

5784

U. S. COAST & GEODETIC SURVEY
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Form 504
Rev. Dec. 1933
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
R. S. PATTON, DIRECTOR

DESCRIPTIVE REPORT

Topographic } Sheet No. 28
Hydrographic }

State South Carolina

LOCALITY

Cape Romain

~~Cape Romain~~
Muddy
Cape Island to Oyster Bay

1935

CHIEF OF PARTY

Lt. Benjamin H. King

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

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REG. NO.

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. 28

REGISTER NO. **5784**

State South Carolina

General locality ~~Charleston, S.C.~~ Cape Romain

Locality ~~Cape Romain~~ Cape Island to ^{Muddy}Oyster Bay

Scale 1:10,000 Date of survey ~~December~~ ¹⁹³⁴ February, 19 35

Vessel Party No. 19

Chief of Party Benjamin H. Rigg

Surveyed by J. B. Kinghorn

Protracted by C. J. Harryman

Soundings penciled by L. B. White, Jr.

Soundings in ~~fathoms~~ feet

Plane of reference M.L.W.

Subdivision of wire dragged areas by _____

Inked by Miss Bruakley

Verified by T. W. Cochran

Instructions dated October 10, 19 35

Remarks: _____

DESCRIPTIVE REPORT TO ACCOMPANY
HYDROGRAPHIC SHEET NO. 28

DATE OF INSTRUCTIONS - October 10, 1933.

SURVEYING METHODS - The positions were taken by the standard three-point sextant fix on signals located by planetable and triangulation. The soundings were taken while the launch was under way, with a hand lead line. The lead line was graduated in fathoms and feet in accordance with the standard method. Sounding lines were run on ranges when possible; when no ranges were available, lines were run by compass courses. In the creeks the lines were run following an estimated distance from the shore line. See notes in sounding records.

PURPOSE OF SURVEY - The purpose of this survey was to obtain data for compiling new Intracoastal Waterway charts, developing all natural waterways used as part of this canal, and developing all navigable tributaries of these waterways, particularly those leading to inlets along the coast. The inlets were developed to the extent that the sheet would allow, using the control available. An attempt was made to carry the new work to a point where the depth curves would agree with those on the present chart. Areas in the New Cuts were not developed because the U. S. Engineers have recent surveys, and at the time of this survey they were carrying on maintenance surveys for information preparatory to additional dredging where spoil banks had been washing into the New Cut.

No attempt was made to do hydrography in two small creeks, one known as Devil's Den, the other as Mill Den. These creeks are very unimportant as they end in mud and marsh islands that are of no importance.

DISCREPANCIES - None.

DANGERS - There is a sand bar that extends about 150 meters of the shore at Lat. $33^{\circ} 04.6'$, Long. $79^{\circ} 24.6'$. This bar is bare at very

nearly high tide. When covered, breakers will show over it.

There is a mud and sand flat that extends north from the high water line of Cape Island to a line between the point on the island, Lat. $33^{\circ} 03.3$, Long. $79^{\circ} 24.4'$, and the point Lat. $33^{\circ} 03.8'$, Long. $79^{\circ} 20.5'$. No hydrography was run closer to this flat than to a depth of one to two feet. This flat is bare at very nearly high water and there is no channel through it.

Also in two other places along Cape Island the same condition occurs. One in Lat. $33^{\circ} 01.5'$, Long. $79^{\circ} 21.3'$, the other in Lat. $33^{\circ} 00.5'$, Long. $79^{\circ} 21.5'$. These are also mud and sand flats.

CHANNELS - The controlling depth in "Alligator Creek" from the Intra-coastal Waterway, Lat. $33^{\circ} 06.8'$, Long. $79^{\circ} 20.9'$ to the mouth, Lat. $33^{\circ} 04.7'$, Long. $79^{\circ} 21.3'$ is three feet.

The controlling depth through Ramhorn Creek from Alligator Creek Lat. $33^{\circ} 05.1'$, Long. $79^{\circ} 21.4'$ through the ⁶ ~~Needles~~ ^{MILL CR.} south to Casino Creek, Lat. $33^{\circ} 04.0'$, Long. $79^{\circ} 22.7'$ is ^{1 1/2} ~~one~~ foot. The branch of Ramhorn Creek running north is of very little used as it goes through marsh lands and ends about 500 meters south of the Intracoastal Waterway.

