

4180

U. S. G. SURVEY
L. & A.
DEC 3- 1921
NO. NO.

Diag. Cht. No. 1239-2

4180

Form 504
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

State: *South Carolina*

11-5413

DESCRIPTIVE REPORT.

Hydro Sheet No. **4180**

LOCALITY:

Charleston Harbor

Priest Inlet to

Charleston Harbor

Entrance

181

CHIEF OF PARTY:

F. S. Bordin

DESCRIPTIVE REPORT
TO ACCOMPANY
HYDROGRAPHIC SHEET#

"A" ~~1000~~

CHARLESTON ENTRANCE TO RAGOON KEY, S.C.

LAUNCH ELSIE
JUNE-OCTOBER 1921

F.S. BORDEN
CHIEF OF PARTY

EXTENT. This report covers the hydrographic work done by the party on the launch ELSIE between Charleston S.C. and Raccoon Key. The work adjoins the off-shore survey of the Str. Bache to the eastward and the work of the Launch MIKAWA to the southward. It includes surveys in all of the inlets on this section of the coast.

CHANGES SINCE THE LAST SURVEY. The principal changes are those in the inlets and over the bars at the entrance to the inlets. The more important changes are described in detail as follows:

- (1) Rattlesnake shoal now has a least depth of nine feet. In addition to the lines run over this shoal which are shown on the sheet, considerable sounding was done without recording to find the least depth. Nothing less than nine feet was found.
- (2) Breach Inlet is practically closed up. The draw in the ~~bar~~ bridge is now untended. Only row boats ever go out over the bar.
- (3) There is now a least depth of about six feet at low water over the bar at Dewees Inlet. This inlet is by far the best of the inlets between Charleston and Bull Bay. It is very little used however except by local fishermen. The party on the Launch ELSIE worked considerably from this inlet.
- (4) There is about six feet of water over the Caper's Inlet bar but the entrance is narrow and there are many shoals spots inside the the bar which are dangerous because the seas do not break over them. The channel inside the bar is very narrow and is very close to the breaker line. In addition to the lines shown on the sheet a sounding line was run very close to the breakers in what is the only channel. There is nine feet on this line along side the breakers out as far as the bar where it drops to six feet.
- (5) There is also six feet over the Price Inlet bar. The channel here parallels the breaker line. The entrance however is very narrow.
- (6) Bull Harbor entrance has changed considerably. There is now about 10 1/2 feet over the bar instead of 13 as shown on the present chart. A shoal has built up off the east end of Bull Island. This shoal is about a quarter of a mile from the point and has a depth of two feet over it. It is very close to the channel but can always be identified by the breakers. A more direct passage into Bull Harbor and one that has the same amount of water is to enter on a west course with the east entrance point of Bull Island dead ahead. It is believed that the sea buoy should be moved from its present position to a point three miles ^{east} west of the east end of Bull Island. A direct course from the buoy to the point would take a vessel in the best water obtainable over the bar.
- (7) Bull Bay proper has shoaled up considerably since the last survey. Several small islands have built up in the middle of the Bay. Back of these islands only a half a foot of water can be carried from Bull Harbor to Harbor River. At high tide however boats drawing three and four feet can cross here. Many boats take advantage of the tides and cross Bull Bay to avoid the long trip through the inside passage.
- (8) There is now a depth of 7 feet over the bar and into Five Fathom Creek. This has deepened from the three feet shown on the present charts.

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ANCHORAGES. From observation made during the season the best anchorages in the area covered by this sheet are as follow:

1. In Bull Creek 300 meters west of Harrison's Wharf and just south of the small island which occupies the middle of the channel
2. Price Inlet. In Price Creek just south of where the inside passage crosses the creek.
3. Dewees Inlet. In Dewees Creek at the mouth of the small creek which divides Dewees Island from the marsh island to the westward.

These anchorages apply to small vessels only. For larger vessel good anchorage ground can be found in Bull Harbor just off the entrance to Jack's Creek.

INSIDE ROUTE. The inside passage from Charleston to the limit of the work covered by this survey is supposed to have a minimum depth of four feet. Except in a few places this depth is being maintained at the present time. The most difficult places in the inside passage at the present time are as follows:

1. Saltpond Creek. The upper part of the Creek is very tortuous and has several places in it where it has shoaled to less than four feet.
2. Santee Pass. At the third bend from Price Creek and at the point where the passage approaches Mark Bay the passage has shoaled to three feet. The bottom here however is extremely soft and boats drawing four feet have no difficulty in going through.
3. Bullyard Sound. Abreast beacons Nos. 24 and 26 the dredged cut has shoaled to 3 1/2 feet.
4. Sullivan's Narrows. Although there is four feet through Sullivan's Narrows the passage is difficult on account of the mud banks which have built out and which are covered at half tide. In going through Sullivan's Narrows the ebb tide bend should be very closely followed.

METHODS EMPLOYED. All sounding in this area was done by the launch ELSIE and the 24 foot motor sailing launch. Soundings as a rule were taken every fifteen seconds in water up to three fathoms and every twenty seconds up to five fathoms. The average speed was six miles an hour.

