographic* } *Sheet No.* 13

State Florida

LOCALITY

South Amelia River

~~and~~

~~Tributaries.~~

Jackson Creek to Back River

1935.

CHIEF OF PARTY

Hubert A. Paton

U.S. GOVERNMENT PRINTING OFFICE: 1934

Form 537
Ed. Dec., 1930

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. 13

REGISTER NO. 5757

State Florida

General locality South Amelia River ~~and Tributaries~~

Locality Jackson Creek to Back River

Scale 1:10,000 Date of survey Aug. 23, 1934, Mar. 4, 1935.

~~Vessel~~ Party No. 26

Chief of Party Hubert A. Paton

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

Protracted by O. E. Fang

Soundings penciled by O. E. Fang and M. K. Spencer

Soundings in ~~fathoms~~ feet

Plane of reference Mean Low Water

Subdivision of wire dragged areas by

Inked by

Verified by LEAsh

Instructions dated November 17 and December 5, 1933.

Remarks:

U. S. GOVERNMENT PRINTING OFFICE: 1931

DESCRIPTIVE REPORT
TO ACCOMPANY
SHEET NO. 13
SOUTH AMELIA RIVER, FLORIDA.
PARTY NO. 26 - PROJECT H. T. 168.

April 26, 1935.

INSTRUCTIONS:

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

LIMITS:

This sheet is a survey of the Intra Coastal Waterway along Amelia River, Kingsley Creek, and South Amelia River, extending from Latitude 30° 39' to Latitude 30° 32.8' and all tributary streams between these parallels. It covers Lanceford Creek, south of parallel 30° 32.8', Back River, and Nassau River from a mile above Nassauville to its junction with Back River near Latitude 30° 33'.

JUNCTIONS:

A junction is made with sheet 9 on the north, sheets 14 and 15 on the south. The limit of sheet 15 extends across the mouth of Christopher Creek with a sounding line following the west bank of the Nassau River to signal Dame. Another sounding line on sheet 15 follows the east bank of the Nassau River from signal Olo to signal Pup whence the limit extends to signal Dame.

DATUM:

"North American 1927" datum was used for this sheet. All the positions of triangulation control were obtained from geographic positions of 1927 datum and no correction applied except for Nassau Stack 1934 and Back 1934. These stations were computed from the line Brow 1933 - Nassau 1861 taken as a base. Brow 1933, Nassau 1861 were in turn based on the line Horseshoe 1853-Mt.Cornelia 1853. The following correction was applied to Nassau Stack and Back to reduce them to 1927 datum:

Latitude	+ 1.8 meters
Longitude	- 7.5 meters

These corrections were found by comparing the two values of some of the adjusted stations in the vicinity.

SIGNALS:

The topographic signals were transferred from the G. C. Sheets Q, R, and S. A few signals fell on two sheets and in this case a mean of their position was used. Topographic sheet S which covered Nassau and Back Rivers was on whatman paper.

Hydrographic signal Deb was located by sextant cuts.

SHORELINE:

Most of the shoreline for this sheet was obtained from the photo-topographic sheets compiled by Lieut. (j.g.) S. B. Grenell. The topographers rodded in short sections of shoreline at some of the triangulation stations and this was transferred to the smooth sheet. Except for the low bluffs at Amelia City, Bennett Point, and the west bank of Lanceford Creek, most of the shoreline consists of salt marsh with soft banks out to low water. The shallow basins at the head of Lanceford Creek, Soap Creek, Jackson Creek, Amelia River, and in the South Amelia River just south of the drawbridge over Kingsley Creek, are interspersed with small grassy islands which are continually changing in size and shape. Many of these islands do not show distinctly on the photographs and only portions of their outline were traced on the photo-topographic sheet.

The shoreline is missing in a few places. For instance, the bight at Latitude 30° 35.5, Longitude 81° 27.8, the head of Lanceford Creek near the Railroad Bridge, and Elwood Branch. These portions were requested from the photo-compilation party but were unavailable as they had forwarded the tracings to Washington.

SURVEY METHODS:

The usual three point fix method for determining position was used wherever possible. In some of the smaller streams which were beyond the limits of the G. C. Sheets the positions were determined by reference to the topographic features of the shoreline as determined by the photographs. In cases where this later method was used, the fix was marked S.B.S. (see boat sheet) in the record book. These positions were transferred to the smooth sheets by means of tracing paper and dividers.

