5717

Form 504
Rev. Dec. 1933

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

DESCRIPTIVE REPORT

~~Topographic~~ } Sheet No. 8 5717
Hydrographic }

State South Carolina

LOCALITY

Vicinity of St. Helena Sound

Johnson Creek to Skull Inlet

1934

CHIEF OF PARTY

R.P. Eyman

U. S. GOVERNMENT PRINTING OFFICE: 1934

5717

Form 537
Ed. Dec., 1930

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

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. 8

REGISTER NO. 5717

State South Carolina

General locality ~~Inland Waterway - Charleston - Savannah.~~ Vicinity of St. Helena Sound

Locality Johnson Creek, ~~Fripp and~~ to Skull Inlet.

Scale 1-10,000 Date of survey July - August, 1934

Vessel Motor sailer and Motor Launch.

Chief of Party Raymond P. Eyman

Surveyed by Geo. H. Everett

Protracted by C. J. Harryman

Soundings penciled by C. J. Harryman

Soundings in ~~fathoms~~ feet

Plane of reference M. L. W.

Subdivision of wire dragged areas by

Inked by C. E. ELDERKIN

Verified by "

Instructions dated November 2, 1933

Remarks:

U. S. GOVERNMENT PRINTING OFFICE: 1931

DESCRIPTIVE REPORT TO ACCOMPANY HYDROGRAPHIC

SHEET # 8 (Field number).

(a.) DATE OF INSTRUCTIONS, SCALE, AND LIMITS.

Authority for this work was contained in Instructions dated Nov. 2, 1933, Project HT -159. The scale is 1 - 10,000 and the limits of this sheet include Johnson Creek, Old House Creek, Fripps Inlet, and Skull Inlet.

The sheet joins with sheet #1 to the north and #2 to the northeastward. No further work was done this season on the outside in this area.

(b.) SURVEY METHODS.

The survey was made by means of a hand-lead sounding from the motor sailer and the ships launch, together with a skiff and outboard motor. Areas bare at low water were located by sextant topography.

In Old House Creek signal Tar was lost after the topo had been completed in this area. Since it was necessary to have a signal in this area, a new signal was set up at that place which showed evidence of having been the location of the original signal. Two sextant fixes (see vol. #1, page 2) were taken to check this location. The mean of the two fixes apparently checked the location of the old station and since a topographer checked the new signal with that of the original location by means of a cut from signal Fit at Skull Inlet it was assumed to be the same as original and so used.

The shortage of signals at Skull Inlet made it difficult to develop the mouth of the Inlet. The fix used outside of the inlet decreased in strength as the lines ran to S.W. The only visible right object was toofar off to give good control for that section.

There was also a shortage of signals in Johnson Creek and too much similarity of appearance among most of them. This latter fact made it difficult to identify just which signal had been the one reflected in the sextant mirror.

(c.) DISCREPANCIES.

Johnson Creek. Refering to 57b as mentioned elsewhere in this report it is probable that the recorders note as to the distance from the deck was an error in misunderstanding. It is improbable that the boat was 7 meters from the deck at the time of the fix. The coxswain had been told that the line would break on the near side of the deck. Upon taking the fix the boat swung to the right to resume the line on the outer end of the deck. There is no recollection that the boat hit the deck or had to come full astern to prevent hitting it as it would have had if the fix had been taken 7 m from the deck. It is believed that the recorder looked up after the boat turned passing along the deck about 7 meters off and entered the note 7 meters from the deck.

At 57b the angles were changeing rapidly, and plotting of fix indicates a difference of marking between observers. The locus of left angle favors a time check, and best position is obtained by plotting fix by left angle, course and time.

Pt. A rejected plotted on Left A course and time GKE.

Skull and Fripp Inlets. In work outside of the Inlets a heavy ground swell or rough sea was encountered at all times. This condition is probably the reason for some of the slight discrepancies in soundings on lines that cross, such as 25L to 26L and 116 k to 118k. However the bottom of Fripp Inlet was consistently hard and leadsman reported at end of day that they thought most of the irregular soundings were do to lumpy bottom. In walking around certain bars when bare at low tide and wading out from them this lumpy condition was really seem, especially between outer bars of Fripp Inlet. (see 72n to 81n)

(d.) DANGERS. (see elswhere in this report.)

