

4481

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Form 501	
DEPARTMENT OF COMMERCE	
U. S. COAST AND GEODETIC SURVEY	
State: <u>Georgia</u>	
11-5813	
DESCRIPTIVE REPORT.	
Hydrographic	Sheet No. <u>4481</u>
LOCALITY:	
<u>Georgia Coast</u>	
<u>Wassaw Sd. + Savannah R. Ent.</u>	
1925	
CHIEF OF PARTY:	
<u>F.S. Borden</u>	

DESCRIPTIVE REPORT
to accompany
HYDROGRAPHIC SHEET
No.....
(Field Letter " L ")
WASSAW SOUND AND
SAVANNAH RIVER ENTRANCE
GEORGIA.
STEAMER BACHE
F.S. Borden, Comdg.

DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC SHEET

No.....

(Field Letter "L")

WASSAW SOUND AND

SAVANNAH RIVER ENTRANCE

GEORGIA

Steamer BACHE

F.S. Borden, Comdg.

EXTENT

This sheet comprises a survey of Wassaw Sound and approaches and a survey of the Savannah River Entrance. It adjoins sheet "K" to the southward, the off shore sheet to the eastward and overlaps a survey made in 1920 to the northward. Work was carried back into Wassaw Sound until a junction had been made with the older surveys. The survey was carried northward from the south end of Tybee Island as far as the Savannah River Entrance at the request of the U.S. Engineers.

CHANGES

The most apparent change which has taken place in this locality is in the vicinity of Wassaw Sound. The channel over the bar has shifted to the southward. This change has resulted in the shoaling the water outside of the bar. The critical depth over the bar however remains about the same.

The pear shaped shoal north of the Savannah River is tending to shift to the southward and is only kept from encroaching on the channel by constant dredging.

The area north of latitude 31°-59' was surveyed at the request of the U.S. Engineers. This section of the survey overlaps a survey of the area made in 1920. The Engineers were interested in knowing whether the pocket south of the shoal at the north end of Tybee Island has deepened since the last survey. Considerable erosion is taking place in the vicinity of OYELL and it was felt that this might be due to the fact that the water had deepened and was allowing heavier storm waves to reach the beach. The pocket is practically the same as shown by the last survey.

ACCURACY

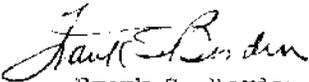
Although in general the sounding crossings are good, several bad crossings will be found on the sheet. The most important ones are indicated on the sheet with notes regarding the weight to be given to the soundings. It is believed that the majority of these are due to sounding inaccuracies, caused by choppy seas which prevailed on certain days when the work was done. The sounding of 21 feet between 32 and 33 C (blue), which is shown 1 mile east of the Savannah River Entrance front range is undoubtedly an error of the leadsmen and should be one fathom lower.

Over two small areas indicated on the sheet it was impossible to run lines on account of breakers. One of these lies about one mile east of the north end of Tybee Island. This spot has been seen awash on low spring tide and probably has about one foot of water on it at mean low tide. The other spot lies about 2 miles east by south of the south end of Tybee Island. This has approximately 2 feet of water over it at mean low tide.

LOST SOUNDING RECORD.

Sounding volume NO 2 (launch) was lost when the launch in which sounding party was leaving camp burned, near the south end of Petit Chau Island. Fortunately the volume lost contained only a small amount of work. The volume lost contained soundings taken on "C" day (red) and covered sounding lines over the shoal, bare at low water, which lies west of POD. this work can be seen on the boat sheet

Respectfully submitted,


Frank S. Borden.

* 31° 59', 80° 49'

Statistics Sheet No.
(Field Sheet "L")

Date, 1925	Letter	Volume	Positions	Soundings	Miles Statute	Vessel	
May 25	A	1	42	244	11.0	SHIP	
29	B	1	11	60	3.5	SHIP	
June 1	C	1	90	496	24.5	SHIP	
" 2	D	1	99	487	24.0	SHIP	
" 3	E	2	50	238	12.5	SHIP	
" 4	F	2	15	71	2.5	SHIP	
" 5	G	2	71	372	17.0	SHIP	
" 8	H	2	36	185	9.0	SHIP	
" 10	I	2	82	354	12.0	SHIP	
" 10	J	3	29	108	9.0	SHIP	
" 11	K	3	35	135	6.0	SHIP	
" 17	L	3	87	280	14.0	SHIP	
April 8	A	1	140	707	32.5	Lch. No. 2	2
" 9	B	1	142	536	28.0	" "	2
" 20	D*	3	34	150	6.5	" "	1
" 22	E	3	107	416	16.5	" "	1
" 23	F	3	32	111	4.0	" "	1
" 29	G	3	119	643	30.0	" "	1
" 30	H	4	7	26	1.0	" "	1
May 1	I	4	7	29	1.0	" "	1
" 25	K	4	141	538	26.1	" "	1
June 1	L	4	161	651	35.2	" "	1
" 1	M	5	4	21	1.1	" "	1
" 2	N	5	213	918	44.3	" "	1
" 3	O	5	87	381	19.3	" "	1
" 3	P	6	34	139	5.8	" "	1
" 4	Q	6	28	133	4.3	" "	1
" 5	R	6	133	474	21.5	" "	1
" 8	S	6	100	416	20.5	" "	1
" 9	T	6	10	37	2.2	" "	1
" 9	U	7	164	681	33.8	" "	1
" 10		7	152	606	32.3	" "	1
" 11		8	87	337	13.4	" "	1
TOTAL			2556	10980	524.3		

