

5804

U. S. COAST & GEODETIC SURVEY  
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Form 504  
Rev. Dec. 1933

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

### DESCRIPTIVE REPORT

Topographic }  
Hydrographic } Sheet No. 33

State South Carolina

#### LOCALITY

~~Between McClellanville & Charleston,~~  
~~South Carolina~~

~~Dewees Inlet, Capers Inlet, &~~  
~~Price Inlet.~~

Capers Inlet & Vicinity  
Price Inlet to Dewees Inlet

193 5

#### CHIEF OF PARTY

Benjamin H. Rigg.

5804

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO.  
MAY 31 1935  
U. S. COAST & GEODETIC SURVEY  
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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. 33

REGISTER NO. 5804

State South Carolina

General locality Capers Inlet & Vicinity  
~~Beaufort, W. Cr. Inlet, Currituck, & Charles City, Cr. Inlet~~

Locality Price Inlet to Dewees Inlet  
~~Dewees Inlet, Capers Inlet, & Price Inlet~~

Scale 1:10,000 Date of survey March, 19 35

Vessel Party No. 19

Chief of Party Benjamin H. Rigg

Surveyed by Lt. (j.g.) Edward B. Brown, Jr.

Protracted by H. L. Beck, Jr.

Soundings penciled by C. J. Harryman

Soundings in fathoms feet

Plane of reference M.L.W.

Subdivision of wire dragged areas by

Inked by S. R. Ludlow

Verified by S. R. Ludlow

Instructions dated October 10, 19 35

Remarks:

DESCRIPTIVE REPORT TO ACCOMPANY  
HYDROGRAPHIC SHEET NO. 33

DATE OF INSTRUCTIONS - October 10, 1935.<sup>3</sup>

SURVEY METHODS - The soundings were taken with a hand lead line while the sounding launch was underway on the lines. The lines were run on ranges when possible, by compass courses, by following shoreline, by following center lines of small creeks, and by following the ebb tide channel in creeks. The method of running the lines is stated in the record books. The positions were taken by the standard three point sextant fixes on signals that were located by graphic triangulation on aluminum control sheets.

Special attention was paid to hydrography in natural waterways that are used as a part of the Intracoastal Waterway. Lines in these waterways were spaced about 20 to 25 meters apart. Attention was paid to hydrography in creeks and rivers that lead from the Intracoastal Waterway to inlets; Lines in these waterways were spaced about 25 to 50 meters apart. These inlets have shifting bars, therefore lines were run over the bars with an idea of giving a general picture of bar at the time of the survey. It was not considered necessary to waste time on these bars when the next North East Storm would probably change the bars both in direction and depth. Lines run over the bars were spaced about 50 to 75 meters apart. Outside the bars where the bottom is not subject to frequent change, lines were spaced about 100 to 300 meters apart. An attempt was made to extend the work to a junction with previous surveys.

In Dewees Inlet a development was made as far as the bar. Lines were run under various weather conditions and at no time was the hydrographer able to determine the channel, over the bar. The inlet was generally entirely enveloped with breakers. Several sloughs could be seen, but only single lines could be run through them due to their small width. From the data that could be obtained, the general depth on the bar, exclusive of the small sloughs, is 1 to 2 feet at mean low tide.

DISCREPANCIES - On "b" day pos. 69 to 70, Vol. No. 1, page 71, there is a confusion of the time of the soundings. According to previous spacing of soundings there was a sounding taken that was not recorded. The soundings between these two positions were all 18' (reduced), so they were spaced according to the number of soundings between the positions and not the recorded times. No field investigation was made of this discrepancy.

DANGERS - There is a small shoal in Price Creek at Lat.  $32^{\circ} 53'$ , Long.  $79^{\circ} 39.4'$  that has a least depth of four feet at mean low tide. Closely spaced lines were run over this shoal. The four foot sounding was taken on position 121 "b" day.

In the mouth of Capers Creek the high water line has been cut back leaving numerous stumps and snags near the low water line. There is a dead tree on the six foot curve that bares 9 feet at mean high tide, at Lat.  $32^{\circ} 51.1'$ , Long.  $79^{\circ} 42'$ . A note was entered on page 19, Vol. 4, the first sounding after pos. 49 "e" day.

In Capers Creek there are two small shoals at Lat.  $32^{\circ} 51.3'$ , Long.  $79^{\circ} 42.4'$ . The least depth on the Easterly most shoal is four feet obtained on position 117 "g" day. The least depth on the westerly shoal is five feet. The shoals were developed by closely spaced lines and by sounding while drifting across shoals for 25 minutes.

In Capers creek at Lat.  $32^{\circ} 52.5'$ , Long.  $79^{\circ} 42.1'$ , there is a small shoal middle ground with a six foot controlling depth. This shoal was developed by closely spaced lines about ten to twenty-five meters apart.