(e.) CHANNELS. (see elsewhere in this report.)

(f.) ANCHORAGES.

Fair size boats and yachts can anchor inside Fripps Inlet if using the old inland waterway, however the currents are very strong. The other waterways are too limited for anchorage except for very small craft.

(g.) COMPARISON WITH PREVIOUS SURVEYS. (see elsewhere in this report.)

(h.) WIRE DRAG.

No drag work was done on this sheet.

(i.) GEOGRAPHIC NAMES.

The creek in which soundings were taken that empties into Fripp Inlet at lat. 32° 20'.3 long. 80° 28'.3 is called Old House Creek, a local name which has been used for years by the residents of that section.

Other names are from chart.

(j.) STATISTICS. (a table of statistics accompanies this report.)

(k.) TIDES AND CURRENTS.

A tide gage was established on the inside of Fripp Inlet. Tidal currents run very strong through this area, especially so in Fripp Inlet.

(l.) LANDMARKS.

The old tower of Hunting Island Light House is the most prominent object in this area and is charted. There are no other prominent objects and there are no aids to navigation.

Geo. H. Everett, Surveyor,
Hydrographer.

Respectfully submitted,

Raymond P. Ingram,
Chief of Party

STATISTICS SHEET NO. 8.

Day		Date	Boat	Vol.	Miles	Soundings	Positions
a.		7-11-34	M. S.	1	14.9	545	122
b.		7-12-34	M. S.	1	17.7	735	177
c.		7-13-34	M. S.	(1	8.9	378	99
				(2	0.0	0	55
d.		7-24-34	M. S.	2	17.9	749	170
e.		7-25-34	M. S.	2	10.6	450	97
f.		7-26-34	M. S.	(2	5.2	147	60
				(3	0.8	42	13
g.	Green	7-27-34	M. S.	3	5.3	247	105
h.		7-28-34	M. S.	3	6.1	220	42
j.		7-30-34	M. L.	3	0.0	0	10
k.		7-31-34	M. L.	3	18.5	611	136
l.		8-1-34	M. L.	(3	8.3	296	63
				(4	7.7	249	48
m.		8-3-34	M. L.	4	4.3	160	41
n.		8-4-34	M. L.	4	6.1	338	108
p.		8-7-34	M. L.	4	14.0	491	117
q.		8-10-34	M. L.	5	11.7	412	93
15			2	5	158.0	6070	1536

Sq. miles (statute) of sounding 5.8

REPORT OF DRAFTING SECTION TO ACCOMPANY
HYDROGRAPHIC SHEET NO. 8 - EYMAN

LOCATION - Fripp Inlet, Skull Inlet and Johnson Creek.

AUTHORITY - Orders dated November 2, 1933.

FIELD WORK - The survey of this area was done by the party of R. P. Eyman based at Beaufort, S.C.

RECORDS - The following field records were forwarded to the party of B. H. Rigg at Charleston, S.C. to be completed by drafting section: Boat Sheet, 5 sounding volumes, and tide marigrams.

WORK ACCOMPLISHED BY THIS PARTY - Smooth sheet projection, plotted signals, reduced tidal data, protracted positions, penciled soundings, drew depth curves and applied shoreline and geographic names.

DISCREPANCIES - Johnson Creek -- The complete file on discrepancies in survey of Johnson Creek is included in this report.

Lat. 32° 22.9', long. 80° 26.7'. Near signal ZEV position 57 "b" day, should be plotted by the hydrographer as the note in sounding record is not in agreement with position and the time does not check.

see page 2.

DANGERS - Shoals at the mouth of Fripp Inlet extending out about two miles. Shoal at the mouth of Skull Inlet extending out about ½ mile.

CHANNELS - The mouth of Fripp Inlet, Skull Inlet, and Johnson Creek are all obstructed by shoals over which there is only about three feet of water.

