

5525

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

DESCRIPTIVE REPORT

Topographic- } Sheet No. 8 5525  
Hydrographic }

U. S. COAST & GEODETIC SURVEY  
LIBRARY AND ARCHIVES

OCT 12 1934

Acc. No. \_\_\_\_\_

State South Carolina

LOCALITY

Port Royal Sound

Chowan Creek and Morgan River

1934

CHIEF OF PARTY

Lt. I. E. Rittenburg

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

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OCT 15 1934  
REG. NO. 5525  
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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. 8 5525

REGISTER NO.

State South Carolina

General locality Port Royal Sound (and ~~Sanderson River~~)

Locality Chowan Creek (and Morgan River junction with Morgan River)

Scale 1:10,000 Date of survey March, 19 34

Vessel Shore Party # 15

Chief of Party L. E. Rittenburg

Surveyed by M. D. Cooper, W. C. Huebner

Protracted by W. C. Huebner

Soundings penciled by W. C. Huebner

Soundings in ~~fathoms~~ feet

Plane of reference Mean Low Water

Subdivision of wire dragged areas by \_\_\_\_\_

Inked by W. A. Bruder

Verified by " " "

Instructions dated Nov. 2, 1933, 19

Remarks: \_\_\_\_\_  
\_\_\_\_\_

DESCRIPTIVE REPORT TO ACCOMPANY HYDROGRAPHIC SHEET FIELD NUMBER 8, CHOWAN CREEK ( JOHNSON RIVER ) SOUTH CAROLINA. PROJECT H. & T. NO. 160

1. INSTRUCTIONS.

This survey was made in accordance with instructions from the Director, dated Nov. 2, 1933.

2 JUNCTIONS AND AREA COVERED.

This sheet joins hydro. sheet field no. 1 & 2, on the south end and will join the hydrography of the M. V. Natoma 1934 on the north end. This sheet covers Chowan Creek ( Johnson River ) for its entire length and shows the junction of this creek with Lucy Point Creek and Morgan River.

3 SURVEY METHODS AND CONTROL

Standard methods were employed throughout this entire survey. The horizontal control was based on the excellent triangulation of C. A. Egner, 1933. Supplemental stations were located by means of the plane table and alidade with at least three intersecting cuts. Several signals were located by means of sextant angles due to the fact that after the signals had all been built and located they either blew down or disappeared.

4 DISCREPANCIES

None.

5 CHANNELS

There has been considerable shoaling in Chowan Creek, especially in the vicinity of the bridge and causeway across the middle of the creek. This bridge is believed to have caused this shoaling. At the present time there is no through channel in this creek at low water. For considerable distance north and south of this bridge mudflats completely block the channel. As the bridge has a clearance of only three feet at high water this creek is not navigable even at high water for anything but small boats. At station SWEDE, 1933, there are two branches making out from the main creek. The eastern branch is navigable to signal Zel which marks a dock. Vessels drawing seven feet make this a regular port of call by waiting for the tide. The limiting depth at low water is three feet between signals John and Me.. In the western branch signals Do and Ess show the locations of docks at which vessels unload fertilizer etc. occasionally. Ten feet can be carried to both these docks. Seven feet can be carried almost to the limit of this survey.

bridge existed prior to old surveys of the area, which show same condition as exists now, re-shoals and flats. ✓

9ft. at ✓  
Lat. 32° 22.93'  
Long. 80° 38.62'

6 DANGERS

Practically all depth curves were omitted from this sheet to avoid confusing the verifier. In the navigable waterways no dangers of any consequence were found other than mudflats of more or less extensive area. Vessels will have no trouble in following the channels with the aid of a chart ✓

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SHORELINE

In general the shoreline is low marsh. This survey was completed before the shoreline was available from the air photo reduction unit. The low water line was obtained wherever possible by running lines as close as possible to the high water line at high tide.

8

TIDES

All soundings north of the bridge were reduced from the records of the portable automatic tide gage operated at the junction of Lucy Point Creek and the Morgan River. Signal Ship is the exact location of this gage. South of the bridge, soundings were reduced from the records of a portable automatic gage operated north of station Swede and shown on the hydro, sheet by a blue circle. In addition a standard automatic gage was operated at the Marine Barracks, Parris Island for the entire duration of this survey.

9

LANDMARKS FOR CHARTING.

There are no landmarks of sufficient prominence for charting in this area with the exception of the Astial Beacon which is already charted.