In Capers Creek at Lat.  $32^{\circ} 52.3'$ , Long.  $79^{\circ} 42.2'$  a flat extends entirely across the creek. The controlling depth across this flat is five feet. The flat was developed by lines spaced about 50 m. apart. From the southwestern point of the mouth of Toomer Creek there is a shoal point extending in the south easterly direction the general depth over this point is one to two feet.

At Lat.  $32^{\circ} 51.1'$ , Long.  $79^{\circ} 42.5'$  the controlling depth is two feet near the end of the shoal point.

The Dewees Inlet entrance bar is very shoal with a general depth of one to two feet. This bar has no entrance channel. The bar is generally completely surrounded by heavy breakers. However, there are several very narrow sloughs that cross this bar.

In the Intracoastal Waterway at Lat.  $32^{\circ} 50'$ , Long.  $79^{\circ} 44.5'$  there is a shoal on the eastern side of the channel. The general depth over this shoal is two to three feet. This shoal was developed by lines spaced approximately 20 meters apart. This shoal may be avoided by running about 50 m. from the high water line on the western shore of the waterway.

CHANNELS - The channel over the entrance bar at Price Inlet is unmarked, running in a northerly direction and is controlled by a depth of six feet at Lat.  $32^{\circ} 51.8'$ , Long.  $79^{\circ} 38.95'$  between positions 40 and 41 "b" day. There is a shoal point on the eastern side of the channel that is bare at low tide. The sea breaks at all stages of the tide on this point. There is a small shoal on the western side of the channel, at Lat.  $32^{\circ} 51.8'$ , Long.  $79^{\circ} 39.1'$ . That ~~has a controlling depth of two feet.~~ This inlet is the best of the three inlets surveyed on this sheet.

From Price Inlet through Price Creek to the Intracoastal Waterway the controlling depth through the ebb tide channel is eight feet. This depth is found at Lat.  $32^{\circ} 52.8'$ , Long.  $79^{\circ} 39.4'$  and Lat.  $32^{\circ} 54.2'$ , Long.  $79^{\circ} 40.5'$ .

In Santee Pass the controlling depth along the center line is four feet at Lat.  $32^{\circ} 52.8'$ , Long.  $79^{\circ} 40.8'$  and at Lat.  $32^{\circ} 52.7'$ , Long.  $79^{\circ} 40.95'$ . Several attempts were made to find a channel through Mark Bay and no channel was found. This bay is generally covered by Oyster bars that are bare at low tide.

The upper part of Capers Creek is used as part of the Intracoastal Waterway. The controlling depth in this part of the river is 11 feet at Lat.  $32^{\circ} 52.6'$

Long. 79° 42.1'. This channel is marked by the regular system of beacons. ✓

The channel over the Capers Inlet bar is unmarked, running in a south westerly direction and is controlled by a depth of four feet, At. Lat. 32° 50.3' Long. 79° 41.3'. The channel after crossing the bar swings northwestward around a shoal point that is bare at low tide. Seas break on this shoal point at high tide and at any stage of the tide when the wind is from the East or Northeast. There is a shoal point on the southern side of the channel that is bare at low tide and breaks the sea when the wind is from the south or southwest. This is a good entrance bar when the wind is from the southwest or west. The depth of four feet may be taken from the bar to the Intracoastal Waterway through Capers Creek or any of its tributaries.

The Intracoastal Waterway through Bullyard Sound is bounded on either side by mud flats that are bare at low tide. There are several spoil disposal areas near the edge of the channel that are bare at one half tide. ✓ The channel is marked by lighted and unlighted beacons spaced close together. This channel is maintained by the U.S. Army Engineers. When approaching Bullyard Sound from a southwesterly direction, care must be taken to run close to the beacons on the westerly side of the channel to avoid a shoal on the eastern side of the channel. This shoal has a general depth of two to three feet at ✓ Lat. 32° 50', Long. 79° 44.5'.

There are several narrow sloughs that cross the Dewees Inlet Bar. The most important of these sloughs is at Lat. 32° 47.8', Long. 79° 43'. The controlling depth through this slough is four feet on position 167m. The general ✓ depth on this bar is one to two feet and the bar is generally, entirely surrounded by heavy breakers. It is recommended that stranger not use this inlet.

Dewees Creek is very deep. The controlling depth of the creek is 23 feet ✓ at Lat. 32° 50', Long. 79° 45' between positions 160 and 161 g day.

A small creek runs to the northwestward from Dewees Creek at Lat. 32° 50.1', Long. 79° 44.9'. This creek runs to a small wharf at Lat. 32° 51.4', Long. 79° 45.6'. The controlling depth in the creek is two feet near its head. This channel is marked by Brush stakes.