COMPARISON WITH PREVIOUS SURVEYS - The shoal at the mouth of Skull Inlet does not extend out as far as shown on Chart No. 1240, but it has the same controlling depth.

The shoal at the mouth of Fripp Inlet has shifted to the east slightly, but still has only two or three feet of water over it.

No comparison is made of the entrance to Johnson Creek.

5

TIDAL DATA - A portable automatic tide gauge, located in Fripp Inlet near triangulation signal FRY, was in operation during process of the work. The location of the gauge is shown on the smooth sheet. Low water on the staff is 3.92'. Tide curves for reducers are forwarded with sounding volume No. 1.

STATISTICS -

Vol. No.	Miles	No. of Soundings	No. of Positions
1	41.5	1658	398
2	33.7	1346	382
3	39.0	~~1523~~ 1414	3~~1~~469
4	32.1	1238	314
5	11.7	412	73
Total	~~158.0~~	~~6177~~ 6070	1~~5~~536

Positions protracted by C. J. Harryman
Soundings penciled by C. J. Harryman

Respectfully submitted by,

Lt. Benjamin H. Rigg,
Chief of Party.

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

AND REFER TO No. 22-AB
1995 NA 4

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

WASHINGTON

October 6, 1934.

To: The Commanding Officer,
U.S.C. & G.S.Ship NATOMA,
Elizabeth City, North Carolina.

From: The Director,
U. S. Coast & Geodetic Survey.

Subject: Discrepancies in the survey of Johnson Creek, S. C.

Referring to your letter of September 27, transmitting a letter from Lieutenant B. H. Rigg relative to the above subject, there is enclosed copy of a letter sent to Lieutenant Rigg which is self-explanatory.

The discrepancies revealed well illustrate the problems that arise and the extra expense that is involved whenever adequate control is not made available before undertaking surveys having the accuracy expected by this office.

R S Patton

Director.

Enclosure.

Sheet 8. Johnson Creek

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

AND REFER TO No. 22-SG
1990 (19)

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

WASHINGTON

October 9, 1934.

To: Lieutenant B. H. Rigg,
U. S. Coast & Geodetic Survey,
12th Floor, Francis Marion Hotel,
Charleston, South Carolina.

From: The Director,
U. S. Coast & Geodetic Survey.

Subject: Discrepancies in Survey of Johnson Creek.

Referring to letter from this office dated October 6 regarding the above subject there is forwarded herewith complete file of correspondence and information bearing on this subject. As this information will be required in connection with the verification and review of the hydrographic sheet, it is requested that you attach it to the Descriptive Report of that sheet.

R S Patton

Director.

Enclosure.

HYDROGRAPHIC SHEET No. 8
(See letters attached)

Signals for control of hydrography were located on T 6092-A and 6092-B, aluminum planetable sheets. The largest discrepancy between hydrography and shoreline occurs in the area covered by T 6092-A and the control for T 6092-A was poor in this locality.

Shoreline was compiled on T 5187, scale 1:20,000 and enlarged to 1:10,000 . The enlargement was probably one of the photo lithographic prints on celluloid furnished Kirsh by this office and the transfer of shoreline should be accurate. The compilation is not in this office but the control is adequate and the plot has been checked over carefully. by Kirsch. The relative positions of points along the shoreline should be very close. For that reason the jump in position which causes the discrepancies at Latitute 32° 22' is more likely to be in larger part due to errors in the planetable work. Also the signals available for hydrographic fixes are widely spaced and fixes were probably hard to get and weak in a number of places.

It is recommended that Rigg be permitted to adjust the shoreline and hydrography, provided that he has enough information in the records to get the channel in proper relation to the H.W. line. In this case it will probably be necessary to reject part of the work on T 6092 A and B but the detail will be shown on air photo compilation T 5187. The area is not important enough to warrant more ground work provided Rigg can make a reasonably accurate adjustment.

22-AB
1990 (19)

October 6, 1934.

To: Lieutenant B. H. Rigg,
U. S. Coast & Geodetic Survey,
12th Floor, Francis Marion Hotel,
Charleston, South Carolina.

