

3898

Diag. Cht. No. 1240-2

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey *Hydrographic*
Field No. Office No. *3898*

LOCALITY

State *South Carolina*

General locality *Port Royal*

Locality *Sound, Beaufort*
& Beaufort Rivers

1916

CHIEF OF PARTY

F. G. Engle

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DATE

3898

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Form 504

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

State: *S. Carolina*

11-5613

DESCRIPTIVE REPORT.

~~Hyd.~~ Sheet No. *3898*

LOCALITY:

Port Royal Sound

Broad & Beaufort

Rivers

191*6*

CHIEF OF PARTY:

F. Y. Engle

3898

DESCRIPTIVE REPORT

TO ACCOMPANY HYDROGRAPHIC SHEET NO. **3898**...

SCALE 1-~~20~~,000

PORT ROYAL SOUND, BROAD AND BEAUFORT RIVERS, S. C.

The work on this sheet was done by launch 51 of the Str. HYDROGRAPHER and in connection with the latter's work in the entrance and bar, form the complete resurvey of the waters in and adjacent to the channel from Martins Industry bar to the U.S. Marine Barracks training station on the Beaufort River side of Paris I.

This survey was made in accordance with instructions dated Nov. 24 and Dec. 1, 1916. Moderately hazy weather was used for the work in the sound or when heavy swell prevented work by the ship outside. Smooth sea was needed however in sounding over the shoals on either side of the channel and some risk was taken on this part of the work. Mention may be made here of the noisy engine and the general unfitness of both engine and boat for this work. Considerable ^{trouble} was given to the party and anxiety to all concerned when the launch was working outside due to motor troubles and breakdowns.

DEPTHS AND SAILING DIRECTIONS.

The 4 fathom channel extends as far up as the naval station but without local knowledge only about 20 to 21 ft can safely be carried that far. This is about the depth of the bar at Martins Industry.

Proceeding up the entrance to the sound on the Paris I. range, Bay Point the SE end of St. Phillips I. is passed about 1/5 mile on the starboard hand. The range is run about one mile beyond the point and when the small gas buoy marking the shoal on the south end of Paris I. is on the bow and distant about 1/6 mile steer 9° true for two miles leaving black cans #7 and #9 on the port hand and close aboard. Then head 350° true for 1 1/2 miles and with red nun buoy #6

1/2 mile ahead haul to 333° true which carries to the station.

Survey Methods.

All soundings are by hand lead and the positions are taken between triangulation ^{stations} when possible. The other signals were located by plane table traverse. Soundings were plotted roughly on the boat sheet and examined. Critical areas and important shoals were then developed. The main system of lines was run across the sound and rivers cutting the depth curves.

The only prominent objects in this vicinity outside of the lights and ranges are the following: A black water tank at Fort Fremont, the yellow water tank and the three stacks of the power plant at the Paris I. Training Station. The three palmettos at the mouth of Station Creek (PAL) are also prominent.

BOAT CHANNELS.

Small boats can proceed close around Bay Point from Port Royal Sound to Trenchards Inlet by passing within 25 meters of low water line at Bay Point where the channel becomes almost dry at extreme low water. It is outlined by the breakers in moderate weather.

Small boats can pass through a channel at the NW end of Joiners Bank at a point NNE of signal Hilton. There is a depth of 1½ or 2 ft at low water in the shoalest part. The currents here are strong and care is necessary to avoid grounding. In moderate weather the channel is outlined by breakers and indicated on the flood and ebb by small tide rips.

The channel into Station Creek remains about the same as shown on the old chart. The red nun buoy marking the end of the spit which extends from the north side should be left on the port hand in entering the Creek from the Sound.

TOPOGRAPHY.

The revision of the shoreline was done on the hydrographic sheet in the

field by Mr. Gardiner Luce, Aid. Traverses were run along the shore from one triangulation station to the next and the shoreline redDED in together with the small signals found necessary for the hydrography.

DESCRIPTION OF THE COAST.

That part of Capers I. included on the sheet is a sand point with white sand dunes about 15 ft high, almost bare and having a broad beach on the ocean side. It is building up rapidly to the SW and the shoals in that direction are building up and forming dry islets. St. Phillips I. is partially wooded with low sand dunes between the woods and the beach and with marshes in back of the woods. Bay Point is building outward towards the Paris I. range and the shoals to seaward seem to be building up also. Hilton Head I. is thickly wooded with the exception of a small area on the SE end where the sand dunes are covered by low bushes. It has a 10 to 15 ft bluff on the SE and NE sides and about $\frac{1}{2}$ mile outside of Scull Creek there is a small stretch of soft sandstone bluff formation and where broken down presents somewhat of the appearance of a rocky shore. The island is partially cultivated by negro tenants in the vicinity of Scull Creek and is used by the owner as a game preserve.

