

5189

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

## DESCRIPTIVE REPORT

Air  
Photo

Topographic | Field 37  
Hydrographic | Sheet No. Reg. 5189

State SOUTH CAROLINA

### LOCALITY

PORT ROYAL ISLAND

BROAD RIVER AND VICINITY

1934

CHIEF OF PARTY

E. H. KIRSCH

U. S. GOVERNMENT PRINTING OFFICE: 1934

5189

Applied to Cht. 571, Aug. 10, 1935

*K. Reynolds*  
Applied to chart 794. Oct. 3, 1935 - H. M. Ewen

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. 37

REGISTER NO. 5189

State South Carolina

General locality Port Royal Island

Locality Broad River and Vicinity

Scale 1:21,482 Photographs - September 29, 1933  
Date of survey October 10, 1933, 19

Compilation - August 30, 1934  
Vessel Air Photo Compilation Party No. 21, Charleston, S. C.

Chief of party E. H. Kirsch

Surveyed by See data sheet in descriptive report.

Inked by M. D. Crook

Heights in feet above to ground to tops of trees

Contour, Approximate contour, Form line interval feet

Instructions dated November 10, 1933, 19

Remarks: None.

Scale factor 0.931 computed 1:21,482

PHOTO NOS.  
898 to 918  
828 to 840  
1034 to 1038

DATE  
September 29, 1933  
September 29, 1933  
October 10, 1933

TIME  
2:15 P.M.  
1:15 P.M.  
12:45 P.M.

PROJECTION BY

L. C. Ripley  
L. C. Ripley

5-25-34

PROJECTION CHECKED BY

J. H. Wulbern  
J. H. Wulbern

5-25-34

CONTROL PLOTTED BY

J. H. Wulbern  
J. H. Wulbern

5-26-34

CONTROL CHECKED BY

E. S. Ethridge  
E. S. Ethridge

5-30-34

CONTROL PLOTTED ON PHOTOS BY

SAVANNAH OFFICE

CONTROL CHECKED ON PHOTOS BY

SAVANNAH OFFICE

TOPOGRAPHY TRANSFERRED BY

M. D. Crook  
M. D. Crook

7-28-34

TOPOGRAPHY CHECKED BY

E. J. Anderson  
E. J. Anderson

8-1-34

SMOOTH RADIAL LINE PLOT BY

J. H. Wulbern  
J. H. Wulbern

6-28-34

RADIAL PLOT CHECKED BY

M. D. Crook  
M. D. Crook

7-1-34

SCALE PLOT BY

L. C. Lande  
L. C. Lande

5-3-34

DETAIL INKED BY

M. D. Crook  
M. D. Crook

8-30-34

AREA OF DETAIL INKED: 62.0 Square Statute Miles (land area).

LENGTH OF SHORELINE: 28.2 Statute Miles (more than 200m from opposite shore).

LENGTH OF COAST LINE: None.

LENGTH OF STREAMS: 142.8 Statute Miles (Less than 200 meters wide).

## GENERAL INFORMATION

### Statistics:

The land area covered by this sheet is 62.0 square statute miles. All inland with no outside coast line. The total length of river shoreline more than 200 meters from nearest opposite shore is 28.2 statute miles, and 142.8 statute miles of streams (rivers, creeks, and sloughs) less than 200 meters wide.

### Report:

The land area covered by this sheet consists of Marsh, timbered, grass, shoal, and cultivated land which is represented by symbols taken from the topographic manual (special publication No. 144). Most of the timbered land consists of pine and oak with pine predominating.

### Photographs:

All photographs used were taken with the U. S. Army Air Corp 5-lens Camera, September 29, 1933 and October 10, 1933. The time of the flights varied from 4 hours 15 minutes before high tide to 15 minutes before high tide.

Photographs from 3 flights - 828 through 840, 898 through 918, and 1034 through 1038 - were used in compiling this sheet.

## CONTROL

### Source:

Triangulation by C. D. Meaney, 1932; E. B. Roberts, 1924; C. A. Egner, 1933; R. P. Eymann, 1933.