From: The Director,
U. S. Coast & Geodetic Survey.

Subject: Discrepancies in survey of Johnson Creek.

Referring to your letter of September 27 to the Commanding Officer of the NATOMA, regarding lack of coordination between the topographic compilation of the shoreline and hydrographic positions in Johnson Creek, the plane table control sheets submitted by the party on the NATOMA as well as the statements made by both you and the Commanding Officer of the NATOMA have been examined in this office. Apparently the discrepancies are due largely to inexact location of hydrographic signals by the topographer which in turn may have been caused by the lack of sufficient triangulation control.

It is noted that you state in the last paragraph of your letter that you believe the hydrography can be adjusted satisfactorily to the shoreline in this locality as taken from the photo compilations. Inasmuch as this waterway is not a part of the main inland route you are authorized to make this adjustment.

Director.

cc Commanding Officer, Ship NATOMA

23 ~~Return~~ entire file to → ~~FIELD WORK~~

22-AB
1990 (19)

October 6, 1934.

To: Lieutenant B. H. Rigg,
U. S. Coast & Geodetic Survey,
12th Floor, Francis Marion Hotel,
Charleston, South Carolina.

From: The Director,
U. S. Coast & Geodetic Survey.

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It is noted that you state in the last paragraph of your letter that you believe the hydrography can be adjusted satisfactorily to the shoreline in this locality as taken from the photo compilations. Inasmuch as this waterway is not a part of the main inland route you are authorized to make this adjustment.

(Signed) R. S. PATTON

Director.

To accompany Descriptive Report on Sheet No. 8 (Natoma So. Carolina 1934)

FIELD WORK

22-AB
1995 NA 4

October 6, 1934.

To: The Commanding Officer,
U.S.C. & G.S.Ship NATOMA,
Elizabeth City, North Carolina.

From: The Director,
U. S. Coast & Geodetic Survey.

Subject: Discrepancies in the survey of Johnson Creek, S. C.

Referring to your letter of September 27, transmitting a letter from Lieutenant B. H. Rigg relative to the above subject, there is enclosed copy of a letter sent to Lieutenant Rigg which is self-explanatory.

The discrepancies revealed well illustrate the problems that arise and the extra expense that is involved whenever adequate control is not made available before undertaking surveys having the accuracy expected by this office.

Director.

Enclosure.

To accompany Hydrographic sheet Descriptive Report Sheet no. 8 (Natoma, S.C. 1934)

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

AND REFER TO No. 22-AB
720 Vc 5

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
WASHINGTON

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20
80
22

October 1, 1934.

To: Chief, Division of Charts.
(Field Records)

From: Chief, Division of Hydrography & Topography.

Subject: Letters from Lieutenant J. C. Sammons and Lieutenant B. H. Rigg.

In view of the statements made and of the unimportance of the waterway in question, it is recommended that the second suggestion of Lieutenant Rigg be followed, that is, to let him adjust the hydrography to the shoreline as defined in the air photo compilation.

G V Rude
Chief, Division of
Hydrography & Topography.

V Charts (JR) KT IK

POST-OFFICE ADDRESS: Ship NATOMA, P. O. Box 535, Elizabeth City, N.C.

TELEGRAPH ADDRESS:

EXPRESS ADDRESS:

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

1934 SEP 29 AM 9:26

September 27, 1934

To: The Director,
U. S. Coast and Geodetic Survey,
Washington, D. C.

From: The Commanding Officer,
Ship NATOMA.

Subject: Discrepancies on Hydrographic Sheet No. 8.

There is enclosed herewith a letter recently received from Lieut. B. H. Rigg regarding discrepancies found in plotting hydrographic sheet No. 8, Project No. HT-159 for St. Helena Sound and vicinity. The tracing referred to in his letter is being forwarded under a separate cover.

The hydrography on this sheet was executed by a launch hydrographic party from this ship in charge of Mr. Everett (Surveyor, and former Coast Survey Officer). This party remained in Beaufort for two weeks after the NATOMA left Beaufort, in order to complete the work on this sheet. The work was completed and the records turned over to Lieut. Rigg in Charleston before the party returned to the ship at Elizabeth City. No shore line was available for the use of the hydrographic party while the field work was being executed. Mr. Everett now states that he had considerable difficulty in obtaining strong fixes in this area due to the narrowness of the stream.

The topographic sheets for this section were forwarded to you on September 11, 1934. Mr. Tiller, who excuted the topography in this area, states that he obtained a three point fix at Signal ZEV which is on the end of a dock, this fix was obtained from three triangulation stations. The other stations in this area were located by cuts and resections.

Respectfully,

Jack C. Sammons

Jack C. Sammons
Commanding Ship NATOMA.

7783

POST-OFFICE ADDRESS: 12th Floor Francis Marion Hotel
Charleston, S. C.

TELEGRAPH ADDRESS:

EXPRESS ADDRESS:

1934 SEP -29 AM 9:27

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

September 21, 1934

To: Lt. J. C. Sammons
U. S. C. & G. S. NATOMA
Elizabeth City, N. C.

From: Lt. Benjamin H. Rigg,
Chief of Party
Charleston, S. C.

Subject: Discrepancies on Hydrographic Sheet No.8.

I am mailing you under separate cover a tracing of the section of hydrographic sheet No. 8. The shore-line as shown on this sheet is a careful tracing of the 1/10,000 enlargement made by Lt. Kirsch from the aerial-photographs. The green dots are the actual smooth-plotted positions obtained by using the control as located on the topographic sheet. You will note that the hydrography does not conform with the shore-line. We have carefully checked the compilation in this area two different times taking additional well defined points from signal ZEV around to signal SAW and we are unable to find any discrepancy. Signal ZEV which is located on the end of a dock fails to check the position obtained by radial plot. Assuming that the radial plot is correct, and we have very strong reasons for assuming that it is correct, this would indicate that there is an error in the topography.

On the other hand, by shifting the shore-line by an amount equal to that shown by the two crosses at lat. 32° 22, the shore-line would then conform to the hydrography. Only the outside lines of the hydrography in this area has been shown on the tracing. Another thing that leads me to believe that there is an error in the topography is a note stating that the sounding launch passed signal LOT on line 72-73, and LOT was 3 meters to port, while the line as plotted shows that LOT would be on the starboard.

I would suggest that first of all the topographic sheet be examined as to the method and strength of the location of the signals in this area. If you can find nothing wrong, you could send me the topographic sheet and I could have a party visit this area and try to recover as many signals as are still standing.

The other alternative is to obtain permission from the Chart Division to allow me to adjust the hydrography to the shoreline as shown. I think that we could do this satisfactorly with a minimum of labor, and I do not feel that the area warrants the additional cost entailed in making a new topographic survey. After you have considered my suggestions, please take the matter up with the Chart Division and advise me. You might enclose my letter when you write them.

Best regards,

Lt. Benjamin H. Rigg, Jr.
Chief of Party

REPORT BY DRAFTSMEN OF PARTY NO. 19
ON ADJUSTMENT OF HYDROGRAPHY OF
JOHNSON CREEK

As a result of inaccurately located hydrographic control on Johnson Creek, the sounding lines could not be coordinated with the aero-photo compilation of shoreline. This shoreline was checked carefully by the compiling section and is correct. (See report of compiling section).

It was found that by tracing all the hydrography as plotted on the signals as located on the smooth sheet, and slightly moving this tracing of all the hydrographic positions as a unit, the sounding lines could be brought into agreement with the compiled shoreline. The amount of change at lat. 32° 22', long. 80° 27' was 23 meters north, 10 meters west, with a positive change in azimuth of 0° 48' 15". This change was made to all positions south of 32°22.2' on Johnson Creek. Above that point no change was made.

For authorization of the above, see letter to Lt. B. H. Rigg from the Director entitled "Discrepancies in survey of Johnson Creek", No. 22 AB 1990 (19).

It is felt that the method used will give a minimum amount of error in positions of souncings in the Creek.

RE-RADIAL PLOTTING OF PORTION OF JOHNSON CREEK
BY PHOTO-COMPILATION SECTION

Because of discrepancies between topo sheet and celluloid sheet compilation, a reradial plot was made on portion of Johnson Creek between topo signals "Tack" and "Saw". As the reradial plot agreed with the original radial plot and no change in the compilation was warranted by the pictures as placed by the new plot, the compilation was left as originally completed. A detailed summary, picture by picture, follows:

Picture No. 841 -- Stations Hunting Island Light on B print; Palmetto, Bog Island, Wee, Chan, Mid on D wing print; Bor, Butchers Island, Windmill, Coffin, Egg 4 on C wing print were used to orient the picture and radial lines drawn through eight new points and one old point which had been checked for correctness. Wings A and E were at sea and therefore unusable.

Picture No. 842 -- Stations Hunting Island Light on B print; Wee, Fry on A print; Mid, Cherry Hill Knoll, Helena on D print; Bor, Egg 4 on C print were used to orient picture and radial lines drawn through seven new points and the same old point as before. Wing E was at sea.

Picture No. 843 -- Stations Hunting Island Light on B. print; Bog Island, Mid, Wee, Fry, Pine on D print; Palmetto, Butchers Island, Windmill on C print were used to orient picture and radial lines drawn through eight new points and one old point as before. Prints A and E were at sea.

Picture No. 844 -- Stations Hunting Island Light, on E print; Fry, Wee on A print; Chan, Mid, Helena on D print; Palmetto, Butchers Island, Windmill, Bor on C print were used to orient picture and radial lines drawn through five new points and one old point.

Picture No. 845 -- Stations Fry on A wing; Chan on B print; Pine, Bend on D wing; Mid, Helena on C wing; Palmetto, Hunting Island Light on E wing were used to orient picture and radial lines drawn through four new and one old point.

Picture No. 846 was not used as area was off picture.

Picture No. 847 -- Δ Stations Pine, Bend on D print; Helena on C print; Chan, Mid, Bog Island, Fry, Palmetto, Bor, Hunting Island Light on E print were used to orient picture and radial lines drawn through five new points and one old point.

Leonard C Ripley
Surveyor

SMOOTH SHEET FIELD NO. 8

1. Is Field No. shown in ink on back? ✓
2. Is location (Lat. & Long., seconds in meters) 1927 datum of one triangulation station shown? ✓
3. Is all shoreline inked? ✓
4. Has a list of topo & hydro signals been prepared and pasted in Vol. 1 of the sounding record. ✓
5. Have the dates of establishment of triangulation stations been shown? ✓
6. Have all positions been plotted? ✓ See note in report under discrepancies.
7. Have all soundings been plotted? ✓
8. Have characteristics of the bottom been plotted? ✓
9. Have all bad crossings been noted and listed? ✓
10. Have depth curves been drawn? ✓
11. Have all dangers been noted by arrows and described? ✓
12. Have all existing landmarks been shown & described? ——
13. Have the names of Isles, Rivers, Banks, etc., been shown? from chart 1240 ✓
14. Have Ranges been shown as directed in S.P. No. 11, P21, Par. 160K? ✓
15. Have current & tide stations been plotted with limits of controlling gages shown? None
16. Have the limits of work on adjacent sheets been shown, and junctions and curves checked? ✓
17. Have all buoys been plotted and indicated by arrows? None ✓
18. Is there any more hydrography that should be done on this sheet? ✓
19. Has stamp No. 26 been placed on sheet? ✓
20. Has a comparison with chart for differences and depths been made? Curves to be checked by Chief of Party. ✓

[signature]

HYDROGRAPHIC SURVEY NO. 5717

Smooth Sheet ✓ 1

Boat Sheet ✓ 1

Sounding Records 5 Vols. _____

Descriptive Report Yes

Title Sheet Yes

List of Signals Yes

Landmarks for Charts (Form 567) See Descriptive Report pg. 2

Statistics Yes

Approved by Chief of Party Yes

Recoverable Station Cards (Form 524) None

Special Chart for Lighthouse Service (Circular Nov. 30,1933) No aids

Remarks _____

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. 5717

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

Number of positions on sheet	1536
Number of positions checked	157
Number of positions revised	7
Number of soundings recorded	6070
Number of soundings revised	52
Number of signals erroneously plotted or transferred	0

Date: July 22, 1935

Verification by G.K. Elderlin   Time: 83½ hrs.