There are no channels that run through Copahoe Sound. The sound is generally covered with oyster bars that are bare at low tide.

TIDES. - Hydrographic Sheet 33 covers Dewees Inlet, Capers Inlet, and Prices Inlet and is controlled entirely by a tide gauge located in Dewees Inlet.

Dewees Inlet gauge is located at Lat. 32° 49.69', Long. 79° 43.56'. This gauge was in operation from January 29, 1935 to March 1, 1935. Mean low water on the staff was 3.9 feet.

Reductions for soundings were taken from this gauge for Dewees Inlet, Capers Inlet, and Price Inlet.

STATISTICS -

Vol. No.	Miles	Soundings	Positions
1	39.7	1765	273
2	39.6	1777	263
3	37.9	1689	275
4	28.2	1407	234
5	35.8	1572	281
6	32.3	1653	282
7	39.0	1738	256
8	30.3	1459	253
9	14.3	774	124
	297.1	13834	2211

Respectfully submitted,

*Edward B. Brown, Jr.*  
Lt. (j.g.) Edward B. Brown, Jr.

Forwarded by *Benjamin V. Rigg*

Lt. Benjamin V. Rigg,  
Chief of Party.

HYDROGRAPHIC SURVEY NO. H5804

Smooth Sheet 1

Boat Sheet 1

Sounding Records 9 Vols.           

Descriptive Report Yes

Title Sheet Yes

List of Signals Yes in Vol. 1

Landmarks for Charts (Form 567) Yes

Statistics Yes

Approved by Chief of Party B. H. Rigg

Recoverable Station Cards (Form 524)           

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

Remarks



Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. **.5804**

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

Number of positions on sheet	<b>2241</b>
Number of positions checked	<b>.83.</b>
Number of positions revised	<b>...1..</b>
Number of soundings recorded	<b>13834</b>
Number of soundings revised	<b>...14.</b>
Number of signals erroneously plotted or transferred	<b>.....</b>

Date: **Aug. 1, 1935**

Verification by **S.R. Ludlow.**

Time: **147 hrs.**

Review by **V.D. Behn.**  
**H.W. Murray**

Time: **17 ..**  
**4 ..**



ACC

TIDE NOTE FOR HYDROGRAPHIC SHEET

June 14, 1935

Division of Hydrography and Topography:

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

Tide Reducers are approved in  
9 volumes of sounding records for

HYDROGRAPHIC SHEET 5804

Locality Price Inlet to Dewees Inlet, South Carolina

Chief of Party: B. H. Rigg in 1935  
Plane of reference is mean low water reading  
3.9 ft. on tide staff at Dewees Inlet  
14.0 ft. below B.M. 1

Height of mean high water above plane of reference is 5.0 feet

Condition of records satisfactory except as noted below:

*P. Schurman*  
*Acting* Chief, Division of Tides and Currents.

Verification Report on H. 5804

The records are complete and conform to the requirements of the general instructions. <sup>except as noted in the review</sup>

The usual depth curves could be completely drawn except in a few cases the depths changed so abruptly that it was not possible to get all the curves in.

The field plotting was very satisfactory, there were however quite a few places where only very other soundings were plotted.

The junction with sheet H-5786 was satisfactory the junction with sheet H-5810 was made on sheet H-5810.

The sheet was compared with air photocomps 5392, 5393, 5394 and 5549.

The delineation of the depth curves by the field plotter was satisfactory.

A dock 10 meters to port of the sounding just before position 1589 was not plotted. It is not shown on the air photo comps or the boat sheet.

Rock plotted on sheet and discussed in review.

St. Ludlow

Aug. 1, 1934.

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5804 (1935) - FIELD NO. 33

Price Inlet to Dewees Inlet, Capers Inlet and Vicinity, South Carolina  
Surveyed in March 1935  
Instructions dated October 10, 1933 (B. H. Rigg)

Hand Lead Soundings.

3 Point Fixes on Shore Signals.

Chief of Party - B. H. Rigg.  
Surveyed by - E. B. Brown, Jr.  
Protracted by - H. L. Beck, Jr.  
Soundings plotted by - C. J. Harryman.  
Verified and Inked by - S. R. Ludlow.

1. Condition of Records.

The records are neat and legible and conform to the requirements of the Hydrographic Manual, except as follows:

- a. No description of two offshore signals ("Dan" in latitude  $32^{\circ} 50.25'$ , longitude  $79^{\circ} 44.45'$ , and "Bea" in latitude  $32^{\circ} 50.6'$ , longitude  $79^{\circ} 44.1'$ ) was submitted.
- b. Numerous beacons, shown on the plane table surveys in areas covered by hydrography, were not shown on the smooth sheet. These were added in the office.

