

5135

U. S. COAST & GEODETIC SURVEY
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Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

Director

State South Carolina

DESCRIPTIVE REPORT

Topographic
~~Hydrographic~~

Sheet No. 5135

LOCALITY

Broad River

~~South Carolina East Coast~~

Hilton Head Island

~~Port Royal Sound to Calibogue Sound~~

1935

CHIEF OF PARTY

S. B. Grenell

U. S. GOVERNMENT PRINTING OFFICE: 1921

5135

applied to chart 440 June 27, 1936. g.H.S.

DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY

REG. NO.

TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No.

REGISTER NO. 5135

State South Carolina

General locality Broad River

South Carolina East Coast

Locality HILTON HEAD ISLAND

Port Royal Sound to Calibogue Sound

Scale 1:20,000 Date of photographs: 10-10-33; 9-29-33

Vessel Aerial photo Compilation Party #18

Reviewed and recommended for approval:
Chief of party Lieut. (j.g.) S. B. Grenell

Photographs plotted by: F. B. Hickman

Inked by J. W. Griffith, Jr.

Heights in feet above to ground to tops of trees

Contour, Approximate contour, Form line interval feet

Instructions dated November 10, 1933, 19

Remarks: Compilation of aerial photographs Nos.: 951 to 967;

866 to 881; 1017 to 1033

--NOTES OF COMPILATION--

One copy of this form must accompany each chart from beginning to completion. The last draftsman, whose name appears on this form, is responsible for it and all personnell will endeavor to keep these forms up to date and correctly posted. This form is very important inasmuch as the final Descriptive Report of the chart compiled is based upon the information contained herein.

SHEET No. 5135

954
PHOTO NO. 866 to PHOTO NO. 881
1017 1033

BY	START	FINISH
ROUGH RADIAL PLOT <u>B. B. Lewis</u>		<u>6-10-34</u>
SCALE FACTOR (.935) <u>B. B. Lewis</u>		<u>6-12-34</u>
SCALE FACTOR CHECKED <u>S. B. Grenell</u>		<u>6-12-34</u>
PROJECTION <u>A. M. Gruber</u>	<u>6-20-34</u>	<u>6-21-34</u>
PROJECTION CHECKED <u>Warren Fitch</u>	<u>6-22-34</u>	<u>6-22-34</u>
CONTROL PLOTTED <u>A. M. Gruber</u>	<u>6-24-34</u>	<u>6-26-34</u>
CONTROL CHECKED <u>W. R. Taylor, Jr.</u>	<u>6-26-34</u>	<u>6-27-34</u>
TOPOGRAPHY TRANSFERRED <u>J.W.G. & S.B.G.</u>		<u>various times</u>
TOPOGRAPHY CHECKED <u>S. B. Grenell</u>		
SMOOTH RADIAL LINE PLOT <u>F. B. Hickman</u>		<u>10-10-34</u>
RADIAL LINE PLOT CHECKED <u>S. B. Grenell</u>		<u>10-10-34</u>
DETAIL INKED <u>J. W. Griffith, Jr.</u>	<u>11-15-34</u>	
AREA DETAIL INKED <u>86.2</u>	Square Statute Miles	
LENGTH OF SHORE LINE OVER 200m. <u>66.9</u>	Statute Miles	
LENGTH OF SHORE LINE UNDER 200m. <u>84.8</u>	Statute Miles	
GENERAL LOCATION <u>Broad River</u> South Carolina East Coast		
LOCATION <u>Hilton Head Island.</u> Port Royal Sound to Calibogue Sound		
DATUM STATION <u>Sawmill</u> <u>1934</u> <u>1933</u>	LATITUDE <u>32°-17' 05.557"</u> (171.2m)	
DATUM <u>N. A. 1927</u>	LONGITUDE <u>80°-50' 10.970</u> (287.1m) (unadjusted)	

INSPECTION REPORT

COMPILATION No. 5135

Scale 1:20,000

REFERENCE:

In reviewing this sheet in the Washington office reference should be made to the General Report forwarded with compilation #5114.

