

# 4152

Diag. Chf. No. 1240-2

# 4152

Form 504	
DEPARTMENT OF COMMERCE	
U. S. COAST AND GEODETIC SURVEY	
State: <i>South Carolina</i>	
11-5913	
DESCRIPTIVE REPORT.	
<i>Regd.</i> Sheet No.	4152
LOCALITY:	
<i>St. Helena Sound</i>	
<i>Entrance and Mouth</i>	
<i>of South Edisto River</i>	
1920	
CHIEF OF PARTY:	
<i>R. T. Luce</i>	

Descriptive Report to Accompany  
Hydrographic Sheets No. 4152 and 4153.  
Instructions Dated July 9, 1920.

**General Description of Coast.**

The coast line covered in these sheets extends from Port Royal Sound eastward to Framptons Inlet. It is a lowlying coast without distinctive, outstanding features consisting in the main in sand beaches backed by a thin fringe of oaks, pines, and palmettos. Back of the trees and on the banks of the creeks and slugs the country is largely swamp land.

**Outlying Dangers and Islands.**

There are no islands off this coast and no new outlying dangers were discovered.

**Inshore Dangers, Bars, and Channels.**

The only inshore dangers consist of the bars and shoals at the mouths of the channels and inlets. Port Royal Sound is amply buoyed and lighted. St. Helena Sound is buoyed but can not be entered at night because none of the buoys are lighted. There is a channel for boats of less than 5' draft into Franchards Inlet and for boats of 10' draft into the South Edisto River but neither of these channels is well buoyed and would be difficult for the stranger to find. In fact most boats would have nothing to gain by using these channels. All the other inlets are blocked by bars on which the sea breaks in any but calm weather and therefore are no use to boats at all.

**Changes of Coastline or Depth.**

There have been many changes in the coastline but these are taken up in detail in the descriptive report covering the topographic sheets. Many changes in depths and shiftings of shoals were discovered also, perhaps the most noticeable one being the finding of 16 to 18 feet of water where breakers were shown on previous charts. This was on the northeast bank of St. Helena Channel about opposite the second nun buoy from the outside entrance.

**Survey Methods.**

The usual methods of hydrographic surveying were employed, both the Mikaw and a 24 foot motor sailer being used to advantage. The control consisted of numerous signals located by planetable traverse which was tied in frequently to triangulation

thus insuring the accuracy. In the vicinity of the South Edisto River it was found necessary to locate several of the signals by triangulation. All the covered was completed and should require no further examination. A section of the work in St. Helena Sound, off Hunting Island, was not taken up owing to the weather conditions and will be done in the 1921 season.

TABLE OF STATISTICS.  
To Accompany Hydrographic Sheets No. 4152 & 4153.

Date 1920	Letter	Vol.	Positions	Soundings	Miles Stat.	Vessel	Sheet
Sept. 2,	A	1	29	161	8.4	Mikawa	4153
" 8	B	1	90	404	33.3	"	"
" 9	C	1	111	566	30.5	"	"
" 14	D	1&2	57	384	17.3	"	"
" 28	E	2	123	613	33.2	"	"
Sept. 21	a	1	61	199	7.2	Launch	4153
" 22	b	1	137	347	13.7	"	"
" 23	c	1& 2	311	894	33.6	"	"
" 24	d	2	43	176	6.5	"	"
" 29	e	2	59	197	6.5	"	"
Oct. 4	f	2	51	300	8.1	"	"
" 5	g	3	196	801	30.1	"	"
" 25	h	3	14	42	1.6	"	"
" 26	j	3	102	531	22.8	"	"
Oct. 21	a	1	37	155	7.3	Launch	4153
" 22	b	1	139	448	17.9	"	"
" 25	c	1	34	139	4.5	"	"
Nov. 1	d	1	63	290	11.6	"	"
" 5	e	1& 2	155	737	31.7	"	4153
" 8	f	2	90	396	15.6	"	"
" 9	g	3	170	737	30.3	"	"
" 10	h	3	100	450	17.9	"	"
" 22	j	3	111	433	16.9	"	"
" 24	k	4	58	320	9.0	"	"
Dec. 1	m	4	93	356	16.8	"	"
" 2	n	4	18	84	3.5	"	"
" 3	p	4	135	696	32.8	"	"
" 6	r	5	126	558	27.2	"	"
" 7	s	5	11	40	1.9	"	"
" 9	t	5	130	598	31.3	"	"
" 10	u	5	11	43	3.0	"	"
" 13	v	6	63	399	16.2	"	"
Dec. 7	A	1	13	47	2.3	Mikawa	4152
" 15	B	1	26	107	5.3	"	"
TOTALS			1333	6499	283.0		4153
			1308	5901	260.7		4152

Field Record Section.

Report on inking & verifying H 4152

Mar. 10, 1921.

This sheet presented no unusual characteristics. The protracting and plotting were good. The records were legible.

The area is characterized by deep in shoal spots and vice versa.

The control at the seaward ends of the lines was weak. A descriptive report and table of statistics has not yet been submitted.

Frank M. Albert.

AND REFER TO NO. 4-MEM

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

WASHINGTON

SECTION OF FIELD RECORDS.

REPORT ON HYDROGRAPHIC SHEET No. 4152.

Surveyed in 1920.

Chief of Party: R. F. Luce.

Surveyed by R. F. Luce and  
R. D. Horne.

Protracted and Soundings plotted by P. A. Perrin.

Verified and inked by F. M. Albert.

1. The records conform to the requirements of the General Instructions, except that in no case is there a record that the lead line was tested at the end of the day's work. Too soft a pencil was used in recording. The beginnings and endings of sounding lines should have been described in the "Remarks" column. The boat's courses should have been noted more frequently.
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. The survey at its southwestern end should have been extended a little closer to the edge of St. Helena Sound Channel. At this locality there is a slight gap between sheets 4152 and 3667, and several shoals having 5 to 11 feet on the edge of the channel do not have their limits fully defined.
4. The sounding line crossings are adequate.
5. The development is sufficient to permit the usual depth curves to be drawn, except in the place noted in paragraph 3.
6. The field plotting was completed to the extent prescribed in General Instructions.
7. The office draftsman did not have to do over again any work done by the field party.
8. ✓ The junction with offshore hydrographic sheet 3926 is excellent.
9. No further surveying is required within the area covered by the survey.
10. The character and scope of the surveying and field drafting are all excellent.
11. Reviewed by E. P. Ellis, April 23, 1921 and two copies of this report to be sent to Division of Hydrography and Topography.

DIRECTOR  
ADDRESS THE SUPERINTENDENT  
U. S. COAST AND GEODETIC SURVEY

AND REFER TO NO. 41/VFB

D U P L I C A T E  
DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

WASHINGTON February 2, 1921.

Division of Hydrography and Topography:

Division of Charts:

Tidal reductions are approved in  
7 volumes of sounding records for

HYDROGRAPHIC SHEET 4152

St. Helena Sound to Frampton's Inlet, S.C.  
R. F. Luce in 1920

Plane of reference is  
Mean low water, reading

3.6 ft. on tide staff at Peters Point  
5.9 ft. " " " " St. Pierre Creek

Condition of records: Satisfactory.



Chief, Division of Tides and Currents.

DIRECTOR  
ADDRESS THE SUPERINTENDENT  
U. S. COAST AND GEODETIC SURVEY

AND REFER TO No. 41/VFB

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

WASHINGTON February 2, 1921.



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Plane of reference is  
Mean low water, reading

3.6 ft. on tide staff at Peters Point  
5.9 ft. " " " " St. Pierre Creek

Condition of records: Satisfactory.

A handwritten signature in cursive script, appearing to read "G. T. Rude".

Chief, Division of Tides and Currents.

P. S. Sounding books have been forwarded  
by this Division to Captain Luce.



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. 4152

State South Carolina . . . . .

General locality St. Helena Sound . . . . .

Locality Entrance and Mouth of South Edisto River

Chief of party R. F. Luce . . . . .

Surveyed by R. F. Luce & R. D. Horne . . . . .

Date of survey 1920 . . . . .

Scale 1:20000 . . . . .

Soundings in Feet . . . . .

Plane of reference Mean low water . . . . .

Protracted by P. A. Perrin Soundings in pencil by P. A. P.

Inked by F. M. Albert . Verified by F. M. Albert . . . . .

Records accompanying sheet (check those forwarded):

Des. report, \_\_\_\_\_ Tide books, \_\_\_\_\_ Marigrams, 3 Boat sheets,

7 Sounding books, \_\_\_\_\_ Wire-drag books, \_\_\_\_\_ Photographs.

Data from other sources affecting sheet . . . . .

Remarks: Title sheet - H.E.M.

applied to chart 793 April 11, 1936 - H. MacEwan