The controlling depth through Casino Creek from the waterway, Lat. $33^{\circ} 06.5'$, Long. $79^{\circ} 23.4'$ to the mouth, Lat. $33^{\circ} 03.9'$, Long. $79^{\circ} 22.3'$ is four feet.

The controlling depth through Skrine Creek from Casino Creek, Lat. $33^{\circ} 05.3'$, Long. $79^{\circ} 24.1'$ to the fork at Lat. $33^{\circ} 04.8'$, Long. $79^{\circ} 24.7'$ is ^{G 1/2 W.A.B.} four feet, from this point down Congree Boat Creek to Casino Creek, Lat. $33^{\circ} 04.1'$, Long. $79^{\circ} 23.2'$ the controlling depth is five feet.

There is a small creek (not named) joining Congree Boat Creek at Lat. $33^{\circ} 03.9'$, Long. $79^{\circ} 24.2'$ with ^{Muddy} ~~Mud~~ Bay at Lat. $33^{\circ} 03.5$, Long. $79^{\circ} 24.2'$. ^{7 1/2} Five feet can be carried through this channel.

There is a controlling depth of thirteen feet through Horse Head Creek from ^{Muddy} Mud Bay to Cape Romain Harbor. Entering Horse Head Creek from ^{Muddy} Mud Bay, the controlling depth of the channel is two feet. The channel from Horse Head Creek crosses Cape Romain Harbor and continues to open water on the north end of Cape Island. This channel has a controlling depth of six feet to the limits of this sheet.

The controlling depth from Horse Head Creek to the Cape Romain Light House Wharf is two feet over a flat mud bottom.

Romain River has a controlling depth of two feet. This channel is very narrow.

From Romain River to sea through either of the adjoining inlets, the controlling depth is two feet. The only guide through these channels is a line of breakers.

COMPARISON WITH PREVIOUS SURVEYS (Chart No. 1238) - The comparison with the previous surveys (chart 1238) shows a general shoaling of almost the entire area covered by the sheet.

The controlling depth through Skrine Creek is five feet instead of nine feet as shown on the chart.

Horse Head Creek has a controlling depth of thirteen feet instead of fourteen feet.

The channel from ^{Horse Head Cr.} Mud Bay which crosses Cape Romain Harbor ^{Cape I. has} has moved built up to the north nearer to Cape Island and bends to the south at the extreme North point of Cape Island. The controlling depth is seven feet.

Cape Romain Harbor shows very little change in depth.

Romain River has shoaled very much since the previous survey which showed it as having a controlling depth of four feet. The controlling depth is now two feet. At the inlet at Cape Romain the channel is almost closed. The chart shows seven feet controlling depth from the Light-house Wharf to open water through this inlet, with seven feet at the

Probably runs into shoal water on the outside of Cape I. as shown on chart

VDB

(Key Inlet)

entrance. The inlet to the west of this shows no change. The controlling depth is now 2' with 2' at the entrance.

ANCHORAGES - There are no anchorages on this sheet. There is only one landing of any importance. This is the Cape Romain Light House Wharf, on Romain River. Attention was paid to developing a channel to this wharf from the dredged canal. There are also three inlets on the sheet which were developed to the limits of sheet.

GEOGRAPHIC NAMES - No name appears on chart No. 1238 of the small inlet to the west of Cape Romain, Lat. 33° 00.9', Long. 79° 24.1'. This inlet is known locally as Key Inlet.

TIDAL DATA - See attached report.

STATISTICS -

Vol. No.	Miles	Soundings	Positions
1	40.3	1801	534
2	41.7	1660	474
3	44.4	1439	462
4	54.6	1498	504
5	46.4	1532	497
6	25.1	759	299
	<u>252.5</u>	<u>8689</u>	<u>2770</u>

Respectfully submitted,

J. B. Kinghorn

J. B. Kinghorn

Forwarded by,

Lt. Benjamin F. Rice
Chief of Party.