Near Latitude 30° 35', Longitude 81° 28', the sand bar was developed by taking sextant fixes along the mean low water line and estimating the highest part of the bar at intervals along its length.

A reconnaissance was made up Lanceford Creek beyond the Railroad Trestle and Highway Bridge. There was no shoreline or control this far up the creek and the positions of these bridges were estimated. The positions of these two bridges were taken from the air photo compilation and the sounding lines adjusted. RPH

Row boats can pass about 100 yards above the highway bridge.

There is a small creek known locally as Elwood Branch which runs west and north from triangulation station Woods U.S.E., latitude 30° 36.5', longitude 81° 29.7' and which runs up to the Seaboard Airline Railway. There was no shoreline available and it was not considered important enough to extend control to cover it, as the depth is only minus 1.5 feet at mean low water as found by reconnaissance at extreme high tide. Formerly this creek joined the mud flats at latitude 30° 37.4', longitude 81° 30.3', north of the railroad, but the railroad fill has now blocked the passage.

Soundings were taken to the nearest half foot with a hand lead line, using an 8 pound lead. The sounding lines were run parallel to the center line of the streams except where the stream flowed through a shallow basin. In this case, parallel lines 100 meters apart were run, and the channels were developed by running lines from 20 - 40 meters apart parallel to the longitudinal axis of the channel. This development was considered adequate as the U. S. Engineers have surveyed the channels of the Intra Coastal Waterway from Fernandina to Mayport in 1933 and 1934.

CHANNELS:

The Intra Coastal Waterway has a controlling depth of 7 feet which is found at latitude 30° 37', longitude 81° 29', 100 yards southeast from Beacon #20. There is an alternate route from Amelia City through which 7 feet can be carried by taking the west branch of the South Amelia River at this point. However, there is a sand bar which extends across the mouth of this branch and makes entry difficult. This branch is unmarked by beacons, and although a trifle shorter, there is no advantage in taking it.

The channel in Kingsley Creek and the basin at the head of South Amelia River is very narrow and oyster bars border it closely on both sides. However, it is marked with numerous beacons which should be carefully followed.

Jackson Creek has a controlling depth of 10 feet which can be carried as far east as the point where the creek opens into a shallow basin. From this point, there is a channel which bears northeast through the basin. Three feet, at mean low water, can be carried up this Channel to the limits of the area surveyed on this sheet.

Harrison Creek has a controlling depth of minus one foot at mean low water. This depth is found near its northern entrance into the South Amelia River. By entering the creek from its southern mouth, one half foot at mean low water can be carried to the docks near the turn.

The Channel up Nassau River follows about 200 yards off the west bank for 5/8 of a mile from the southern tip of the island which separates Back and Nassau Rivers; then one should haul over toward the east point at the mouth of Alligator Creek and follow the north bank at a distance of about 200 yards to the dock at Nassauville. The Fletcher Wilder Dock has a depth of 13 feet at mean low water at its face. Above Nassauville, the west bank should be closely followed. The controlling depth of the river is 15 feet which is found at latitude 30° 33.4', longitude 81° 29.6', East Northeast of signal Olo.

Back River has a controlling depth of only 4 feet due to a shoal which makes out at latitude 30° 33.4', longitude 81° 30.5'. The channel then follows the north bank and passes north of the small island near the river's mouth. The channel turns abruptly south southwest into Nassau River crossing a shoal area at its mouth.

A depth of 8 feet can be carried through Alligator Creek from its confluence with the west branch of the South Amelia River to its junction with the Nassau River at Bennetts Point. Part of the creek flows through a shallow basin which is very shoal. The channel through this basin is unmarked except for sticks stuck in the mud by local fishermen. The channel through the basin is best navigated at low tide but in any case it is a dangerous venture for boats of more than moderate draft on account of shoals and numerous oyster bars on either side of the channel. There is an outlet from this basin at the north into the South Amelia River, but this is only navigable at high tide for light draft boats, the controlling depth being zero feet at mean low water.

DANGERS:

There are no dangers except for the numerous shoals and oyster bars which are characteristic of the region. The Intra Coastal Waterway through this region is well marked so as to avoid these dangers.

In the Nassau River at Nassauville, the currents forms an eddy with a whirlpool effect between S. S. Guffin's dock and the Fletcher Wilder Dock. Boats coming alongside these docks should proceed with caution.

CURRENTS:

The tide divides in the South Amelia River south of the drawbridge over Kingsley Creek about midway between beacons 17 and 22. The current flows south for 30 minutes after high water in Kingsley Creek and then ebbs north into Cumberland Sound.

