

5130

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Form 504
Ed. June, 1928

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

State: South Carolina

DESCRIPTIVE REPORT

Topographic } Sheet No. 2 5130
Hydrographic }

LOCALITY

Fort Royal Sound, S. C.

South Half

19..51

CHIEF OF PARTY

C. A. Egner

DESCRIPTIVE REPORT

TO ACCOMPANY

HYDROGRAPHIC SHEET NO. 1

SOUTH HALF OF PORT ROYAL SOUND

SOUTH CAROLINA

AUTHORITY:

This survey was made in accordance with General Instructions for Project No. 73, dated January 13, 1931.

LIMITS:

The area covered extends along the north-east shore of Hilton Head Island across the entrance to Skull Creek, along Pinckney Island across the entrance to Mackay Creek and along Colleton Neck for a distance of one mile. The survey extends off shore for about one mile on the east end of the sheet and about two miles on the west end.

This sheet joins Sheet No. 3 on the East and Sheet No. 1 at Skull Creek and Mackay Creek.

METHODS:

All the sounding was done with the hand lead, the usual methods being employed. The general system of lines was normal to the beach, spaced about 200 meters apart. Fifty meter lines were run in the approach channel to Skull Creek.

The shoals encountered were developed by a system of parallel lines along the axis of the shoal, spaced about 50 meters.

CONTROL:

The signals used were located by topography and third order triangulation.

DANGERS:

A shoal about 200 meters wide and one mile long parallels the shore line about 0.8 mile off shore, the N.W. end of which lies one mile east of Triangulation Station ROCKS . Shoalest water $4\frac{1}{2}$ feet. ✓

A shoal, the east end of which is marked by a red bell buoy, lies off the first point N.E. of the entrance of Skull Creek about $\frac{3}{4}$ mile. Least water near the buoy is 16 feet, but this shoal extends to Daw Island, part of which bares at L.W. ✓

Between the above mentioned shoals is the inside passage channel about one half mile wide, least water 27 feet. ✓

The least water in the entrance channel to Skull Creek is 17 feet. ✓

COMPARISON WITH
PREVIOUS SURVEYS:

There seems to be little or no change since the last survey, either of the shoals or channels.

ANCHORAGES:

There appears to be good holding ground throughout the entire area of the sheet where there is sufficient water to anchor. For vessels not drawing over 7 feet, there is a good anchorage just south of Beacon North (North entrance Skull Creek.)

STATISTICS:

Positions	1607
Soundings	8017
Statute miles of sounding lines	198.3
Area in square statute miles	13.2

Respectfully submitted,

George R. Shelton
George R. Shelton
Lieut. (j.g.)

Approved and forwarded:

C. A. Egner
C. A. Egner Chief of Party

STATISTICS FOR HYDROGRAPHIC SHEET # 2

Date 1931	Volume	Boat	Stat. mi. of sndg. lines	No. of sndgs.	No. of positions	Day
April 9	1	Launch	23.0	749	146	a
10	1	Launch	15.9	502	96	b
14	1	Launch	10.0	312	70	c
14	2	Launch	7.6	283	57	c
15	2	Launch	23.0	758	154	d
May 6	2	Launch	15.2	540	101	e
7	3	Launch	15.5	541	102	f
8	3	M/sailer	19.6	717	169	g
11	3	M/sailer	8.4	336	67	h
11	4	M/sailer	7.2	315	67	h
12	4	M/sailer	22.3	1183	223	j
18	5	Launch	6.5	304	58	k
22	5	Launch	16.0	1022	203	l
June 10	6	M/sailer	8.1	455	94	m

TOTALS..... 198.3 8017 1607

Section of Field Records

Sheet No 5130

Surveyed in 1931

Chief of Party C. A. Egner

Surveyed by E. M. Shelton

Protected by E. M. Shelton

Soundings plotted by C. A. Egner
and W. F. Deane

Verified & Indexed by E. M. Shelton

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 sounding line crossings are adequate.

4. The usual depth curves can be completely shown within the limits of the sheet.

5. The field plotting was completed to the extent prescribed in general instructions.

IN REPLY ADDRESS THE DIRECTOR
U. S. COAST AND GEODETIC SURVEY
AND NOT THE SIGNER OF THIS LETTER

AND REFER TO No. 82-DRM

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

WASHINGTON

SECTION OF FIELD RECORDS

Review of Hydrographic Sheet No. 5130

Port Royal Sound, South Carolina

Surveyed in 1931

Instructions dated January 13, 1931 (NATOMA)

Chief of Party, C. A. Egner

Surveyed by G. R. Shelton

Protracted by G.R.S.

Soundings plotted by C.A.E. and W. F. Deane

Verified and inked by G. C. McGlasson

1. Records - The records are in conformity with the Hydrographic Manual with the exception that the tide reducers were not entered to the nearest half foot as required by paragraph 134 and that an insufficient number of bottom characteristics were recorded. In the last four volumes in a total of close to 5000 soundings only one bottom characteristic is noted.
- ✓ 2. Specific instructions -
 - (a) The work in general is in conformity with the instructions. However, it is believed that several charted shoals from the 1916 survey (H. 3898) should have been further investigated although no indication of their existence was found on the regular system of lines. These will be mentioned in greater detail in succeeding paragraphs.
 - (b) A further development should also have been made of the 30 foot shoal in lat. $32^{\circ} 14'.8$, long. $80^{\circ} 40'.55$. The least depth found on this shoal on the 1916 survey (H. 3898) is 28 feet and from a study of the two surveys it appears that the shoal has been very stable. The 28 feet therefore has been carried forward to the new survey.
 - (c) The 27 foot sounding in lat. $32^{\circ} 15'.1$, long. $80^{\circ} 40'.7$ should also have been further examined. This sounding, although considerably shoaler than the surrounding depths is neither confirmed nor disproved by the 1916 survey, since it falls within a blank area on that survey.