Benjamin F. Rice

HYDROGRAPHIC SURVEY NO. 5784

Smooth Sheet 1

Boat Sheet 1

Sounding Records 6 Vols. _____

Descriptive Report Yes

Title Sheet Yes

List of Signals Yes in Vol. 1

Landmarks for Charts (Form 567) See Letter 459 (1935)

Statistics Yes

Approved by Chief of Party B. H. Rigg

Recoverable Station Cards (Form 524) _____

Special Chart for Lighthouse Service
(Circular Nov. 30, 1933) _____

Remarks _____

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. **5784**

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

Number of positions on sheet	2770
Number of positions checked	270
Number of positions revised	0
Number of soundings recorded	8689
Number of soundings revised	0
Number of signals erroneously plotted or transferred	0

Date: **7/17/35**
Verification by **M. S. Gurnee**
R. W. Cochran
Inked by **Miss Brinkley**
Review by **V. D. Behn**

Time: **2³**
30¹/₂
10 hrs
Time: **12 hrs.**

GEOGRAPHIC NAMES
S. CAROLINA

Date, May 27, 1935

Survey No. H5784

Chart No. 1238

Diagram No. 1238-2

Approved by the Division of Geographic Names, Department of Interior. *

Referred to the Division of Geographic Names, Department of Interior. R

Under investigation. Q

Status	Name on Survey	Name on Chart	New Names in local use	Names assigned by Field	Location
	<u>Intracoastal Waterway</u>	-----			
	<u>Alligator Creek</u> ✓	Same			
	<u>Ramhorn Creek</u> ✓	"			
	<u>Skrine Creek</u> ✓	"			
	<u>Casino Creek</u> ✓	"			
	<u>Mill Creek</u>	"			
	<u>Needles</u> ✓	"			
	<u>Mill Den</u>	"			
	<u>Horse Head Creek</u> ✓	Mud Bay			
	<u>Devils Den</u>	Same			
	<u>Cape Romain Harbor</u> *	"			
	<u>Cape Island</u>	"			
	<u>Mill Island</u> ✓	Marsh Island			
	<u>Romain River</u> ✓	Same			
	<u>Raccoon Key</u>	"			
	<u>Cape Romain</u> ✓	"			
	<u>Key Inlet</u> ✓	-----	Key Inlet		
	Horse -----	Horse Head			
	Oyster Bay	Oyster Bay *			
	<u>Congree Boat Creek</u> ✓				
			Muddy Bay	PR 5386	

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TIDE NOTE FOR HYDROGRAPHIC SHEET

June 19, 1935

Division of Hydrography and Topography:

✓ Division of Charts: Attention Mr. E. P. Ellis

Tide Reducers are approved in
6 volumes of sounding records for

HYDROGRAPHIC SHEET 5784

Locality Cape Island to Oyster Bay, Coast of South Carolina

Chief of Party: B. H. Rigg in 1934 - 1935

Plane of reference is mean low water, reading

2.9 ft. on tide staff at McClellanville;

8.3 ft. below B.M. 1

2.6 ft. on tide staff at Cape Romain

8.1 ft. below B.M. 1 (1925)

Height of mean high water above plane of reference is 5.1 feet
at McClellanville; 4.7 feet at Cape Romain

Condition of records satisfactory except as noted below:



Chief, Division of Tides and Currents.

July 11, 1935

Verifier's Report on H-5784

- 1.) The records conform to the requirements of the General Instructions.
- 2.) The usual depth curves can't be completely drawn because in some places they fall about on top of each other.
- 3.) The field plotting was completed to the extent prescribed in the Hydrographic Manual.
- 4.) The office draftsman did not have to do over any part of the drafting done by the field party.
- 5.) There is one contemporary adjacent sheet H-5802 but it is not available at present. - overlap completed and OK vdb
- 6.) Remarks:- All bottom characteristics had to be put in by the office draftsman

as the field party did not
plot them on the smooth
sheet.

Respectfully submitted,
R. W. Cochran

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5784 (1934-35) - FIELD NO. 28.

Cape Island to Muddy Bay, Cape Romain, South Carolina
Surveyed in December, 1934; February, 1935
Instructions dated October 10, 1933 (B. H. Rigg)

Hand Lead Soundings.