Respectfully Submitted,

F. S. Borden

F. S. Borden.

STATISTICAL SHEET TO ACCOMPANY
SHEET "A"
CHARLESTON TO PRICE INLET

DATE	LETTER	VOLUMES	POSITIONS	SOUNDINGS	MILES STATUTE	VESSELS
June 17	A	1	93	691	29.0	ELSIE
27	B	1	111	904	35.8	ELSIE
28	C	2	122	1002	41.0	ELSIE
29	D	2	65	539	20.1	ELSIE
July 8	E	3	88	692	24.9	ELSIE F
Aug. 1	F	3	37	374	11.5	ELSIE F
12	G	3 & 4	71	643	20.7	ELSIE F
26	H	4	7	39	1.2	ELSIE F
June 10	a	5	85	744	21.3	Motor Sailer F
15	b	5	36	221	9.2	" " F
16	c	5 & 6	104	935	24.1	" " F
25	d	6	40	310	9.2	" " F
July 26	e	6	11	60	9.5	" " NP
28	f	6	88	722	16.0	" " F
Aug. 1	g	6 & 7	71	676	19.2	" " F
12	h	7	27	267	6.9	" " F
15	j	7	32	178	4.2	" " F
16	k	7	47	398	8.9	" " F
Oct. 21	l	7	15 ¹¹⁵⁰	122 ⁹⁵¹⁷	3.9 ³⁰¹⁶	" " F
TOTALS			1150	9517	307.6	

COPY TO FIELD RECORDS.

Division of Hydrography and Topography:

Division of Charts:

Tide Reducers are approved in
7 volumes of sounding records for

HYDROGRAPHIC SHEET 4180

Locality: Price Inlet, Capers Inlet, Dewees Inlet, South Carolina.

Chief of Party: W. S. Borden in 1931

Plane of reference is mean low water, reading

2.2 ft. on tide staff at Dewees Inlet, off Lewees Island
4.9 " " " " " Harrison's Wharf, Bull Island.

Condition of records: Satisfactory.



Chief, Division of Tides and Currents.

Report on Verifying and Inking H4180

1. The work done on "i" day was not inked (day has but 11 positions) because of note, Volume 6 page 23 which states that area was later surveyed under better conditions.
2. The work from 71 to 156 was not inked because of note on page 50 Volume 7, saying the work was not done for charting purposes.
3. A sounding of 2^{PM} 1^{FT} taken at 9^h 27^m 45^s in Volume 5 page 10 is questioned, it was plotted or recorded.
4. The area was not closely developed but the work done showed care and accuracy were used in the survey. The records were clear and legible and the smooth sheet was carefully plotted. The crossings in most cases was very good. Every position was not numbered.

Frank M. Albert.

Part of this sheet was inked and verified by
R. L. Johnston.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
WASHINGTON

SECTION OF FIELD RECORDS
REPORT ON HYDROGRAPHIC SHEET No. 4180.
Surveyed in 1921.

Chief of Party: F. S. Borden. Surveyed by F. S. Borden.

Protracted by W. F. Malnate

Soundings plotted by R. L. Johnston, F. S. Borden & M. Leff.

Verified and inked by F. M. Albert and R. L. Johnston.

1. The records conform to the requirements of the General Instructions.
2. The plan and character of development fulfill the requirements of the General Instructions.
3. The plan and extent of development satisfy the specific instructions.
4. The sounding line crossings are adequate.
5. The development is sufficient for drawing the usual depth curves.
6. There are no important areas within the limits of the sheet that require further surveying. Additional development on the bars would have been desirable. Inside of the bar of Sapers Inlet there are no soundings for about one-third mile of the Channel. Also opposite to signal Ho in Price Inlet there is an inner bar, but the survey does not show the available depth over this inner bar. ✓
7. The character and scope of the surveying and the field drafting are excellent.
8. Reviewed by E. P. Ellis, January, 1922.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

The finished Hydrographic Sheet is to be accompanied by the following title sheet, filled in as completely as possible, when the sheet is forwarded to the Office.

U. S. Coast and Geodetic Survey.

Register No. **4180** FIELD LETTER **A**

State . **SOUTH CAROLINA**

General locality . . . ~~Coast~~ **Charleston Harbor**

Locality . . . **Charleston Harbor Entrance to Price Inlet**

Chief of party . . . **F.S. Borden**

Surveyed by . . **F.S. Borden**

Date of survey . **June - August, 1921**

Scale **1:20000**

Soundings in . . **Feet**

Plane of reference . **Mean Low Water- Staff at Dewees Inlet**

Protracted by **Em. Malnate** . Soundings in pencil by **F.S.B. and M.L. and N.L.J.**

Inked by **J.M.A. & R.L.J.** . Verified by **J.M.A. & R.L.J.**

Records accompanying sheet (check those forwarded):

Des. report, **3** Tide books, **4** Marigrams, **1** Boat sheets,

7 Sounding books, _____ Wire-drag books, _____ Photographs.

Data from other sources affecting sheet

Remarks:

- * Descriptive Report also covers work on sheet "B"
- * The four tide books also cover sheet "B"

Applied to compilation of New Chart # 491.

April 23, 1935 J. H. S.