

5209

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

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. Patton, Director

State: South Carolina

DESCRIPTIVE REPORT

Photo

Topographic

Sheet No. 5209 5209

LOCALITY

Coast of South Carolina, Beaufort,

River Vicinity of Beaufort River  
Port Royal

1934

CHIEF OF PARTY

Lieut. (j. g.) S. B. Grenell

U. S. GOVERNMENT PRINTING OFFICE: 1928

5209

Applied to Cht. 571, Mar. 27, 1935

Applied to Chart 794 Sept 26, 1935.

H. Reynolds

H. MacEwen

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO. 5209

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. 5209 5209

State South Carolina

General locality Coast of South Carolina Vicinity of Beaufort River

Locality Beaufort River Port Royal

Scale 1:10,000 Date of Photographs: 10/25/33  
Date of ~~Survey~~ Comp. May, 19 34

Vessel .....

Reviewed and recommended for approval:

Chief of party Lieut. (j. g.) S. B. Grenell

Photographs plotted by:

~~Surveyed by~~ F. B. Hickman

Inked by John Tassapoulos

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. (807) 4 to 10  
17 to 22

# NOTES ON 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 personnel 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. 5209

PHOTO NO. (607) M1 to M10 TO PHOTO NO. M22

BY START FINISH

ROUGH RADIAL PLOT			
SCALE FACTOR( )			
SCALE FACTOR CHECKED	<i>S. B. Grenell</i>		
PROJECTION	<i>A. A. Futral</i>	2/28/34	2/28/34
PROJECTION CHECKED	<i>F. B. Hickman</i>	2/28/34	2/28/34
CONTROL PLOTTED	<i>F. B. Hickman</i>	2/28/34	2/28/34
CONTROL CHECKED	<i>Warren Fitch</i>	2/28/34	2/28/34
TOPOGRAPHY TRANSFERRED			
TOPOGRAPHY CHECKED			
SMOOTH RADIAL LINE PLOT	<i>F. B. Hickman</i>	2/28/34	4/3/34
RADIAL LINE PLOT CHECKED	<i>S. B. Grenell</i>	4/3/34	4/3/34
DETAIL INKED	<i>John Tassapoulos</i>	5/1/34	6/18/34

AREA DETAIL INKED 21.9 sq. Statute Miles

LENGTH OF SHORELINE OVER 200 m. 25.5 Statute Miles

LENGTH OF SHORELINE UNDER 200 m. 40.6 Statute Miles

GENERAL LOCATION Coast of S. Carolina S. Carolina Vicinity of Beaufort River

LOCATION Beaufort River Port Royal

DATUM STATION Beaufort Church Latitude 32-26' 130.1" N  
N. A. Datum 1927 Longitude 80-40' 618.8" W

(32° 26' 04.222" (130.1m) adjusted)  
 80° 40' 23.688" (618.8m)

REPORT OF COMPILATION:

## COMPILATION METHOD:

This sheet was compiled by the standard radial line plot method. Due to lack of control on Battery Creek, topographic stations were out in on photographs and used in the plot. The radial plot positions of these topographic stations checked the position on the aluminum sheets.

## ADJUSTMENT OF PHOTOGRAPHS:

Photostatic copies of this sheet were sent to Charleston, S. C. Small error in direction of highway at junction of 1:20,000 meter scale sheet has been corrected. Error was attributed to radial points picked wrong in this area.

## INTERPRETATION:

No great difficulty was experienced in interpretation of detail since photographs were unusually clear and with a minimum of tilt.

Only the usual graphic symbols were used. The stereoscope was used to pick up as accurately as possible a definite line between the wooded hammocks and marsh, and also the presence of bluffs.

Some little difficulty was experienced in definitely fixing shoreline in numerous marsh areas due to a peculiar condition of topography existing there. Marsh grass in these areas thins gradually to mud flats which in turn slope gradually to the low water line making it difficult to fix the true marsh line. The area shown enclosed by a dashed line on the point on the south end of Ladies Island Drawbridge represents such a condition of mud flats that are partially bare at low water. Blank areas shown in marsh land indicates a semi-flooded condition.

## INFORMATION FROM OTHER SOURCES:

Photographs and field sketches were the only source of information.

## COMPARISON WITH OTHER SURVEYS:

Junctions with adjoining sheets compiled in this office are complete and satisfactory.

Only one small error was found, in the junction of this sheet and adjoining 1:20,000 scale sheet of Charleston party, as described under paragraph "Adjustment of Photographs".

## ACCURACY AND COMPLETENESS:

Area covered by this sheet is complete in every detail. 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.

## PHOTOGRAPHS:

No	to	No	Time	Date	Stage of tide.
(807)4	-	9,18-22	10:15, 10:30	10/25/33	4/6

APPROVED: *S. S. Gifford*, Chief of Party

*John Tassapoulos*, Draftsman

INSPECTION REPORT

Sheet No. 5209

REFERENCE:

In reviewing this sheet in the Washington office, reference should be made to the General Report attached to Sheet No. 5206.

GENERAL INFORMATION:

The character of the land areas shown on this sheet differ very little from the general character of this section of the coast. The land is low and flat and very fertile and considerable truck gardening is carried on. The marshy areas afford no unusual features and the wooded areas are covered with a mixed growth of pine, oak and deciduous brush. The Oak predominates along the shoreline and on the smaller hammocks; the pine on the "uplands" and extensive sand flats.