Review by [signature] R. J. Christman   Time: 15 hr. 3½"

LQC

April 25, 1935

ED

Division of Hydrography and Topography:

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

Tide Reducers are approved in
5 volumes of sounding records for

HYDROGRAPHIC SHEET 5717

Locality Johnson Creek to Skull Inlet, S. C.

Chief of Party: R. P. Eyman in 1934
Plane of reference is mean low water reading
3.8ft. on tide staff at Fripp Inlet
10.2ft. below B.M. 1

Height of mean high water above plane of reference is 6.2 feet.

Condition of records satisfactory except as noted below:

Paul C. Whitney

Chief, Division of Tides and Currents.

GEOGRAPHIC NAMES
SOUTH CAROLINA

Survey No. H 5717

Date. April 17, 1935

Chart No. 1240

Diagram No. 1240-2

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
	Johnson Creek	Same			
	Hunting Island	"			
	Fripp Inlet	"			200
	Fripp Island	"			
	Skull Inlet	"			
	Old House Creek				175

APPROVED NAMES
UNDERLINED IN RED
H. L. Flemer.

(M-136)

Report on Hydrographic Sheet H-5717

1. The records conform to the requirements of the General Instructions.

2. The usual depth curves can be completely drawn.

3. The field plotting was very good and as prescribed in the Hydrographic Manual.

4. It was not necessary that the office draftsman repeat any of the drafting by the field party.

5. Junctions with adjacent sheet is satisfactory.

6. By permission of this office the field party was permitted to shift all hydrography in the western part of Johnson Creek to conform to the shoreline as shown on air-photo compilation sheet - T-5187. A tracing of the two lines along the shoreline is shown and included in the descriptive report together with a letter from the director authorizing this change.

The greatest change occurred from Lat 32-22.0 Long 80-27.0 west and north to the limits of the sheet where the change was approximately 22 meters northward 10 meters west. with a por. change in azimuth of appox 0°48' From the above latitude and longitude eastward the change was proportionally less to Lat. 32-23.2 Long 80-26.6 where the positions and soundings are as plotted from the record. All positions and

soundings east of and including 1136, 23m, 31m
1316 and 55b are from the record with no change
made.

Position of topographic stations were not
changed.

Respectfully submitted

Gordon K. Eldershaw.

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. H-5717 (1934) FIELD NO. 8

Johnson Creek to Skull Inlet, Vicinity of St. Helena Sound, South Carolina
Surveyed in 1934
Instructions dated November 2, 1933 (NATOMA)

Hand Lead soundings. 3 Point fixes on shore signals.

Chief of Party - R. P. Eyman.
Surveyed by - G. H. Everett.
Protracted by - C. J. Harryman.
Soundings penciled by - C. J. Harryman.
Verified and inked by - G. K. Elderkin.

1. Condition of Records.

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

The Descriptive Report did not discuss several important charted shoal soundings which should have been investigated.

2. Compliance with Instructions for the Project.

The field party failed to investigate several charted shoal soundings; in particular the 5 foot sounding charted in latitude 32° 17.6', longitude 80° 30.1', and the 16 foot sounding in latitude 32° 20.4', longitude 80° 27.9' (paragraph 15 of the Instructions).

3. Sounding Line Crossings.

Considering the lumpy nature of the bottom and the strong currents encountered, particularly in Fripp Inlet, the sounding line crossings are satisfactory.

4. Depth Curves.

The usual depth curves can be satisfactorily drawn within the limits of the present survey.

5. Junctions with Contemporary Surveys.

The junctions with H-5650 (1934) and H-5565 (1934) on the west and north are satisfactory.

No contemporary surveys along the outside coast within the limits of this sheet have as yet been received.

6. Comparison with Prior Surveys.

a.