GENERAL INFORMATION:

The general characteristics of the land and water areas covered by this compilation are the same as for all of this section of the coast. The paragraph under General Description of Topography together with the detail symbols clearly explains the general topographic features.

This section of the country was once very prosperous and a great amount of land was under intensive cultivation. In late years much of the land has been abandoned to cultivation and few improvements are being made. The roads shown as double dashed lines are fair to poor sand roads with little prospect of being improved in the near future. The surfaced and well graded roads have been shown by a solid double line.

The blank area through the central portion of the sheet is covered by two single lens compilations, Nos. 5211 and 5212, scale: 1:10,000.

CONTROL:

The plot of this compilation was controlled entirely by triangulation of first, second and third order accuracy from the following schemes:

First order arc. C. D. Meaney, 1932
Second order breakdown scheme C. M. Durgin, 1933
Second and third order schemes C. A. Egner, 1931 and 1933
One station established by T. J. Maher, 1916 and two intersection stations by F. S. Borden (?) 1920.

COMPARISON WITH CONTEMPORARY SURVEYS

All junctions with adjoining compilations have been checked. Comparisons were made with the fixed hydrographic lines from sheets executed in 1934 by C. A. Egner and I. E. Rittenburg. All apparent discrepancies were investigated and adjustments made where the photo compilation was ~~found to be~~ found to be in error.

LANDMARKS FOR CHARTS

This area was field surveyed in 1934 by both C. A. Egner and I. E. Rittenburg and form 567 was submitted by both Chiefs of Party.

COAST PILOT NOTES:

Notes were submitted by the Chiefs of Party mentioned above.

NAMES ON OVERLAY SHEETS-

All names appearing on the overlay sheet were taken from current issues of charts and from Geological Survey and U. S. Army tactical maps.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read 'S. B. Grenell', written in dark ink.

S. B. Grenell,
Chief of Party No. 18

REPORT OF COMPILATION:-

COMPILATION METHOD:

This sheet was compiled by the standard radial line plot method. The plot was held up for a while to see if the connections and junctions were going to work out with the adjoining sheets. Considering the fact that the pictures are rather bad, this plot is exceptionally good.

ADJUSTMENT OF PHOTOGRAPHS:

Some of the photographs on this sheet were badly tilted and the detail was rather dim, making the radial points hard to adjust in several places.

INTERPRETATION:

The photographs, for the most part, were dim and in several places partly covered by clouds. The standard topographic symbols were used throughout the sheet. The stereoscope was used to pick up as accurately as possible, the detail having elevation.

INFORMATION FROM OTHER SOURCES:

The photographs and field notations were the only sources of information used on this sheet.

COMPARISON WITH OTHER SURVEYS:

Junctions with adjoining sheets compiled in this office are complete and satisfactory. There is no detail appearing on the chart to be removed.

ACCURACY AND COMPLETENESS:

The area covered on this sheet, with the exception of the single lens area, is complete in every detail. as nearly as can be determined from the photographs, all well defined detail is located with a probable error of not more than 4 meters; less well defined detail with an error of not more than 10 meters.

See Review

PHOTOGRAPHS:

No.	to	No.	Date	Time	Stage of Tide
1019		1033	10-10-33	10:45AM	4/6
954		961	9-29-33	2:45PM	5/7
866		879	9-29-33	1:45PM	4/7
962		965	11-10-33	10:15AM	4/6

J. W. Griffith Jr.
J. W. Griffith, Jr.
Draftsman

Approved:

S. B. Grenell
S. B. Grenell
Chief of Party

REVIEW OF AIR PHOTO COMPILATION T-5135

Scale 1:20,000

1. Projection:

The projection diagonals have been checked in this office and found correct. No further check was made during the review.

2. Comparison with Graphic Control Surveys:

(a) T-6132 and T-6133 1934 (1:10,000). There is no rodded shoreline on these G. C. S. but the temporary signals are in agreement with the compilation shoreline.

(b) T-6134, T-6135a, T-6135b, and T-6138b 1934 (1:10,000). There have been several changes made in the shoreline where minor discrepancies occurred. These were due mostly to the dimness of the photos. The above listed G. C. S. and the compilations are now in agreement.