COMPARISON WITH PREVIOUS SURVEYS:

The small grassy islets and oyster bars shown in the shallow basins and in the South Amelia River near Amelia City have changed considerably since previous surveys. A large number of private oyster beds have been planted in the vicinity of Amelia City. Most of these beds are posted and these signs serve as an aid to navigation incidental to their intended purpose.

On Chart #577, Harrison Creek is shown to have a controlling depth of 2 feet. It now bares one foot at mean low water near its northern mouth.

Previous surveys show the entrance of Alligator Creek near Bennetts Point as being very shoal, but now 12 feet can be carried across this entrance. In Alligator Creek at Latitude 30° 34.7', Longitude 81° 28.7', a five foot sounding is shown. Now 9 feet can be carried over this spot.

In the South Amelia River at Latitude 30° 34.2', Longitude 81° 28', beacon #44 has been moved about 50 yards south of the position shown on the chart. The 10 foot sounding which appears in the channel on the chart is no longer the controlling depth between Beacons 44 and 33, and 12 feet can now be carried up to Amelia City although there are no docks which can furnish adequate wharfage. The best dock has only 4 feet at mean low water at its face.

The three foot shoal which is shown on the charts in Back River at Latitude 30° 33.1', Longitude 81° 29.9' now has a least depth of 8 feet.

The 14, 15, and 21 foot soundings which appear just south of the small island in Back River at Latitude 30° 33.6', Longitude 81° 30.7' have shoaled up to 1, 10, and 7 feet. The channel now passes north of this island, a place which shows a shoal area on the charts.

DISCREPANCIES:

In the center of the channel of the west branch of the South Amelia River, just east of the mouth of Alligator Creek, two 8 foot soundings were recorded on page 52 Volume 4. These soundings came between positions 78 and 79 H (blue) day. These soundings were later disproved by a development of this area recorded on page 67 Volume 10, position 26 - 36 K (red) day.

In the Nassau River at Latitude 30° 34', Longitude 81° 30.4', two 17 foot soundings were found. See page 4 Volume 8. These soundings were disproved by a development on E day (red) between positions 61 and 69 on page 5 volume 10 and were found to be one fathom deeper.

In Latitude 30° 33.9', Longitude 81° 31.2', in the Nassau River a 16½ foot sounding was recorded in volume 8 page 3 on position 1 A (red). This sounding was later disproved by a development on G day (red) from position 39 to 43 recorded on page 31 volume 10. One fathom deeper was found on this spot. (43-44 F Blue)

At Latitude 30° 35.9', Longitude 81° 28.8' about 45 yards southeast of beacon #32 in the South Amelia River a 3 foot sounding was recorded between a 17 foot and a 21 foot sounding in the channel. The sounding did not have an "O.K" beside it and it was probably meant for 3 fathoms. An investigation was not made as the U. S. Engineers were making a survey of the channel at the time.

GEOGRAPHIC NAMES:

The small island just west of Kingsley Creek is known as Piney Island. The larger island just south of this island and over which the highway and railroad tracks pass is known as Big Piney Island.

Amelia City is the term applied to the settlement on the east bank of the South Amelia River at Latitude 30° 35.2', Longitude 81° 27.7'.

The small creek emptying southward into the South Amelia River just east of Crane Island is known as Broadbent Creek.

The creek which runs west and north from triangulation station Woods U.S.E. at Latitude 30° 36.5', Longitude 81° 29.7' is known as Elwood Branch. It has 3 feet of water to within 100 yards of the highway bridge. see Vol. 10 page 57 of the sounding records.

The wooded bluff on the north shore of Nassau River at the west point of the mouth of Alligator Creek is known locally as Bennetts Point. It is recommended that the above names be adopted for use on the charts.

LANDMARKS:

A list of landmarks and non floating aids to navigation were submitted with the graphic control sheets for this area.

STATISTICS:

Total number of soundings	16,138
Total number of positions	2,718
Statute miles of sounding lines	321.8

Respectfully submitted,

Owen E. Fang

Owen E. Fang,
Observer C. & G. S.

APPROVAL SHEET
TO ACCOMPANY
SHEET NO. 13

Sheet No. 13 and its accompanying records have been inspected and are approved. This sheet does not pretend to be an adequate development of the channels used for the Intra-coastal Waterway. This channel is surveyed annually by the U. S. Engineers and their sheets should be consulted for the latest changes. The Engineers, however, do not examine the shoal basins nor the tributary streams and it is believed this survey is adequate for these areas.