10

STATISTICS

Statute miles of sounding lines	166.0
number of soundings taken	5544
number of positions taken	1860

I. E. Rittenburg, Lieut.,  
Coast & Geodetic Survey,  
Chief of Party.

NOTE ON SMOOTH PLOT OF RITTENBURG'S SHEET  
\* NO. 8

The location of signal "ZEL" by plane table failed to agree with the radial plot of the photo-compilation. The radial plotting was checked and gave a strong determination of "ZEL" (the S.W. corner of a dock). Because of the fact that this signal is the last one up the creek and was located by very weak cuts, it is believed that its position was incorrectly shown on the plane table sheet.

By using the radial plot position of "ZEL" and replotting the sextant-located signals "WHO" and "WHY", the soundings cross more favorably and agree closely with the photo-compiled shoreline.

Because of the relative unimportance of the end of this stream, the additional expense involved in a closer determination was considered unjustified. With the exception of the area noted above, plotting of positions and soundings was accomplished by the party of Lt. Rittenburg. Shoreline was applied to the smooth sheet by this party.

Respectfully submitted,

  
Lt. Benjamin H. Digg,  
Chief of Party,  
H. & G. Engineer.

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. 5525

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

Number of positions on sheet	1860
Number of positions checked	200
Number of positions revised	2
Number of soundings recorded	5544
Number of soundings revised	700
Number of signals erroneously plotted or transferred	0

Date: Nov. 19, 1934

Cartographer: Wallace A. Bruder

Verification of plotting & inking of texts and sheets)	by Wallace A. Bruder	Time	40 hrs.
Verification of inking	by Wallace A. Bruder	Time	50 hrs.
Review by	John G. Reed	Time	13 1/2 hrs.

To; Mr. Bacon  
From L. S. S.

Date. Oct. 25, 1934

GEOGRAPHIC NAMES  
SOUTH CAROLINA

Survey No. H 5525

Chart No. 1240

Diagram No. 1240-2

*Names underlined in red approved Oct 25, 1934*

*H.B.*

- \* Approved by the Division of Geographic Names, Department of Interior.
- φ, Not Approved by the Division of Geographic Names, Department of Interior.
- R, Referred to the Division of Geographic Names, Department of Interior.

Status	Name on Survey	Name on Chart	New Names in local use	Names assigned by Field	Location
✓	<u>Chowan Creek</u>	Same			
✓	<u>St. Helena Island</u>	"			
✓	<u>Ladies Island</u>	"			
✓	<u>Morgan River</u>	"			
✓	<u>Lucy Point Creek</u>	"			

82

lcc

November 6, 1934.

Division of Hydrography and Topography:

✓ Division of Charts:

Tide Reducers are approved in  
5 volumes of sounding records for

HYDROGRAPHIC SHEET 5525


Locality Chowan Creek and Morgan River, South Carolina

Chief of Party: I. E. Rittenburg in 1934  
Plane of reference is mean low water reading  
3.4 ft. on tide staff at Chowan Creek (Distant Island)  
9.6 ft. below B.M. 1

2.9 ft. on tide staff at Lucy Point  
10.2 ft. below B.M. 1

Height of mean high water above plane of reference is 7.1 feet at  
Chowan Creek (Distant I.) and 6.8 feet at Lucy Point (North Entrance  
Chowan Creek).

Condition of records satisfactory except as noted below:

  
Acting Chief, Division of Tides and Currents.



FIELD RECORDS REPORT ON H-5525.

Chief of party: I. E. Rittenburg.  
 Protracted by: W. C. Huebner.  
 Verified and inked by: W. A. Bruder.  
 Surveyed in March, 1934.  
 Surveyed by: M. D. Cooper, W. C. Huebner.  
 Soundings plotted by: W. C. Huebner.

1. The records conform to the requirements of the General Instructions. ✓
2. Because of the narrow waters, a selection of the usual depth curves had to be made. The depth curves showing the channel and shoal locations were given preference in all cases. ✓
3. The field plotting was complete to the extent prescribed in the General Instructions. ✓
4. Approximately 700 field-plotted soundings were corrected by the verifier, due to three reasons:
  1. Change of several tide reducers.
  2. Plus  $\frac{1}{2}$  was plotted in field as 0. *whereas on this sheet all  $\frac{1}{2}$  are plotted as such.* ✓
  3. Critical sounding was not given preference.
5. The junction with H-5518 is satisfactory and complete. This is the only available adjacent sheet at present. ✓

6. Remarks.

Lat.  $32^{\circ}27.0'$ , Long.  $80^{\circ}34.8'$  - 10 meters north of  $\Delta$  HOPE 1933 there is apparently a ~~hydrographic~~ <sup>topographic</sup> station with no name on the smooth sheet. It is not shown on boat sheet. *apparently not used.* ✓

Lat.  $32^{\circ}26.7'$  - The shoreline of H-5525 at  $\Delta$  LUCY is identical with the low water line of T-6093-a. *Shoreline agrees with air-photo compilation.*

At the time of verification the air photo <sup>Compilation sheet</sup> was not available to clarify the following:

Lat.  $32^{\circ}25.7'$ , Long.  $80^{\circ}37.1'$  - Pos. 21-23L shows the boat to go across the edge of the swampy island. 22L plots on the island. *Verified with air photo and made necessary corrections. W.A.B. 12/27/34* ✓

Lat.  $32^{\circ}25.9'$ , Long.  $80^{\circ}36.5'$  - The shoreline east of  $\odot$  RING is not shown.

The following signals shown out in the water do not specify what they are nor is this shown in the records or on the boat sheet: (north to south):

GET, <sup>OK</sup>TWO, SHIP, TED, <sup>OK!</sup>RING, COX, NEW, MAN, <sup>OK! 12/24/34</sup>PEL, <sup>OK</sup>YB, GUY, <sup>OK</sup>LUM, KING. *W.A.B.*

*A description as to the type of the above signals could be found nowhere.*

*The investigation included the plan table sheets and descriptive reports of T-6091 a and b, T-6092 a and b; and the descriptive report of H 5525.* ✓

*Due to the low marshy shoreline there is the possibility of these above signals being off shore.*

*12/27/34 W.A.B.*

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5525 (1934).

Chowan Creek and Morgan River, Port Royal Sound, S. Carolina.  
Instructions dated November 2, 1933 (NATOMA).  
Surveyed - March, 1934.

Hand Lead Soundings - 3-Point Fixes on Shore Signals.

Chief of Party - I. E. Rittenburg.  
Surveyed by - M. D. Cooper; W. C. Huebner.  
Protracted and soundings penciled by - W. C. Huebner.  
Verified and inked by - W. A. Bruder.

1. Condition of Records.

The records are neat and legible and conform to the requirements of the Hydrographic Manual with the following exceptions:

a. No topographic features are shown on the smooth sheet for a number of signals that plot outside the highwater line. They are considered, however, to be on the outer edge of the marsh and of a temporary nature, established for the principal use of the hydrographic party.

b. The transfer carbon paper used in transferring the shoreline to the smooth sheet left a heavy greasy line which is difficult to remove. (*burnished on from print furnished by office - CKG*)

2. Compliance with Instructions for the Project.

The survey satisfies the instructions for the project with the exception that no regular system of cross lines was run as called for in par. 14 of the instructions.

3. Sounding Line Crossings.

No regular system of cross lines were run, however those that do occur in the normal development of the area, together with the parallel adjacent lines, are in good agreement.

4. Depth Curves.

The usual depth curves may be satisfactorily drawn, including portions of the zero foot curve.

5. Junctions With Contemporary Surveys.

A satisfactory junction is made with H. 5518 (1934) on the south. The survey on the north has not yet been received.

6. Comparison with Prior Surveys.

a. H. 834 (1862).

This survey which covers a portion of Chowan Creek is in fair agreement with the present survey. In general the latter survey is uniformly deeper by 1 to 3 feet in the channel areas. Since there are no shoals of importance on the old survey that were not located on the present survey, a detailed comparison is unnecessary in this review.

b. H. 962 (1868) and H. 1155a (1872).

These surveys cover the balance of the area of the new survey. Considering the nature of the area and the date of the surveys, they are in fair agreement with the present survey. The differences that do exist, however, are mainly minor, such as would be expected in such areas. There are no shoals of importance that are shown on the old surveys that were not located on the present survey, hence a detailed comparison is not considered necessary.

7. Comparison With Chart 1240.

Within the area of the present survey the chart is based on surveys discussed in the foregoing paragraphs and contains no additional information that needs consideration in this review.

8. Field Plotting.

The field plotting was satisfactory.

9. Additional Field Work Recommended.

No additional field work is recommended.

10. Superseding Old Surveys.

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

H. 834 (1862)	In part.
H. 962 (1868)	" "
H. 1155a (1872)	" "

11. Reviewed by - John G. Ladd - January, 1935.

Inspected by - A. L. Shalowitz.

Examined and approved:

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

*L. O. Lobnitz*  
Chief, Division of Charts.

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

*J. G. Ladd*  
Chief, Division of H. & T.

Applied to Cht. 571, Apr. 9, 1935

K. Reynolds

25 Jan 13, 1936  
call