3 Point Fixes on Shore Signals.

Chief of Party - B. H. Rigg.
Surveyed by - J. B. Kinghorn.
Protracted by - C. J. Harryman.
Soundings plotted by - L. B. White, Jr.
Verified by - R. W. Cochran and M. S. Gurnee.
Inked by - Miss Brinkley.

1. Condition of Records.

The Records are neat and legible and conform to the requirements of the Hydrographic Manual.

The Descriptive Report is clear and comprehensive and adequately covers all matters of importance.

2. Compliance with Instructions for the Project.

This survey complies with instructions for the project.

3. Sounding Line Crossings.

Such cross lines as were run, as well as adjacent parallel lines, are in good agreement.

4. Depth Curves.

Within the limits of the survey the usual depth curves can be satisfactorily drawn.

5. Junctions with Contemporary Surveys.

The junction with H-5802 (1935) on the west is satisfactory.

At present there are no contemporary surveys immediately to the south and east of this survey.

6. Comparison with Prior Surveys.

H- 350 (1852), H-1238b (1874),
H- 626 (1857), H-1551 (1883).
H-1238a (1874),

A comparison between the above surveys and the present survey reveals numerous changes in depths and locations of shoals, as well as changes

in shorelines. Because of the time elapsed between the earlier surveys and the present survey and the general character of the area, it is unnecessary to consider these changes in detail, from the standpoint of information to be carried forward. The present survey should supersede the above surveys for charting purposes.

b. H-4513 (1925).

A comparison with this survey indicates that some change has taken place in this area. In view of this and because of the smaller scale of this survey, it should not be used for future charting within the limits of the present survey. Among the more important changes noted are the following:

- (1) Romain River has shoaled considerably.
- (2) The channel at the inlet just west of Cape Romain has practically closed.

There is fair agreement between the two surveys at the eastern limit of the present survey. However, as mentioned above, considerable change has taken place in the vicinity of Cape Romain at the southern limits of the present survey, in view of which it may be desirable to show a break in the hydrography on the chart, in this area, until new surveys are available.

7. Comparison with Chart No. 1238.

a. Hydrography.

Within the area of the present survey this chart is based on surveys discussed in the foregoing paragraphs, together with a U. S. Engineers Survey of 1923 (Sp. 19351). A comparison between this blueprint and the present survey indicates that changes have taken place in this common area. For this reason the Engineers' survey should be disregarded in future charting.

b. Aids to Navigation.

There are no floating aids to navigation within this area.

c. Controlling Depths.

The controlling depth of a portion of Casino Creek in vicinity of lat. 33°06.3', Long. 79°23.5' is charted as 4 feet (see letter 460/11 1933 from the U. S. Engineers). The present survey shows a controlling depth of 5½ feet through this part of the creek.

8. Field Plotting.

The field plotting and protracting are satisfactory and conform to the requirements of the Hydrographic Manual.

9. Additional Field Work Recommended.

This survey is complete except for several minor streams of no importance which were not surveyed. No additional work is required within its limits, however attention is called to the fact that there is a gap of approximately one mile between the eastern limits of the present survey north of lat. 33°04' and the western limits of H-5785 (1934-35). This area is covered by the survey of 1925, H-4513, which is in fair agreement with the above surveys.

10. Superseding Old Surveys.


Within the area covered, the present survey supersedes the following surveys for charting purposes:

H- 350	(1852)	in part.
H- 626	(1857)	" "
H-1238a & b	(1874)	" "
H-1551	(1883)	" "
H-4513	(1925)	" "

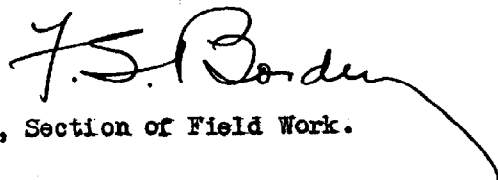
11. Reviewed by - V. D. Bahn, July 31, 1935.


Inspected by - R. L. Johnston, August 1, 1935.

Examined and approved:

C. K. Green, 
Chief, Section of Field Records.


Chief, Division of Charts.


Chief, Section of Field Work.


Chief, Division of H. & T.

25 Jan 2, 1936
C.B.

Applied to chart 836 Feb. 4, 1936 M.C.
Applied to new chart #787 June 1937 J.S.L.

Applied to chart 1238 G.H.S. Oct. 28, 1937