(d) While a satisfactory junction has been effected with the 1916 survey as contemplated by the specific instructions, the work should have been extended to include an examination of the charted 18 foot shoal in lat. $32^{\circ} 15'.9$, long. $80^{\circ} 40'.8$. The authority for this shoal is H. 3898 and while fully verified on that survey, there is a possibility that on account of its exposure to current action, some changes may have taken place. The survey of 1892 (H. 2119) shows 12 feet on this shoal which corresponds to an 11 foot sounding in the approximate locality from the survey of 1862 (H. 831).

15
H5564

3. Crossings - The sounding line crossings are generally adequate.

4. Field drafting - The usual amount of field drafting was accomplished and no particular difficulty was experienced in the verification.

✓ 5. Junctions with contemporary surveys - The junctions with H. 5117 and H. 5119 are adequate.

✓ 6. Comparison with old survey - A comparison has been made with H. 3898 (surveyed in 1916) and in general a good agreement is indicated. Some changes are noted in the outer ends of the spits, noticeably the spit making out from the south entrance point to Skull Creek and the spit to the northward of Bell Buoy No. 2. The former has built out about 200 meters while the latter has receded about 400 meters. The new survey satisfactorily joins the survey of 1916 at its eastern end. There are, however, several shoal soundings on the 1916 survey that were not found on the new survey on the regular system of lines, and were not further investigated. They are as follows: (See Note by A.M. Sobieralski, at end.)

(a) A 28 foot sounding in lat. $32^{\circ} 16' 900$ m., long. $80^{\circ} 42' 410$ m., on H. 3898 (pos. 145-146 d) surrounded by depths of 37 to 48 feet. There are two 28 foot soundings recorded although only one is plotted on the sheet. The new survey shows similar depths but no shoal sounding.

(b) A 26 foot sounding on H. 3898 in lat. $32^{\circ} 14' 1240$ m., long. $80^{\circ} 40' 220$ m. (pos. 135-136 f) falls between a 53 and a 45 foot sounding on the old survey. The position on the new survey would fall in corresponding depths. The sounding is marked D.K. in the records.

(c) A 26 foot sounding on H. 3898 in lat. $32^{\circ} 14' 1580$ m., long. $80^{\circ} 40' 510$ m. (pos. 143 f) falls in depths of about 50 feet on the old survey. These depths correspond to the depths on the new survey. Although the sounding is not verified by another sounding nor is it O.K.'d in the old records, it appears just as logical as the above two soundings.

Verified
A 9365

These soundings have been transferred to the new survey (H.5130) and are shown thereon in green. It is recommended that they be retained on the charts.

There are no modern surveys to the north of this sheet, the latest being the survey of 1859 (H. 679). No comparison has been made with this.

- ✓ 7. Additional work - No additional work is recommended, since it is possible that the Army Engineers' survey in Beaufort River will include the 18 foot shoal mentioned in paragraph 2(d) above.
- ✓ 8. Miscellaneous - A 9 foot sounding was obtained on line 96-97 j in lat. $32^{\circ}17'890$ m., long. $80^{\circ}44'1050$ m., between two 21 foot soundings. A detailed examination of the area on the later day (1 day) failed to disclose any such depths, nor is any such depth indicated on the 1916 survey. The sounding was therefore omitted.

9. Reviewed by A. L. Shalowitz.

✓ In addition to the soundings mentioned under 6(a), 6(b) and 6(c), there are other soundings which have not been investigated, making it necessary to use H. 3898 in conjunction with the new survey in compilation of chart.

Sept. 1, 1932.

A. M. Sobieralski

Approved:

A. M. Sobieralski
Chief, Section of Field Records

H. Borden
Chief, Section of Field Work

G. H. de

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. 5130.....

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

Number of positions on sheet	1607
Number of positions checked	322
Number of positions revised	18
Number of soundings recorded	8017
Number of soundings revised	197
Number of signals erroneously plotted or transferred	None

Date: Feb. 24, 1932.....

Cartographer: E. M. Blinn.....

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

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REG. NO. 5130

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. 2

REGISTER NO. 5130

State South Carolina

General locality Port Royal Sound

Locality South Half Port Royal Sound

Scale 1:10,000 Date of survey April-June, 1931

Vessel M. V. NATOMA

Chief of Party C. A. Egner

Surveyed by G. R. Shelton

Protracted by _____

Soundings penciled by C. A. E. & W. F. D.

Soundings in ~~fathoms~~ feet

Plane of reference M. L. W.

Subdivision of wire dragged areas by _____

Inked by [Signature]

Verified by [Signature]

Instructions dated January 13, 1931

Remarks: _____