Hubert A. Paton

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

Verification Report
Sheet H-5757

The records conform very closely to the general instructions.

The usual depth curves were drawn with many changes from the field curves.

The field plotting was very thorough and completed to the extent prescribed in the hydo manual.

The soundings were so poorly spaced and so many were omitted it was necessary to replot practically all the soundings

Junctions were made with sheets 5798 and 5799 and were found satisfactory

The control may be found on 9 sheets T 6233 and 6234 ~~Topo sheets 5633-a and 5633-b~~ + 4899.

Comparison was made with the Air photo, partly by E.W. Smith and partly by L.E. Ash (?) shorelining not completed

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. ..5757

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

Number of positions on sheet	2718
Number of positions checked	30
Number of positions revised	7
Number of soundings recorded	16138
Number of soundings revised	Many
Number of signals erroneously plotted or transferred	———

Date: Aug. 26th 1935

Verification by L. E. Ash Time: 11 days 4 hr

Review by R. J. Christman Time: Rev. 17 hrs Cor. 6½ hrs.

HYDROGRAPHIC SURVEY NO. H 5757

Smooth Sheet 1

Boat Sheet 1

Sounding Records 10 Vols.

Descriptive Report Yes

Title Sheet Yes

List of Signals Filed in Vol. 1

Landmarks for Charts (Form 567) Letter # 262, 289, (1935)

Statistics Filed in D.R.

Approved by Chief of Party Yes

Recoverable Station Cards (Form 524) Filed with T 6233a&b, T6234

Special Chart for Lighthouse Service # 577
(Circular Nov. 30,1933)

Remarks

Survey No. H 5757

GEOGRAPHIC NAMES

Date. May 9.1935 FLORIDA

Chart No. 1243

Diagram No. 1243-2

Approved by the Division of Geographic Names, Department of Interior. ✳

Referred to the Division of Geographic Names, Department of Interior. R

Under investigation. Q

Status	Name on Survey	Name on Chart	New Names in local use	Names assigned by Field	Location
✓	Amelia River	Same	✓		
✓	Jackson Creek	"	✓		
✓	Piney Island		✓ Yes		
✓	Big Piney Island		✓ "		
✓	Elwood Branch		✓ "		
✓	Crane Island	Same	✓		
✓	Broadbent Creek		✓ Yes		
	Amelia City	omit from Hydro	✓ "		
	~~Aligator Creek~~	✓ Alligator Creek	✓		
✓	Harrison Creek	"	✓		
	South Amelia River	"	✓		
✓	Bennetts Point		✓ Yes		
✓	Nassau River	Same	✓		
✓	Back River	"	✓		
✓	Kingsley Creek		✓		
✓	Soap Creek		✓		
		verified by Fleming + Woods 5/14/35			
			KTA.		

(M-136)

LAC

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

TIDE NOTE FOR HYDROGRAPHIC SHEET

June 5, 1935

Division of Hydrography and Topography:

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

Tide Reducers are approved in
10 volumes of sounding records for

HYDROGRAPHIC SHEET 5757

Locality Jackson Creek to Back River, Florida

Chief of Party: H. A. Paton in 1934
Plane of reference is mean low water reading
4.2 ft. on tide staff at Fernandina
18.8 ft. below B.M. 30
2.5 ft. on tide staff at Amelia
15.7 ft. below B. M. 1
4.1 ft. on tide staff at Kingsley
8.8 ft. below B.M. 1
4.1 ft. on tide staff at Nassauville
17.7 ft. below B.M. 1

Height of mean high water above plane of reference is 6.2 feet at Fernandina; 5.6 feet at Amelia; 6.0 feet at Kingsley; 5.0 feet at Nassauville.

Condition of records satisfactory except as noted below:

Paul S. Whitney

Chief, Division of Tides and Currents.

U. S. GOVERNMENT PRINTING OFFICE

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5757 (1934-5) - FIELD NO. 13

Jackson Creek to Back River, South Amelia River, Florida
Surveyed in August, 1934 - March, 1935
Instructions dated November 17 and December 5, 1933 (H. A. Paton)

Hand Lead Soundings. 3 Point Fixes on Shore Signals.

Chief of Party - H. A. Paton.
Surveyed by - O. E. Fang and G. W. Lovesee.
Protracted by - O. E. Fang.
Soundings penciled by - O. E. Fang and M. K. Spencer.
Verified and Inked by - L. E. Ash, E. W. Smith.