* Note: Volume No. 2, X day, was lost when Lch. No. 2 burned, Apr. 15.

NOV 12 1925

~~Division of Hydrography and Topography:~~

Division of Charts:

Tide reducers are approved in
10 volumes of sounding records for

HYDROGRAPHIC SHEET NO. 4481

Locality: **Coast of Georgia**

Chief of Party: **F. S. Borden in 1925**

Plane of reference is

0.0 ft. on tide staff at Tybee
0.4 " " " " " Wassaw

For reduction of soundings, condition of records satisfactory
except as checked below:

1. Locality and sublocality of survey omitted.
2. Month and day of month omitted
3. Time meridian not given at beginning of day's work.
4. Time (whether A. M. or P. M.) not given at beginning of day's work.
5. Soundings (whether in feet or fathoms) not clearly shown in record.
6. Leadline correction entered in wrong column.
7. Field reductions entered in "Office" column.
8. Location of tide gauge not given at beginning of each day's work.
9. Leadline corrections not clearly stated.
10. Kind of sounding tube used not stated.
11. Sounding tube No. entered in column of "Soundings instead of "Remarks".
12. Legibility of record could be improved.
13. Remarks.



Chief, Division of Tides and Currents.

Hydrographic Sheet #4481
Massaw Sound and Savannah River Entrance
Georgia.

The work shown on this sheet covers a large area and while the work may be sufficient for all practical purposes yet a large number of open areas appear which would have cleared up some of the apparent erratic curves had additional lines been run.

The projecting and plotting very good but not errorless.

Crossings coincide closely except in places referred to in Descriptive Rept.

John D. Torrey
1/2/26.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

WASHINGTON January 14, 1926.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4481

Wassaw Sound and Savannah River Entrance, Ga.

Surveyed in 1925

Instructions dated May 8, 1924 and Jan. 20, 1925.

Chief of Party, F. S. Borden.

Surveyed by F. S. B., C. A. Egner and I. Rittenberg.

Protracted by B. G. Jones and G. M. Marchand.

Soundings plotted by G. M. Marchand.

Verified and inked by J. D. Torrey.

1. The records conform to the requirements of the General Instructions except for the use of capital letters in launch work in the sounding records and on the smooth sheet.
2. The plan and character of development conform to the requirements of the General Instructions, except for the fact that the sounding interval is 30 seconds throughout the entire survey, although the depths are such that 15 and 20 second intervals should have been adhered to most of the time.
3. The plan and extent of development satisfy the specific instructions.
4. The sounding line crossings are adequate.
5. The information is sufficient for drawing the depth curves.
6. The usual field plotting was done by the field party.
7. The junctions with the adjoining sheets are satisfactory. The overlaps along the outer edge with H. 3983 surveyed in 1917 shows practically no change along the junction. ✓
8. No further surveying is required within the limits of the sheet. ✓

9. Better definition of the channels would have been obtained if there had been more cross sounding lines.
10. The character and scope of the surveying and field drafting are good.
11. Reviewed by E. P. Ellis, January, 1926.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4481

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. 1114

(S) REGISTER NO. 4481

State Georgia

General locality Georgia Coast
~~Wassaw Sound and Savannah River Entrance~~

Locality Wassaw Sound & Savannah River Entrance

Scale 1:20000 Date of survey May - June 11²⁵, 1925

Vessel Steamer BACHE

Chief of Party Frank S. Borden

Surveyed by C. A. Eger, F. S. Borden, I. Rittenberg

Protracted by B. C. Jones, G. M. Marchand

Soundings penciled by G. M. Marchand

Soundings in ~~fathoms~~ feet

Plane of reference M.L.W.

Subdivision of wire dragged areas by

Inked by J. D. Torrey

Verified by

Instructions dated May 22, 1924

Remarks: