

4513

File →

4513

Contains Des. Rep
for 4521 also
4522

4513

Form 504

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

State: South Carolina.

11-5613

DESCRIPTIVE REPORT.

Hydrographic Sheet No. *A* **4513**

LOCALITY:

Cape Romain

1925

CHIEF OF PARTY:

L.C. Wilder

APR 1 1925

~~Division of Hydrography and Topography:~~

Division of Charts:

Tide reducers are approved in
7 volumes of sounding records for

HYDROGRAPHIC SHEET NO. 4513

Locality: South Carolina

Chief of Party: L. C. Wilder in 1925

Plane of reference is M L W
3.4ft. on tide staff at Cape Romain

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.

E.C.

ADDRESS THE DIRECTOR
U. S. COAST AND GEODETIC SURVEY

AND REFER TO NO. 11-DRM

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

WASHINGTON August 18, 1926.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4513

Cape Romain, South Carolina

Surveyed in 1925.

Instructions dated June 12, 1925 (L. C. Wilder)

Chief of Party, L. C. Wilder.

Surveyed by L. C. W.

Protracted and soundings plotted by F. B. Quinn.

Verified and inked by H. R. Edmonston.

1. The records conform to the requirements of the General Instructions except that no notations as to beginnings and endings of lines were given. Also a sounding interval of 30 and 45 seconds was used in depths varying from 1 to 5 fathoms, which is greater than that prescribed under Paragraph 225 of the General Instructions. For an explanation of this see page 4 of the Descriptive Report for this sheet.
2. The plan and character of development conform to the requirements of the General Instructions.
3. The plan and extent of the survey satisfy the specific instructions.
4. The sounding line crossings are adequate.
5. The information was sufficient for drawing the usual depth curves.
6. The usual field plotting was done by the field party.
7. The junctions with the older surveys H. 4179 and H. 3761 are satisfactory. The junction with the contemporary survey H. 4522 will be taken up in the review for that sheet.
8. No additional survey work is immediately necessary, but it should be observed that it would have been desirable to have a few more soundings over the bar at the entrance to Cape Romain River which lies southwest of the south end of Cape Island. Additional devel-

Hyd. 4573

Note; This descriptive report covers three sheets executed by this party. As I have been requested to forward this first sheet as soon as possible before the completion of the second and third sheets, there may be a few changes effecting the two incompletd sheets as least depths on shoals, etc which I shall make in the descriptive report upon the completion of these two sheets. I shall see that these changes are made in the enclosed copy before the remaining sheets are forwarded.

L. C. Weller

opment is also desirable in the area between Cape Romain and the offshore end of Cape Romain Shoal and particularly over the 9 ft. spot (Lat. 32° 58' 800 m., Long. 79° 19' 750 m.)

9. Attention is called to the fact that the area in the vicinity of the charted 6 ft. spot (Lat. 32° 59' 700 m., Long. 79° 19' 750 m.) appears to have deepened several feet. The least water obtained in the vicinity of the 6 ft. spot is 12 ft., but inasmuch as the lines were spaced 1/4 mile apart and the development insufficient, it is recommended that the 6 ft. spot be retained on the charts.
10. Character and scope of surveying and field drafting - very good.
11. Reviewed by A. L. Shalowitz, July, 1926.

This descriptive report is submitted to cover hydrographic surveys executed in conformation with instructions dated June 12, 1925 and extending from the east side of Bull Bay to and including North Inlet, South Carolina; three sheets executed by the party of the Launch Mikawo during the summer of 1925. Hydrography was carried back from the seacoast up rivers, bays and creeks for a distance of three to four miles to a junction with and as near as possible a check with earlier surveys. The work extended off-shore to a junction with Hydrographic Sheet No. 3761 as far north as the jetties at the entrance to Winyah Bay and thence out to the five fathom curve.

GENERAL DESCRIPTION OF COAST.

This stretch of coast offers no particularly prominent or distinguishing features outside of man-made structures. The coast, in general, is low and is wooded north of the South Santee River. Wooded areas give points on the coast no distinguishing marks. A point on the coast in the vicinity of \odot Man, two miles south of North Inlet, where dunes with an elevation of about twenty feet and the wooded area commences extend from this point southward, offers some prominence from a small vessel coasting at a distance not in excess of five miles off-shore.

Objects of some prominence are discussed in the descriptive reports covering the topographic sheets of this area; also detailed descriptions of coast in vicinity of entrances to rivers and bays are taken up in a report covering coast pilot notes.

DANGERS, BARS AND ANCHORAGES.

Cape Romain and East Bank shoals were thoroughly developed; 7 feet and 10 feet being the least water found on these shoals. The area between the off-shore end of Cape Romain shoal and Cape Island could have been developed more thoroughly but as current and wind producing moderate seas rendered hydrography difficult and need for further development did not warrant the necessary expenditure of operations here, this development was not made. It is believed that there are no breakers outside of the six foot curve in moderate weather over this area. Cape Romain shoal however breaks in a moderate swell at low tide. East Bank shoal was not seen to break.

The shoal about one and one half miles east of A Dune was never seen to break.

The wreck shown off the entrance to North Inlet is a ship's steam engine. It bares at one quarter tide.

The bar at the entrance to Romain River, south-west of the south

end of Cape Island discloses a least sounding of 6 feet in the best channel over the bar. A moderate sea or swell and moderate breezes kick up a heavy sea in the vicinity of this bar, particularly on the shoal on the south-east side of the channel which makes out from Cape Island in a southwesterly direction. This channel should be attempted only in a smooth sea. The bar will break in the channel at low tide in a moderate sea.

The entrance into Cape Romain harbor from the north and east offers the best course for making Cape Romain Harbor or River from the out-side. There is no distinct bar to cross but as there is 6 to 10 feet of water throughout most of the channel heavy seas for small craft prevail in moderate weather. Wind and current here produce moderate to heavy seas.

The bar at the entrance to the South Santee River is variable in depth and ordinarily under any conditions except those of high tide and a smooth sea, should not be attempted. Entrance into the river can be made only by passing between breakers or shoals which very nearly break at high water. This should be attempted only by one with local knowledge and a vessel drawing not more than three to five feet. At lower low water the bar bares nearly across the mouth of the river.

There is no distinct bar at the mouth of the North Santee River. Entrance should be made from the south-east avoiding a 7 foot spot just inside of the twelve foot curve. Approach from the south of this shoal spot, north and east of which there is semblance of a bar or an area of shoaler water.

The middle ground between the ends of the jetties at the entrance to Winyah Bay has shoaled considerably since rather recent surveys; a part of it now bares at low water. This middle ground is building out in an easterly direction beyond the east end of the south jetty. A 3½ foot spot was found 200 meters south of the middle of the off-shore leg of the north jetty and an 8 foot spot south of the off-shore end of this jetty. This 8 foot spot produces a line of conspicuous tide rips on the ebb tide when a small sea prevails out-side.

The entrance to North Inlet through the south channel can best be achieved by following the appearance of the water. At the bar is a 2 foot spot which breaks in a moderate sea or in a small sea at low water. Passage should be made north of this and south of the bare shoal which makes out from the wreck shown. This bar is very choppy at certain stages of the wind, tide and sea. The area south of this channel into North Inlet is a mass of breakers baring at low water in places. To the north of the channel a narrow low water spit makes out as shown.

Anchorage can be found in the Romain River for small craft north of the Light-house dock. The bottom in the river is very soft mud and does not make a good holding bottom. There is but a foot of water at the face of the dock at low water. Good anchorage ground can be found in Mud Bay abreast or just north of the entrance to Mill Den. The bottom here is rather firm mud. Cape Romain Harbor is unsafe for small craft anchorage in bad weather.

In the South Santee River a fair anchorage can be found off o Nick. This place is inclined to get choppy with the wind and tide opposing; further up the river anchorage can be made off o Pete or o Pan. The North Santee River offers several good anchorages for small craft; one near o No on the north side of the river, another abreast of o Rut near the south-west side of the river and another near the mouth of the river. The bottom is fair for holding purposes being composed of mud and sand.

Good holding ground for larger vessels can be found in the lower part of Winyah Bay from Georgetown Light-house to the south end of North Island near the western channel range. For smaller vessels the best anchorage is close to the eastern side of the bay from the light-house to a point

about two thirds of a mile north of same.

In North Inlet a good anchorage can be had west of the island which separates the north and south entrances to the inlet and about one third of a mile north of the south end of this island. There is good holding ground here.

CURRENTS AND TIDE RIPS.

Currents in the Romain River, the North and South Santee Rivers and in the entrance to North Inlet vary from one to two knots during the middle of the ebb. Flood currents do not attain the velocity of the ebb. These currents, as elsewhere, are augmented or diminished by wind and range of tide. With a fresh breeze in opposition to the flow of the current seas of a size dangerous to the navigation of small craft prevail in these channels. Cape Romain Harbor and the channel leading from the eastward into same does not experience currents of a greater magnitude than one and one-half knots but becomes very nasty with the full ebb and a stiff north-east or easterly breeze. Maximum currents of this general locality are experienced between the outer ends of the jetties at the entrance to Winyah Bay where they attain a velocity of four knots at times. This is one of the worst if not the most difficult entrance on the Atlantic Coast; a stiff easterly breeze at full ebb kicking up a sea very dangerous to all small craft and demanding very careful piloting on the part of those bringing in larger vessels. Coupled with heavy seas produced by wind and current are those which roll in over the middle ground at the entrance and continue on in between the jetties. The south jetty channel lies so close to the south jetty that a slight error in judgement coupled with the set of the ebb current flowing over the south jetty and the drift from north-easterly or northerly winds may bring a ship to grief. This entrance should be attempted only in favorable weather. Heavy tide rips have been observed in moderate weather at the ends of the jetties at the entrance to Winyah Bay, the heaviest within a radius of about three hundred meters of the east end of the north jetty. A marked line of tide rips prevails on the foot spot about one fifth of a mile south of the east end of the north jetty. Indications are that this shoal is a sand ridge about two hundred meters in length dropping off sharply at each end and on the sides of same.

Tide rips and seas running in different directions in moderate to heavy weather prevail in passing from North Inlet into Jones Creek. The worst conditions for piloting being experienced just before the turn to the eastward in made at the entrance to Jones Creek where the vessel is exposed to seas coming in over the foul ground to the westward. This state of the seas, however, is diminished greatly at low tide by this foul ground which bares at that stage of the tide.

SURVEY METHODS.

All hydrography conforms to rules layed down in the instructions. Certain shoals baring at low water were located by walking same with a

sextant. On field sheets B and C zig-zag lines were run up the beach of North Island at times when the visibility was low and work could not be otherwise expedited.

The South Jetty and middle ground channels at the entrance to Winyah Bay were not sounded out as it is maintained and surveyed annually by the U.S. Engineers.

Soundings on the three sheets were generally spaced 30 seconds apart, variation in the distances being accomplished by use of a drag thrown overboard when the spacing needed diminishing. This method was used either because the recorder was more prone to become confused in making his record by diminishing the time interval or because the officer recording was also taking left angles.

The wreck shown in the south jetty channel at the entrance to Winyah Bay has probably been removed. At the time of this survey about 30 feet of her masts showed above high water.

The south side of the shoal between the outer ends of the jetties was not developed sufficiently to get a good determination of the 12 foot curve. The need for more development here was seen but weather prevented the work. It is very choppy in the vicinity of this shoal in almost all weather.

The line of soundings 26-35H (Launch Mikawe) is shown on the boat sheet about 50 meters south of the line as plotted on the smooth sheet. This line passed just north of the bell buoy at the entrance to Winyah Bay. This difference was caused by an error in the plotting of Δ Hat on the boat-sheet and due to the difference in the resulting plotting an undeveloped area just north of the channel is left on the smooth sheet.

Respectfully submitted,

L.C. Wilder

Chief of Party.

L. C. Wilder

Date 1925.	Letter	Volume	Positions	Soundings	Miles Stat.	Vessels
July 17	a	1	29	145	7.0	Launch
July 21	b	1	45	176	13.0	Launch
July 23	c	1	27	109	5.0	Launch
July 24	d	1	79	332	18.2	Launch
July 28	e	1 & 2	131	546	40.5	Launch
July 29	f	2	149	643	36.0	Launch
July 30	g	2	56	207	12.0	Launch
August 3	A	1	85	373	21.5	Mikawe
August 4	h	2 & 3	86	401	21.0	Launch
August 5	j	3	169	725	37.0	Launch
August 6	k	3	109	406	27.0	Launch
August 7	B	1	131	579	35.0	Mikawe
August 11	l	4	155	578	30.0	Launch
August 12	m	4	105	365	18.5	Launch
August 14	n	4 & 5	136	555	30.0	Launch
Sept. 28	C	1	32	158	8.0	Mikawe
Sept. 29	D	1	22	95	5.5	Mikawe
October 7	E	2	42	20	10.0	Mikawe
October 7	p	5	12	44	2.5	Launch
October 12	F	2	68	288	13.0	Mikawe
Totals			1668	7026	390.7	

Plane of Reference - Mean Low Water Soundings plotted on the smooth sheet in even feet. Automatic tide gauge located at Cape Romain Light House Dock. For the reduction of all inside soundings readings as recorded by this gauge were used; for reducing all outside soundings curves were drawn with the high and low waters 15 minutes earlier than the Romain gauge and with the same range. Changes were made from the Romain curve to the curves 15 minutes earlier than Romain at the bar at the mouth of the Romain River and on a line from the point on Cape Island at signal Cape to the point at the north-east side of the mouth of Cassino Creek.

Plane of reference - staff at Cape Romain 3.4
 Lowest tide observed 2.00
 Highest tide observed 10.0

(Field Sheet B)

Date 1925	Letter	Volume	Positions	Sdgs. Miles Stat.	Vessel
August 27	a	1	153 630	34.0	Launch
Sept. 9	b	1	105 426	23.5	"
" 10	c	1 & 2	155 593	31.0	"
" 11	d	2	54 186	11.0	"
" 14	A	1	100 419	26.0	Mikawe
" 15	e	2	77 426	21.5	Launch
" 17	f	2 & 3	82 376	19.0	"
" 18	B	1	118 602	35.0	Mikawe
" 21	C	1	68 344	18.0	"
" 22	g	3	72 306	16.0	Launch
" 23	h	3	9 37	2.0	"
" 24	j	3	132 589	32.0	"
" 25	k	3 & 4	97 342	20.0	"
October 8	l	4	70 247	13.0	"
" 9	m	4	62 200	9.0	"
" 9	D	2	46 234	13.5	Mikawe
" 12	E	2	28 160	9.5	"
" 13	n	4	135 582	30.0	Launch
" 14	p	4 & 5	65 276	15.0	"
" 16	F	2	107 552	27.0	Mikawe
" 27	G	2	65 307	18.0	"
November 7	H	3	64 246	13.0	"
" 9	J	3	100 407	20.5	"
" 11	q	5	106 270	17.5	Launch
" 14	r	5	110 398	20.0	"
" 25	K	3	15 47	2.0	Mikawe.
TOTALS			2195 9193 497.0		

Plane of Reference - Mean Low Water . Soundings plotted on the sheet in feet. Automatic gauge at Cape Romain and a staff located in the North Santee River and one at Georgetown Light-house dock. A portable gauged located on the south jetty at the entrance to Winyah Bay. This gauge gave little results.

Mean low water at Romain	3.4
" " " " South Jetty	3.0
" " " " Crow Island, N. Santee River	4.9
" " " " Georgetown L.H.	3.5

Curves for the reduction of outside soundings drawn from readings at South Jetty or for South Jetty gy comparison with Romain. In the North and South Santee River a curve representing the mean between Crow Island and Romain was used. In Winyah Bay curves representing three different areas were drawn from South Jetty and Georgetown L.H. curves.

Date 1925	Letter	Volume	Position	S'd'gs	Miles stat	Vessel
October 28	a	1	62	360	20.0	Launch
November 5	b	1	68	240	10.0	Launch
" 6	a (gross)	1	69	231	15.0	Mikawa
" 6	c	1	117	511	30.5	Launch
" 16	d	1	97	329	16.0	Launch
" 17	e	2	109	411	26.0	Launch
" 18	f	2	26	64	2.0	Launch
" 20	g	2	92	281	16.0	Launch
" 23	h	2	19	52	2.5	Launch
TOTALS			659	2479	138.0	

Plane of reference Mean Low Water. Soundings plotted on the smooth sheet in even feet. Automatic Tide gauge located at Cape Romain Light House Dock. A staff located in North Inlet. All outside soundings reduced from a curve drawn to represent curves at the South Jetty at the entrance to Lynnh Bay. Inside soundings reduced from readings obtained on the staff in North Inlet.

Plane of Reference staff at Romain 3.4
 " " " " in North Inlet 2.2

Lowest tide observed at Romain 2.0
 Highest tide " " " 10.0

Curves for the deduction of outside soundings drawn from the North Inlet curves using the same range but 10 minutes earlier.

Coast of South Carolina

Launch Makawe 1925.

CAPE ROMAIN RIVER

The channel from the south-west into the river is unmarked and difficult. There is 6 feet of water over the bar at low water and the bar and channel are very rough under any weather conditions except those of a smooth sea and calm to light breezes. This channel should not be attempted except when absolutely necessary or by one possessing local knowledge. In a smooth sea at high tide with knowledge of the channel this entrance may be undertaken with vessels drawing not over six or seven feet. The bar should be crossed on a course of $46\frac{1}{2}$ degrees true with the south-west tangent of the south end of Cape Island dead ahead. This end of the island, however, offers no landmarks or natural ranges and the tangent is hard to pick up. At the best crossing of the bar there is six feet of water at low tide. A long shoal makes out from the south-west end of Cape Island close to the south-east side of the channel. At the bar crossing the water over this shoal is but little less than the depth at the crossing. The line of breakers on this shoal serves as a guide for piloting, once the bar is crossed, as it breaks over its entire length almost to the bar crossing in almost all weather. Once the bar is crossed the channel is narrow and shoal water on both sides should be avoided. The bottom on the bar and in the channel are hard sand and undoubtedly are shifting in character. In the river follow the chart keeping about mid-channel and avoiding the large bight in Cape Island just north of its south end. At this point keep well over towards the island on the port hand. The best anchorage is north of the dock at the Light-house. There is but a foot of water at the dock at low water.

ENTRANCE INTO CAPE ROMAIN HARBOR. FROM THE NORTH OF CAPE ISLAND

This entrance is a more favorable means of getting into inside waters in this immediate locality. Local knowledge is also needed here in passing in. The least depth into Romain Harbor is 5 feet (7 feet if a small detached 5 and 6 foot spot can be avoided.) and the sandy bottom is undoubtedly shifting in character. The channel becomes very choppy in moderate to heavy weather. When bound inside departure should be taken from the black can buoy off the entrance. From here steer about NW true until the 6 foot curve is crossed or approached; haul to the south-westward heading about for the end of the point of Cape Island at the Cape but negotiate the channel by soundings keeping between the 6 foot curves. Abreast of the point of Cape Island at \odot Bird the channel narrows and must be followed carefully as the sides of the channel shoal rapidly to 2 to 4 feet, particularly on the port hand about half way between these two points on Cape Island. Round the point of Cape Island at \odot Cape at a distance of 150 yds and head for the channel north-west of Marsh Island hauling far enough to the south to avoid the shoal water at the north-west side of the channel. The shoal at the north-east entrance to the channel north-west of Marsh Island has a least depth of 3 feet at low water.

In coming into Cape Remain Harbor there are no natural ranges to be picked up. The point of Cape Island at \odot Bird and at \odot Cape are low; the former sandy and the latter grassy to the high water mark. Both front range beacons on the ranges entering and leaving the channel north-west of Marsh Island are gone.

SOUTH SANTEE RIVER ENTRANCE

The shoal across the mouth of the South Santee River bares at lower low water leaving no channel into the river.

NORTH SANTEE RIVER ENTRANCE.

This entrance may be negotiated in a smooth sea at high tide with vessels drawing not more than 6 to 7 feet. There is a least depth of 6 feet on what might be termed the bar, an extension of the shoaler water to the north and east of the crossing. There are no prominent marks here to aid in entering. A sand dune about 15 feet in height at Δ Tee offers some prominence and if seen may be used with trees in background as a range in entering. The entrance should be approached on about a 12° degree (true) course with the sand point at Δ Tee dead ahead. The $1/2$ foot spot, the southwest end of a shoal making down from the northward, should be given a good berth, a crossing being made to the westward of this shoal. When abreast of the shoal on the starboard hand south of the sand point at Δ Tee haul to the northward and continue mid-channel. On the ebb strong currents flow in the channel and when current and wind are opposing or in a heavy or moderate sea the bar and channel are very rough.

WINYAH BAY ENTRANCE.

Small craft entering Winyah Bay southbound may enter by the north channel thus avoiding the necessity of putting out around the middle ground to enter by the south channel. In entering by the north channel leave the red buoy at the east end of the north jetty on a course for the south jetty channel rear range beacon - hold this course until about 250 yards south of the jetty in order to avoid the 4 foot and eight foot shoals south of the jetty, then haul to the west and head for the middle ground rear range beacon holding this course until the channel is reached. In most weather heavy tide rips will be experienced near the east end of the north jetty.

ENTRANCE TO NORTH INLET.

The bar at the north entrance to North Inlet nearly bares at low water and since the south channel furnishes a much easier means of gaining entrance into the inlet it should not be attempted. The south channel has a least depth of 5 feet on the bar at low water. There is another

5 foot spot just inside of the bar. Two small groups of trees, one group at O How and another a short distance S of O Bob assist in picking up this entrance from one or two miles offshore. The dunes on the island between the two entrances offer some prominence. These dunes terminate suddenly at a point about 150 meters from the south end of the island. The south end of this island is a low high water sand spit. The bar and channel are very rough in bad weather and should be attempted only in favorable weather. A 2 foot spot on the bar should be avoided by passing north of same on a course of 350 degrees (true) watching carefully the appearance of the water which serves as the best guide in following the channel. This course should lead south of the line of breakers making out from the spit at the south end of the island. This spit bares at low water. Pass about 150 yards south of a wreck the engine of which may be seen at one half tide. (Other parts of the wreck have disappeared) Here haul to the westward and follow the low water spit on the starboard hand keeping about 50 yards to the south of same. If bound inside to the westward of the island between the entrances follow the low water spit in to the south end of the entrance island passing close by the west side of its south end, then set course to pass about 50 yards of the next small point to the north so as to avoid the middle ground to the westward which bares at low water. Undoubtedly this channel into North Inlet is very changable and local knowledge should be acquired before using this channel except when necessary. If bound south into Jones Creek, from the south-west end of the island between the two entrances head between the marsh point of North Island and the foul ground - keep about 75 yards off the high water line of the marsh when approaching the turn to the westward as a low water spit makes out about 40 meters. At the turn haul sharply to the westward and follow the west side closely.

From the point just south of the island between the entrances at North Inlet if bound into Town Creek set a course about 100 yards off the point of marsh to the south-west of the middle ground avoiding a 2 foot shell bank off this point. This 2 foot spot can usually be located by the rips and whirls.

MISCELLANEOUS COAST PILOT NOTES IN THE GENERAL LOCALITY OF FIELD OPERATIONS OF THIS PARTY.

Jones Creek is rather foul from Noble Creek to a point about one half mile from its entrance into Winyah Bay. Throughout this section of its length are a number of mud and oyster shell shoals most of which have stakes driven into them as markers. Six feet can be carried throughout its length at high water but it should not be attempted with a draft of more than 3 or 4 feet without a good knowledge of the channel.

Town Creek is very foul particularly as you are approaching Oyster Bay when southbound, although local people keep most of the shoals marked by stakes. At low water parts of the channel very nearly bare.

There are no storm warnings displaced on South Island in Winyah Bay as noted in the present Coast Pilot.

Range beacons have been established on the northwest side of the channel northwest of Little Crow Island in the North Santee River; established for guidance in crossing the 5 foot spot shown on the chart. These beacons are placed on the bank just north of the west end of the 6 foot curve to the north east of this 5 foot spot. The range leads about 350 meters off the north-west end of Little Crow Island.

The banks of Pleasant Creek, the inside route between the North and South Santee Rivers are growing up with marsh grass so that in many places the creek is less than 20 feet wide.

A vessel 60 feet in length has difficulty in making many of the turns without stopping and backing. A similar condition exists in the western part of Six Mile Creek.

Respectfully submitted,

L.C. Wilder
L.C. Wilder.

Chief of Party.

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 (A) 4513

4513

State . . . South Carolina

General locality Cape Romain

Locality Cape Romain

Chief of party L.C. Wilder

Surveyed by L.C. Wilder

Date of survey July ^{17- Oct 12} ~~August~~ 1925

Scale 1:20000

Soundings in Feet

Plane of reference Mean Low Water

Protracted by F.B. Quinn. . Soundings in pencil by F.B. Quinn.

Inked by Verified by

Records accompanying sheet (check those forwarded):

Des. report, Tide books, Marigrams, Boat sheets,

7 Sounding books, Wire-drag books, Photographs.

Data from other sources affecting sheet

1 cahier Reducer Curves

Remarks:

applied to ^{new} chart 787 July, 1937

J.S.P.

4521

(See Des. Rept. 4513)

4521

Form 504 DEPARTMENT OF COMMERCE U. S. COAST AND GEODETIC SURVEY
State: S. Carolina
11-5613
DESCRIPTIVE REPORT.
Hyd. Sheet No. C 4521
LOCALITY:
S. Car. Coast
North Inlet to Vic. of Winyah Bay
1925
CHIEF OF PARTY:
L.C. Wilder

STATISTICS SHEET NO. *-----

Field sheet "C"

Date 1925	Letter	Volume	Position	S'd'gs	Miles stat	Vessel
October 28	a	1	62	360	20.0	Launch
November 5	b	1	68	240	10.0	Launch
" 6	a (green)	1	69	231	15.0	Mikawe
" 6	c	1	117	511	30.5	Launch
" 16	d	1	97	329	16.0	Launch
" 17	e	2	109	411	26.0	Launch
" 18	f	2	26	64	2.0	Launch
" 20	g	2	92	281	16.0	Launch
" 23	h	2	19	52	2.5	Launch
TOTALS			659	2479	138.0	

Plane of reference Mean Low Water. Soundings plotted on the smooth sheet in even feet. Automatic Tide gauge located at Cape Romain Light House Dock. A staff located in North Inlet. All outside soundings reduced from a curve drawn to represent curves at the South Jetty at the entrance to Winyah Bay. Inside soundings reduced from readings obtained on the staff in North Inlet.

Plane of Reference staff at Romain 3.4
 " " " " in North Inlet 2.2

Lowest tide observed at Romain 2.0
 Highest tide " " " 10.0

MAR 30 1926

~~Division of Hydrography and Topography:~~

Division of Charts:

Tide reducers are approved in
3 volumes of sounding records for

HYDROGRAPHIC SHEET NO. 4521

Locality: South Carolina

Chief of Party: L. C. Wilder in 1925

Plane of reference is M L W

2.2 ft. on tide staff at North Inlet
3.4 " " " " " Cape Romain

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.

Report on Verification and Inking H. 4521.

The records and notes are excellent. The field drafting was complete and very well done.

For notes on obstructions and courses for entering channels see descriptive report H 4513.

April 10, 1926

F. M. Albert, Cartographer,
Section of Field Records.

Note the 2 foot sounding
Lat 32° 19' 9"
Long 79° 10' 1"

ADDRESS THE DIRECTOR
U. S. COAST AND GEODETIC SURVEY

AND REFER TO NO. 11-DRM

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
WASHINGTON May 6, 1926.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4521

Vicinity of North Inlet, S. C.

Surveyed in 1925.

Instructions dated June 12, 1925 (L. C. Wilder)

Chief of Party, L. C. Wilder,

Surveyed by L. C. W.

Pretracted by F. B. Quinn.

Soundings plotted by L. C. W.

Verified and inked by F. M. Albert.

1. The records conform to the requirements of the General Instructions.
2. The plan and character of development conform to the requirements of the General Instructions.
3. The plan and extent of the survey conform to the requirements of the specific instructions.
4. The sounding line crossings are adequate.
5. The information is sufficient for drawing the usual depth curves.
6. The usual field plotting was done by the field party and was found to be accurately executed.
7. The only contemporary survey that joins this sheet is H. 4522 on the south. The junction will be considered in the review of that sheet.
8. No further surveying is required within the limits of this survey.
9. Attention is called to the detached 2' spot about 70 meters off-shore at the entrance to Town Creek (lat. 32° 19'.9, long. 79° 10'.1)
10. The character and scope of the surveying and the field drafting are excellent.
11. Reviewed by A. L. Shalowitz, May, 1926.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4521

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. C
Field Sheet C
REGISTER NO. 4521

State South Carolina

General locality " " Coast

Locality North Inlet to Vic. of Winyah Bay

Scale 1:20,000 Date of survey Oct-Nov 23 ²⁸ 1925

Vessel Launch Mikawe

Chief of Party L.C. Wilder

Surveyed by L.C. Wilder

Protracted by F.B. Quinn

Soundings penciled by L.C. Wilder

Soundings in ~~fathoms~~ feet

Plane of reference Mean Low Water

Subdivision of wire dragged areas by _____

Inked by F.M. Albert

Verified by F.M.A.

Instructions dated June 12 1925, 192

Remarks: _____

applied to ^{new} chart #787, June 10, 1937

J.S.L.

4522

(See Des. Rept. 4513)

Form 504 DEPARTMENT OF COMMERCE U. S. COAST AND GEODETIC SURVEY	
State: <u>S. Car.</u>	
11-5613	
DESCRIPTIVE REPORT.	
Hyd.	Sheet No. <u>B 4522</u>
LOCALITY:	
<u>S. Car. Coast</u>	
<u>Winyah Bay to S. Santee R.</u>	
1925	
CHIEF OF PARTY:	
<u>L. C. Wilder</u>	

4522

APR 8 1926

Division of Hydrography and Topography:

✓ Division of Charts:

Tide reducers are approved in
volumes of sounding records for
4522

HYDROGRAPHIC SHEET NO.
South Carolina

Locality:

L. C. Wilder in 1925.

Chief of Party:

M L W

Plane of reference is **South Jetty, Winyah Bay**
3.5 ft. or tide staff at **Georgetown**
3.4 " " " " **Cape Romain**
4.9 " " " " **North Santee River**

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.

P. Schureman

Acty Chief, Division of Tides and Currents.

STATISTICS SHEET NO. -----
(Field sheet B)

Date 1925	Letter	Volume	Positions	Soundings	Miles stat.	Vessel
August 27	a	1	153	630	34.0	Launch
Sept. 9	b	1	105	426	23.5	"
Sept. 10	c	1 & 2	155	593	31.0	"
Sept. 11	d	2	54	186	11.0	"
Sept. 14	A	1	100	419	26.0	Mikawe
Sept. 15	e	2	77	426	21.5	Launch
Sept. 17	f	2 & 3	82	376	19.0	"
Sept. 18	B	1	118	602	35.0	Mikawe
Sept. 21	C	1	68	344	18.0	"
Sept. 22	g	3	72	306	16.0	Launch
Sept. 23	h	3	9	37	2.0	"
Sept. 24	j	3	132	580	32.0	"
Sept. 25	k	3 & 4	97	342	20.0	"
October 8	l	4	70	247	13.0	"
October 9	m	4	62	200	9.0	"
October 9	D	2	46	234	13.5	Mikawe
October 12	E	2	28	160	9.5	"
October 13	n	4	135	582	30.0	Launch
October 14	p	4 & 5	65	276	15.0	"
October 16	F	2	107	552	27.0	Mikawe
October 27	G	2	65	307	18.0	"
November 7	H	3	64	246	13.0	"
November 9	J	3	100	407	20.5	"
November 11	q	5	106	270	17.5	Launch
November 14	r	5	110	398	20.0	"
November 25	K	3	15	47	2.0	Mikawe
Totals			2195	9193	497.0	

Plane of Reference Mean Low Water. Soundings plotted on the smooth sheet in even feet. Automatic tide gauge located at Cape Romain Light House Dock and a portable gauge on the south jetty at the Entrance to Winyah Bay; a poor record obtained from the gauge on the jetty. All outside soundings referred either to observed curves at the jetty gauge or curves drawn for this station by comparison with Romain. Soundings east of a north and south line through signal Three, between the jetties, were also referred to the staff at the south jetty. All soundings in the North and South Santee Rivers reduced from curves drawn and representing the mean between Romain and Crow Island staff tides. The area inside of the jetties west of a north and south line through signal Three was divided into three sections and curves interpolated between the curves at the jetty and those at Georgetown Light House Dock drawn to represent these three respective sections. See boat-sheet for these sections.

Plane of Reference at Romain	5.4
" " " at Georgetown Light House Dock	3.5
" " " at staff in North Santee River	4.9
" " " at staff on the South Jetty	3.0
Lowest tide observed at Romain	2.0
Highest tide observed at Romain	10.0

Report on Inking and Verifying N. 4522.

The records and notes are excellent. The field drafting was completed as specified in the General Instructions and was very well done. The depth curves could be completely drawn.

F. M. Albert

S.R.

ADDRESS THE DIRECTOR
U.S. COAST AND GEODETIC SURVEY

AND REFER TO NO. 11-DRM

DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY

WASHINGTON

September 21, 1926.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4522

Vicinity of Winyah Bay, South Carolina

Surveyed in 1925

Instructions dated June 12, 1925.

Chief of Party, L. C. Wilder.

Surveyed by L. C. W.

Protracted by B. Williams and L. C. Wilder.

Soundings plotted by F. B. Quinn.

Verified and inked by F. M. Albert.

1. The records conform to the requirements of the General Instructions except that beginnings and endings of lines were not given.
2. The plan and character of development conform to the requirements of the General Instructions.
3. The plan and extent of the survey conform to the requirements of the specific instructions except as follows:
 - a. The south side of the middle ground shoal at the entrance to Winyah Bay was insufficiently developed.
 - b. The entrance to the South Santee River was not completely developed.
 - c. The 11 ft. shoal (authority H. 350 surveyed in 1852) now charted in Lat. $33^{\circ} 05' 1/4''$, Long. $79^{\circ} 13'$, was not entirely disproved. The present survey shows an 18 ft. shoal in this position but with an insufficient development. A closer development should have been made here to verify the existence of the 11 ft. shoal.
 - d. The area in the vicinity of the charted 15 ft. spot (authority H. 3761 surveyed in 1914) in Lat. $33^{\circ} 05'$, Long. $79^{\circ} 12' 1/2''$ should have been developed, and the 18 ft. curve completely determined in this vicinity, including the 18. ft. sounding about 550 meters to the southeastward of the above mentioned 15.

4. The information is generally sufficient for drawing the usual depth curves except in the vicinities mentioned in Paragraph 3.
5. The sounding line crossings are adequate.
6. The usual field plotting was done by the field party and was well done.
7. The junctions with the contemporary surveys, H. 4521 and H. 4513, are satisfactory. The junctions with H. 3761 (1914) and H. 1318 (1876) are also satisfactory.
8. Attention is called to the fact that the survey shows no indication of the charted 10 ft. spot (authority H. 1318) in Lat. $33^{\circ} 13 \frac{1}{2}'$, Long. $79^{\circ} 11 \frac{1}{2}'$, nor of the charted 10 ft. spot (authority Engineers blueprint of 1903) in Lat. $33^{\circ} 12 \frac{3}{4}'$, Long. $79^{\circ} 11 \frac{1}{3}'$.
9. No further immediate surveying is required within the limits of this survey.
10. The character and scope of the surveying are very good. The field drafting is excellent.
11. Reviewed by A. L. Shalowitz, July, 1926.

April 28, 1927.

11

Division of Hydrography and Topography:

Division of Charts:

Tide reducers are approved in
4 volumes of sounding records for

HYDROGRAPHIC SHEET 4422A

Locality: S. E. ALASKA

Chief of Party: F. D. T. Stone
Plane of reference is M L L W
5.7 ft. on tide staff at American Bay.

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.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

222

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. (B) 4522

State South Carolina

General locality " " Coast

Locality ~~South Santee River to~~ Winyah Bay to S. Santee River

Chief of party L.C. Wilder

Surveyed by L.C. Wilder

Date of survey ^{Aug. 27} Sept. - ²⁵ November 1925

Scale 1:20 000

Soundings in feet

Plane of reference Mean Low Water

Protracted by B. Williams . Soundings in pencil by F.B. Quinn.

Inked by Verified by

Records accompanying sheet (check those forwarded):

Des. report, _____ Tide books, _____ Marigrams, _____ Boat sheets,

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

Data from other sources affecting sheet

Remarks:

applied to new chart 787 June 8, 1937 - J.S.L.