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 the items of importance except that several discrepancies in soundings were not listed.

2. Compliance with Instructions for the Project.

The plan and character of development are in accordance with the instructions for the project.

3. Shoreline and Signals.

The shoreline originates with Air Photo Compilations T-5233, T-5234, T-5130 and T-5131 of 1933.

Signals are triangulation stations recovered and located in 1933, and from Graphic Control Sheets T-6233a, T-6233b, T-6234 and T-4899 of 1934.

One signal (Deb) was located by sextant cuts (page 17 and 18, Vol. #8).

4. Sounding Line Crossings.

No regular cross lines were run. Soundings on channel lines and on cross lines resulting from the development are generally consistent.

5. Depth Curves.

Within the area covered the usual depth curves may be satisfactorily drawn. No close development of the Intracoastal Waterway was made as it is surveyed annually by the U. S. Engineers, (see approval sheet attached to the Descriptive Report).

6. Junction with Contemporary Surveys.

The junctions with H-5754 (1934-5) on the north and with H-5798 (1935) and H-5799 (1935) on the south are satisfactory. However, no soundings were taken in the old stream bed which was formerly a part of Christopher Creek, lat. 30° 33.7', long. 81° 31.6'.

7. Comparison with Prior Surveys.

a. H-1111 (1871), H-1113a (1871).

These surveys, scale 1-10,000, are the source of information for the tributary streams and the shoal areas not closely adjacent to the Intracoastal Waterway. A general comparison with the present survey shows numerous changes, both in the Intracoastal Waterway, which has been straightened and dredged in a number of places, and in the tributary streams where the channels have changed and the shoals have shifted. Several of the more outstanding changes have been noted on page 5 of the Descriptive Report but it would serve no useful cartographic purpose to list the changes in detail. Because of the lapse of time since these surveys were made and because of the closer development on the present survey, H-5757 (1934-5) should supersede the above surveys for charting purposes.

b. H-4376 (1924).

This survey, scale 1-20,000, slightly overlaps the present survey in the southern parts of the South Amelia River and in Nassau River. The general agreement is good but because of the larger scale and closer development of the present survey, H-5757 (1934-5) should supersede the above survey for charting the area common to them.

8. Comparison with Chart 577 (Corrected to January 28, 1935).

a. Hydrography.

Within the area of the present survey the chart is based on the surveys discussed in the foregoing paragraph and on U. S. Engineer surveys of the Intracoastal Waterway (BP 25864 to 25868 of 1932). Later blueprints of Kingsley Creek are on file (BP 27992 to 27994 of 1934) but have not been applied to the present (1935) edition of the chart.

b. Controlling Depth.

The controlling depth for this part of the Intracoastal Waterway is 7 feet which is found at lat. 30° 37.05', long. 81° 29.00',

southeast of Beacon No. 20. The charted depth at this place is 7½ feet. Attention is directed to the statement in the Approval Sheet attached to the Descriptive Report, "This channel is surveyed annually by the U. S. Engineers and their sheets should be consulted for the latest changes."

c. Aids to Navigation.

The charted positions of the following beacons are not in agreement with the survey:

Beacon	No.	7	is	charted	50	meters	north	of	survey	position.
"	"	38	"	"	100	"	east	"	"	"
"	"	40	"	"	50	"	NW	"	"	"
"	"	44	"	"	70	"	NW	"	"	"
"	"	48	"	"	500	"	south	"	"	"

9. Field Plotting.

The protracting was excellent.

Penciled soundings were so poorly spaced and so many were omitted that the verifier in the office replotted much of the work before inking.

10. Additional Field Work Recommended.

The survey is satisfactory and no further work is required. See paragraph 8b of this review relative to surveys of the Intracoastal Waterway.

11. Superseding Old Surveys.

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

H-1111 (1871) in part.
H-1113a (1871) " "
H-4376 (1924) " "

12. Reviewed by - R. J. Christman, October 10, 1935.

Inspected by - E. P. Ellis, October 30, 1935.

Examined and approved:

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

K. T. Adams
Asst Chief, Division of Charts.

L. B. Borden
Chief, Section of Field Work.

Chief, Division of H. & T.

Applied to drawing of Chart 577 - Dec. 12, 1935 - J.F.W.

25 Jan 2, 1936
EAD

Applied to chart 841 - March 2, 1936 H.H.C.
applied to ~~no~~ reconstruction of chart 463, march 15, 1937 J.F.W.