There is some bluff formation along the west side of the Beaufort River but it is low and not continuous for long stretches.

The C. & W. C. R. R. parallels the west bank of the Beaufort River with a terminal at Port Royal which at one time had an excellent harbor and prospects of being a large port but which is now merely a small community.

CONTROL:

The triangulation on this sheet was executed by the following parties:- F. S. Borden 1920, 1921 -- C. A. Egner 1931, 1933

Considerable difficulty was experienced in running the radial plot along the west border of the sheet due to lack of adequate control. Lieut. I. Rittenburg was then building hydrographic signals along Battery Creek so a reinspection of a few of the aluminum sheet topographic stations was made and the plot was then run through smoothly. Several additional topographic signals were cut in on the radial plot and when the positions of these stations were later determined the check was found to be satisfactory. The entire plot of the west flight was held on topographic locations and these locations were later checked through to triangulation so it is believed that the plot is correct.

A junction of this sheet with a Charleston compilation - 1:20,000 - to the westward checked perfectly in every respect.

LANDMARKS FOR CHARTS:

Form 567 has been submitted by I. Rittenburg, 1934.

COAST PILOT NOTES:

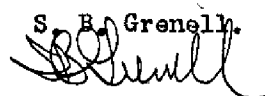
Notes have been submitted by I. Rittenburg, 1934.

NAMES:

All names appearing on this sheet were taken from recent issues of charts.

Respectfully submitted,

S. B. Grenell.



## REVIEW OF AIR PHOTO COMPILATION NO. 5209

Chief of Party: S.B. GRENNELL

Compiled by: J. Tassopoulos

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* ✓
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) ✓
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. *Examinations made and corrections applied for all areas surveyed by I. Rittenburg to date of compilation.* ✓
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) ✓
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 J. 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 submitted by J. Rittenburg 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)

*"Ladies Island Draw Bridge" - (See note on overlay sheet)  
Clearance 20 ft. Highwater  
Draw 78 and 80 ft.*

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)

*No new names*

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;

8/29/34

S. B. Shell  
Chief of Party

19. Remarks after review in office:

see following page

Reviewed in office by: B. G. Jones

Examined and approved:

K. T. Adams  
Asst Chief, Section of Field Records  
L. O. Solbert  
Chief, Division of Charts

L. B. Borden  
Chief, Section of Field Work  
G. H. Hude  
Chief, Division of Hydrography  
and Topography.

## REVIEW OF AIR PHOTO COMPILATION 5209

### Comparison with Other Surveys:

1. Plane table control survey T-6103, 1934: The following permanent topographic stations have been transferred to the compilation in this office:

Pad (d) R.R. Water Tank	Aft (d)
Bee (d) Signal Tower	Bin (d) Battery Creek Light
Cap (d)	Dot (d)
Dot (d) Dolphin	

Plotted by *J.R.S.*  
Checked by *Bgg.*

Stations noted with (d) have descriptions on Form 524 filed under T-6103. In addition to the above, stations *Mit(d)* <sup>and *Bul(d)*</sup> was transferred from H 6025, and the description is filed under that number.

T-6103 shows a small amount of shore-line in lat.  $32^{\circ} 22'$ , long.  $80^{\circ} 41'$  to  $80^{\circ} 41.5$  which differs with the compilation by 0 to 45 meters. This difference is not mentioned in the reports for either the plane table survey or the compilation. However, comparison with H-5519 shows that the compilation shore-line checks with the soundings, whereas the plane table shore-line falls on 3 to 10 ft. soundings in places. The field party in plotting H-5519 has used signals from T-6103 but in every case has taken the shore-line and wharfs in this area from the compilation. The compilation is accepted as correct for this detail. The differences are evidently due to differences of interpretation and possibly to errors in rod readings. The compilation used the plane table control signal locations from T-6103 without difficulty and there is no indication of trouble or differences in the basic photo plot or plane table triangulation.

Recoverable plane table stations Dot and Aft on T-6103 plot about 6 meters outside the shore-line when transferred to the compilation.

These stations are outside the area discussed above and were not used for control of the photo plot. The shore-line in this area is indefinite at best. The difference is probably in large part due to misinterpretation by the compiler because of the fact that the photos were taken at 2/3 H.W. with water probably in the edges of the grass. See Page 1 of the report. The shore-line on the compilation has been corrected slightly to agree with these stations.

2. T-3831, 1921: Comparison with the compilation shows only minor changes. The compilation shows only flooded marsh in the area at lat.  $32^{\circ} 23.5'$ , long.  $80^{\circ} 40.2'$ , whereas T-3831 shows a partially unsurveyed slough. The compilation is accepted as showing the better interpretation of this area and is adequate to supersede T-3831 for the area covered.

3. T-1006, 1866 (1:20,000) and 1070, 1868 (1:20,000): Comparison shows numerous changes in the marshy areas but the delineation of the fast land is about the same. The older surveys show the inner limit of the marshes by a fine line, whereas the compilation uses the conventional symbols only. T-1006 also shows several lines - . - . - which are apparently property lines. The compilation is adequate to supersede T-1006 and T-1070 for all information for charting within the area it covers.

*Δ Beacon No. 5, 1933:*

*Beaufort River Beacon No. 5 which was not found on the compilation was plotted in this office from the 1933 triangulation position. It is possible that this Beacon has been rebuilt ~~but~~ since the 1933 triangulation position but in the absence of any information to that effect the 1933 position is shown.*

*B. G. Jones*