The Descriptive Report is clear and comprehensive and adequately covers all matters of importance.

2. Compliance with Instructions for the Project.

This survey complies with the instructions for the project.

3. Shoreline.

The shoreline on this survey was transferred from Air Photo Compilation Surveys T-5392, T-5393, T-5394 and T-5549.

The signals on this survey were transferred from plane table surveys T-6290a and b (1935), and T-6289b (1935).

4. Sounding Line Crossings.

The cross lines as well as adjacent parallel lines are in satisfactory agreement.

5. Depth Curves.

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

6. Junctions with Contemporary Surveys.

The junction with H-5810 (1935) on the west is satisfactory. However, in the vicinity of latitude  $32^{\circ} 49.45'$ , longitude  $79^{\circ} 44.70'$ , there is a gap between the limits of the two surveys. This gap is in a section of the Intracoastal Waterway, which, according to the instructions, was not to be surveyed.

The junction with H-5786 (1935) on the northeast is satisfactory.

There are no contemporary surveys at the offshore limits. However, the present survey is in fair agreement with the surveys of 1921 except in the vicinity of the bar at Dewees Inlet where the limits of the smooth sheet prevented the work being carried far enough offshore to reach agreement.

7. Comparison with Prior Surveys.

- |    |         |        |         |        |
|----|---------|--------|---------|--------|
| a. | H-626   | (1857) | H-1277b | (1875) |
|    | H-683   | (1859) | H-1680  | (1886) |
|    | H-1277a | (1875) |         |        |

A comparison between the above surveys and the present survey reveals numerous changes in depths and locations of shoals as well as changes in shoreline. Because of the time elapsed between the earlier surveys and the present survey and the general character of the area it is unnecessary to consider in detail from the standpoint of information to be carried forward, the various changes noted. The present survey should supersede the above surveys for charting purposes.

- b. H-4179 (1921) and H-4180 (1921).

A comparison with these 1:20,000 scale surveys indicates that changes have taken place in this area, especially in the vicinity of the inlets. However, with the exception of the area in front of Dewees Inlet, the limits of the present survey have been carried offshore and away from the inlets until a fair agreement was obtained with the above surveys. In view of the above and the closer development on the present survey it should supersede the above surveys for charting purposes.

8. Comparison with Charts Nos. 1238 and 3255.

- a. Hydrography.

Within the area of the present survey the above 1:80,000 scale charts are based on surveys discussed in the foregoing paragraphs of this review, and a 1909 survey by the U. S. Engineers'

(Bp. 14479) in the vicinity of latitude  $32^{\circ} 51.5'$ , longitude  $79^{\circ} 42.6'$ . A comparison with the present survey indicates that considerable change has taken place in view of which this blueprint should be superseded in future charting.

b. Aids to Navigation.

Beacons shown on the present survey which have been transferred from the contemporary topographic sheets, are not shown on the present editions of charts Nos. 1238 and 3255. However, blueprint 28527 accompanied by Chart Letter No. 354 (1935) shows aids to navigation which have been "spotted by eye" which spotted positions should be superseded by the positions shown on the present survey.

c. Controlling Depths in Channels.

The charted controlling depths from Winyah Bay to Charlestown in the Intracoastal Waterway is 4 feet. In those portions of this waterway covered by the present survey the controlling depth is considerably greater than this. However, a shoal with a general depth of 2 to 3 feet was developed in latitude  $32^{\circ} 50.0'$ , longitude  $79^{\circ} 44.5'$ , and may be avoided by favoring the western shore of the waterway. (See Descriptive Report, page 3).

9. Field Plotting.

The field plotting and protracting are satisfactory and conform to the requirements of the Hydrographic Manual.

10. Additional Field Work Recommended.

This survey is complete except for some minor creeks, and no additional work is required.

11. Note to Compiler.

Attention is directed to a small dock in latitude  $32^{\circ} 51.4'$ , longitude  $79^{\circ} 45.7'$ , which has been plotted from information contained in the sounding records (line 157-158g, red) and is not shown on the contemporary topographic surveys.

12. Superseding Old Surveys.

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

H-626	(1857)	In part
H-683	(1859)	" "
H-1277a	(1875)	" "
H-1277b	(1875)	" "
H-1680	(1886)	" "
H-4179	(1921)	" "
H-4180	(1921)	" "

13. Reviewed by V. D. Behn, August 21, 1935, and  
Harold W. Murray, August 26, 1935.

Inspected by - R. L. Johnston.

Examined and approved:

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

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

*James E. Borden*  
Chief, Section  
of Field Work.

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



Applied to chart 837	Nov. 30, 1935	H.H.C.
" " " 1239	Apr. 1937	J.M.A.
" " " 1238	Oct. 29, 1937	J.H.S.