CHANGES.

The NE and SE shores of Hilton Head I. are wearing back slightly as is the case with Pinckneys I. and Daws I. Paris I. is also wearing on the South side. Mention has already been made of the extension of Bay Point and Capers I. and the building up of the sand shoals adjacent.

Respectfully submitted,

F. Y. Engle

Assistant C. & G. Survey.

PLANE TABLE STATIONS, PORT ROYAL SOUND, S. C.

	LAT	D.M.	LONG	D.P.	HTS.	REMARKS.
Fort Freemont Hospital, West Chimney.	32° 18'	1083	80° 38'	968		Brick House.
Met	17'	736	38'	1146		Lone Palmetto.
Pin	17'	233	38'	987		Lone pine.
Pal	16'	1670	38'	777		Middle of three Palmettos at Sta. Creek.
Shell	16'	1027	38'	956		Small hyd'c. signal.
Man	15'	1590	38'	1090		" " "
Shack	15'	740	38'	826		Small ho. on Bay Pt.
No	15'	870	37'	1029		Wly. of two houses to the W. of sig. Pt.
Pole	20'	622	40'	10		Near Quar. Sta. flag pole.
Ball	18'	947	41'	1091		Lone Palmetto on W. side of Pine Id.
To	18'	1032	41'	1243		Do
Gab	19'	234	42'	379		SW. gable of burnt ho
Mud	19'	706	42'	795		Plane table hyd'c.
Tar	19'	1483	42'	1106		signal.
Mao	16'	1093	45'	578		Small shack, blk. roof.
Lone	16'	34	44'	2		Lone tree near Mekay creek.
Mursh	15'	42	42'	35		Tall lone pine near Skull Creek.
Tag	14'	482	40'	1267		Hyd'c. signal, small.
H ₁	13'	1159	40'	502		" " "

VEC
Feb. 6, 1917

LIBRARY

RF

Place with descriptive report
of hydrographic sheet No. 3898

HYDROGRAPHIC SHEET 3898.

J.F.F.

Drawing Section.

Port Royal Entrance, South Carolina, by Assistant
F. G. Engle in 1916.

TIDES.

	Station Creek. Feet.
Mean low water or plane of reference on staff	4.2
Mean range of tide	6.7

HYDROGRAPHIC SHEET NO. 3898

Positions through Q day protracted by Field Party - remainder by S. L. R. Soundings through L day plotted by L. G. G., and verified and inked by S. L. R. Remaining soundings plotted and inked by S. L. R. and verified by J. B. S.

This survey was uniformly good. The area was fully developed, the records were well kept and the crossings (with the three exceptions indicated on the sheet in pencil) were good.

The changes of considerable importance which have taken place south of Bay Point since the previous survey are described in the Descriptive Report of the Chief of Party.

→ Copy for Descriptive Report

✓ The 11, 15, and 12 ft. shoals shown on Chart 571 at about Lat. $32^{\circ}16'$ and Long. $80^{\circ}41'$; the 17 and 18 ft. shoals at Middle Shoal, and the 17 ft. shoal at Lat. $32^{\circ}17'440$ m., Long. $80^{\circ}42'700$ m., no longer exist. These are the only changes of importance north of Bay Point.

✓ A 26 ft. sounding was found at Lat. $32^{\circ}14'1580$ m., Long. $80^{\circ}40'520$ m. between 49 and 44 ft. soundings, and another 26 ft. sounding was found at Lat. $32^{\circ}14'1250$ m., Long. $80^{\circ}40'200$ m. between 45 and 53 ft. soundings, but no investigation was made of either spot. A 26 ft. sounding in this vicinity is of no great importance, but it may be the indication of a shoal, and the least water at both of these spots should have been determined.

✓ That part of Hyd. Sheet 3897 which overlaps this sheet agrees closely with it. The important overlapping soundings were transferred to this sheet and are in red. The curves are based upon the combined soundings.

Soundings are in feet.

Samuel Rosenberg
March 20, 1917.

Verified by J. P. Shklain.

Sheet of prominent objects detached
& filed in Chart Div. — Letter 712 (1917)