(c) All information and detail shown on the above listed graphic control surveys within the area of this compilation is now shown on the compilation except the temporary topographic signals and magnetic meridians.

3. Comparison with Recent Hydrographic Surveys:

(a) H-5117, 1931; H-5130, 1931; H-5562, 1934; H-5563, 1934; H-5568, 1934; H-5569, 1934; (1:10,000). A small island near A^{DAW} 3 has been added to the compilation which is not shown on H-5562 covering the area. This has been referred to the reviewing section. Several small shoreline corrections have been made but these do not affect the soundings. Except for the discrepancies mentioned the portions of the hydrographic surveys noted above which are covered by the compilation are in agreement with the compilation.

4. Comparison with Former Surveys:

(a) T-809, 1859 (1:20,000); T-839, 1859 (1:20,000); T-1195, 1871 (1:20,000); T-4608, 1931 (1:10,000); T-4609, 1931 (1:10,000). T-839 shows a marsh Island in Chechessee River at lat. 32°18.7', long. 80°46.5' which does not appear on the compilation or present chart. The compilation shows no other important changes. The compilation is complete and adequate to supersede the portions of the above mentioned surveys which it covers.

5. Recoverable Stations:

The recoverable stations which are shown on the Graphic Control Surveys T-6132, T-6134, T-6135a, T-6138 and are covered by the compilation, have been added to the compilation in this office. Plotted by *R. C. Lande*; checked by *M. C. Criss*

Descriptions of the recoverable stations are filed on form 524 under the Graphic Control Survey Numbers.

6. Remarks:

(a) The accuracy of 4 to 10 meters given on page 3 of the preceding report is high for work on this scale and in view of the statements on page 3 regarding the photographs a better estimate would be 6 to 10 meters for intersected points and 6 to 20 meters for other detail.

(b) The interior of the marsh areas has been somewhat generalized as all the small sloughs have not been shown.

7. Comparison with Charts 1240 and 571:

There are several docks (and a small marsh island at lat. $32^{\circ}18.3'$, long. $80^{\circ}44.9'$) shown on the compilation on the Colleton River which are not shown on the present charts. There are two former range towers, not lighted, shown on the present charts as landmarks and are shown on the compilation. The black stack at Ujmer's Sawmill at lat. $32^{\circ}12.9'$, long. $80^{\circ}50.7'$ is recommended by Graphic Control Survey T-6138b and is shown on the compilation.

L. C. Landy
✓ B. G. Jones
11/9/35

cam

GEOGRAPHIC NAMES

Date. March 22, 1935

Survey No. T-5135

Chart No. ~~523~~ 571, 1240, 440

Diagram No. 1240

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>Hilton Head</u>	do		move	
	<u>Colleton River</u>	do			
	<u>Chechessee River</u>	do			
	<u>Port Royal Sound</u>	do			
	<u>Broad River</u>	do			
	<u>Daw Island</u>	do	Daws Island (DGN)		
	<u>Rose Island</u>	do			
	<u>Spring Island</u>	do			
	<u>Mackay Creek</u>	do			
	<u>Sawmill Creek</u>	do			
	<u>May River</u>	do			
	<u>Hilton Head Island</u>	do			
	<u>Broad Creek</u>	do			
	<u>Bluffton</u>	do			
	<u> </u>	Kix 573 571			
	<u> </u>	Kix 573 571			
	<u>Callawassie I.</u>	do ch 1240, 573 571			
	<u> </u>	Stoney 573 571			
	<u>Colleton Neck</u>	do			
	<u> </u>	Buzzard Island 571			
	<u> </u>	Victoria Bluff 571			
	<u> </u>	Foot Pt. 571 + 1240			

Survey No. TS135'

Chart No. _____

Under investigation. Q

(M-136)

REVIEW OF AIR PHOTO COMPILATION NO. 5135

Chief of Party: S.B. Grenell

Compiled by: J.W. Griffith ^{DD:ll}

Project: F.P. 4, Ga.