H-620 (1856 - 57)	H-833 (1863)
H-649 (1853 - 57)	H-1349b (1876)

A comparison between the above surveys and the present survey reveals changes in depths and locations of shoals as well as minor changes in shoreline, particularly at the mouths of Fripp Inlet and Skull Inlet. It is noted, however, that the changes in depth in Fripp Inlet a mile up stream, have been slight. This is borne out by the fact that the location of shoal spots and depths in this vicinity on H-833 (1863) are in good agreement with the present survey. Because of the time elapsed between the earlier surveys and the present survey and the fact that there are no important shoals not completely developed on subsequent surveys, it is unnecessary to consider in detail, from a standpoint of information to be carried forward, the various changes noted. The present survey within its limits should supersede all of the above surveys for charting purposes.

b. H-4153 (1920) and H-4170 (1920-21).

These surveys are on a 1:20,000 scale with only half as close a development as the present survey. Numerous changes in depths and the locations of shoals have taken place. A comparison with the present survey shows that there has been a general deepening of from 1 to 2 feet in Fripp Inlet and that extensive sand bars have formed outside in the vicinity of latitude 32° 19' to latitude 32° 20' and longitude 80° 26'.

Two 16 foot soundings originating from H-4153 (1920) charted in latitude 32° 20.45', longitude 80° 27.87' and latitude 32° 20.2', longitude 80° 27.52' respectively, fall in depths of 25 and 17 feet on the present survey. Although there is evidence of a general deepening in this vicinity, in view of the hard bottom, it is considered that they are not disproved by the present survey and are, therefore, carried forward to H-5717 (1934) in color.

The 5 foot sounding from H-4153 (1920) latitude 32° 17.61', longitude 80° 30.1', falls between sounding lines of 13 to 15 feet on the present survey. An examination of the records for H-4153 (1920) shows that this is the first sounding taken after position 81 B (blue) and that it is exactly one fathom shoaler than the succeeding soundings on the same line, as well as all soundings on the adjacent lines. The existence of the 5 foot spot is questionable, but in as much as it was not investigated by the field party, but falls in an area of widely spaced sounding lines on the present survey, it is considered advisable to retain it until additional information either proves or disproves its existence.

7. Comparison with Chart No. 436 and 1240.

Within the area of the present survey the chart is based on surveys discussed in the foregoing paragraphs and contains no additional information that needs consideration in this review.

8. Field Plotting.

The field protracting and plotting is satisfactory except that the position numbers and day letters were inked too large.

9. Additional Field Work Recommended.

This survey is satisfactory except as noted in paragraph 2 of this review. When work is resumed in this vicinity it is recommended that the 5 foot spot and the 18 foot sounding referred to in paragraphs 2 and 6b of this review be investigated.

10. Superseding Old Surveys.

Within the area covered the present survey, with the indicated additions from previous surveys, supersedes the following surveys for charting purposes:

H 620 (1856-57)	in part	
H 649 (1853-57)	"	"
H 833 (1863)	"	"
H 1349b (1876)	"	"
H 4153 (1920)	"	"
H 4170 (1920-21)	"	"

11. Reviewed by - Leo S. Straw, August 9, 1935.

Inspected by - R. J. Christman, August 13, 1935.

Examined and approved:

K. T. Adams

K. T. Adams,
Asst. Chief, Division of Charts.

T. J. Borden

Chief, Section of Field Work.

L. O. Colbert

Chief, Division of Charts.

G. Rude

Chief, Division of H. & T.

H-5717
T6092b
Signal 'Saw' 5M. to Port
WIL
UNO
RAT
L
TAL
BELL
PIG
TIL
ILL
N
SAW
TACK
NAIL
TREE
Line Breaks 7M. from Dock.
Blue shows position of dock from photo compilation
Black shows position of dock from tracing of Topo sheet "D"
BOG
FEZ
Signal 'Fez' 10M. to Port
T6092A
L
LOT
Signal 'Lot' 3M. to Port
HUNTING IS. L.H.
6092b
23'
28'
27'
26'
25'
24'
22'

"Applied to Chart 793 May 21, 1936 H. E. MacEwen