Party #18

Instructions dated: Nov. 10, 1933

1. The charts of this area have been examined and topographic information necessary to bring the charts up to date is shown on this compilation. (Par. 16a, b,c,d,e,g and i; 26; and 64) ✓
2. Change in position, or non-existence of wharfs, lights, and other topographic detail of particular importance to navigation which affect the chart, is discussed in the descriptive report. (Par. 26; and 66 g,n) *No changes noted* ✓
3. ~~Ground surveys by plane table, sextant, or theodolite have been used to supplement the photographic plot where necessary to obtain complete information, and all such surveys are discussed in the descriptive report. (Par. 65; and 66 d,e)~~ *None* ✓
4. ~~Blue prints and maps from other sources which were transmitted by the field party contain sufficient control for their application to the charts. (Par. 28)~~ *None* ✓
5. Differences between this compilation and contemporary plane table and hydrographic surveys have been examined and rectified in the field before forwarding the compilations to the office and are discussed in the descriptive report. ✓
6. The control and adjustment of the photo plot are discussed in the descriptive report. Unusual or large adjustments are discussed in detail and limits of the area affected are stated. (Par. 12b; 44; and 66 c,h,i) *No large adjustments.* ✓
7. High water line on marshy and mangrove coast is clear and adequate for chart compilation. (Par. 16a, 43, and 44) ✓

NOTE: Strike out paragraphs, words or phrases not applicable and modify those requiring it. Paragraph numbers refer to those in the Topographic Manual. Refer also to the pamphlet "Notes on the Compilation of Planimetric Line Maps from Five Lens Air Photographs."

8. The representation of low water lines, ~~reefs, coral reefs and rocks,~~ and legends pertaining to them is satisfactory. (Par. 36, 37, 38, 39, 40, 41) ✓
9. Recoverable objects have been located and described on Form 524 in accordance with circular 30, 1933, circular letter of March 3, 1933, and circular 31, 1934. (Par. 29, 30, and 57)
Form 524 submitted by C.A. Egner + I.E. Rittenburg, 1934
10. A list of landmarks was furnished on Form 567 and instructions in the Director's letter of July 16, 1934, Landmarks for Charts, complied with. (Par. 16d, e; and 60)
Form 567 by C.A.E. + I.E.R., 1934.
11. ~~All bridges shown on the compilation are accompanied by a note stating whether fixed or draw, clearance, and width of draw if a draw bridge. Additional information of importance to navigation is given in the descriptive report. (Par. 16c)~~
No bridges
12. Geographic names are shown on the overlay tracing. The accepted local usage of new names has been determined and they are listed in the report, together with a general statement as to source of information and a specific statement when advisable. Complete discussion of place names differing from the charts and from the U. S. G. S. Quadrangles is given in the descriptive report, together with reasons for recommendations made. (Par. 64, and 66k) ✓
13. The geographic datum of the compilation is *N.A. 1927* and the reference station is correctly noted. ✓
14. Junctions with adjoining compilations have been examined and are in agreement. (Par. 66j) ✓
15. The drafting is satisfactory and particular attention has been given the following:
 1. Standard symbols authorized by the Board of Surveys and Maps have been used throughout except as noted in the report. ✓
 2. The degrees and minutes of Latitude and Longitude are correctly marked. ✓

- ✓3. All station points are exactly marked by fine ✓
black dots.
- ✓4. Closely spaced lines are drawn sharp and clear ✓
for printing.
- ✓5. Topographic symbols for similar features are of ✓
uniform weight.
- ✓6. All drawing has been retouched where partially ✓
rubbed off.
- ✓7. Buildings are drawn with clear straight lines ✓
and square corners where such is the case on
the ground.


(Par. 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 48)

16. ✓ No additional surveying is recommended at this time.

17. ✓ Remarks:

18. ✓ Examined and approved;

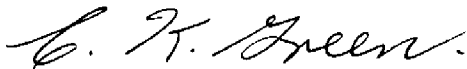

Feb. 7, 1935


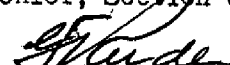

Chief of Party

19. / Remarks after review in office:

Reviewed in office by: L. C. Lande ✓ B. G. Jones 11/9/35

Examined and approved:


Chief, Section of Field Records

Chief, Division of Charts


Chief, Section of Field Work

Chief, Division of Hydrography
and Topography.