Aluminum control sheets "E" Reg. No. T-6105, "G" Reg. No. T-6129, and "H" Reg. No. T-6130, by Lt. I. E. Rittenberg, Chief of Party, 1933-34.

All control reduced to N. A. 1927 datum.  
*Datum station is adjusted. Same.*

### Errors:

No errors were found in the plotting of control. Some stations were bad, due to poor photographs, and could not be accurately plotted on photographs, but there was sufficient control for a good plot.

### Discrepancies:

No control stations established by other organizations were used in this compilation. SALT BRIDGE which was established in 1901 - Traverse, Augusta to Beaufort - by unknown chief of party. It was reduced to N. A. 1927 datum.

## COMPILATION

### Method:

The standard radial line method was used as described in the U. S. Coast and Geodetic Survey 1933 Notes on the Compilation of Hani-metric Line Maps from five lens Aerial Photographs.

### Adjustment of Plot:

Although many of the photographs were badly spotted with cloud shadows and had considerable tilt. No unusual adjustment was required in making the radial plot.

### Interpretation:

All symbols used were taken from the Topographic Manual (Special Publication No. 114).

Some difficulty was had in interpreting the high water line for some sections. This was especially true of the section between Lat.  $32^{\circ} 23'$  and  $32^{\circ} 25'$ , and Long.  $80^{\circ} 43'$  and  $80^{\circ} 45'$ , also along Whale Branch and McCalley's Creek between Long.  $80^{\circ} 41'$  and  $80^{\circ} 43'$ . However, the interpretation is believed to be correct and a comparison with the smooth hydrographic sheet covering this section is satisfactory.

Trouble was also had in compiling a strip through the center of the sheet, from stations CARL and RICE on the West, at Broad River, to stations FIELDS and SMITH on the East. We had no pictures covering this section that were clear and distinct for detail or even approached the correct scale, but by studying the photographs closely and being extremely careful in the adjustment between points. I believe this area is within the allowed error and as nearly correct as it is possible for anyone, using the same photographs, to compile it. *Most of this area is inland wooded and has no important detail. Bgg*

No charts showed a single track branch line from the Seaboard Air Line tracks North of Lat.  $32^{\circ} 34'$  and West of Long.  $80^{\circ} 39'$  but our photographs showed it plainly and we have shown the branch line on our compilation. ✓

The sanded areas along Whale Branch and McCalley's Creek were interpreted to be sandy mud.

### Information from other Sources:

Field inspection by Lt. S. B. Grenell.

### Conflicting Names:

There are no conflicting names on this sheet. (No new names.)

### Comparison with other Surveys:

A comparison was made with U.S.C. & G.S. Chart No. 1240 and

437, also with the Geological Survey, Yemassee Quadriangle and discrepancies found are noted elsewhere in this report.

Junctions:

Junctions with adjoining sheets are good.

North - Sheet No. 5190  
East - Sheets Nos. 5163, 5207, 5208, and 5209.  
South - Sheets Nos. 5187 and 5188.  
West - None, (Savannah Office Compilation across Broad River).

Landmarks:

A complete list of landmarks will be submitted by Lt. I. E. Rittenberg with A. C. Sheets "E" Reg. No. T-6105, "G" Reg. No. T-6129, and "H" Reg. No. T-6130.

RECOMMENDATION FOR FURTHER SURVEYS

The compilation of this sheet as interpreted from the photographs has a probable error of not more than .3 millimeters in well defined detail of importance for charting, and not more than .6 millimeters for other data. There is a possibility of slightly greater error in places difficult to distinguish, as noted under "Interpretations". *See below.*

To the best of my knowledge, and belief, this sheet is complete for charting purposes within the accuracy stated above and no further surveys are necessary.

REMARKS

In general the photographs were badly spotted with cloud shadows, and in some cases badly out of scale and indistinct. This was especially true of the wing prints, which covered the center portion of the compilation, and had to be used since the flights were too far apart. However, the compilation is believed to be accurate as great care was used in selecting the best photographs, and adjusting between points.

Assisted by:

*E. H. Kirsch*  
E. H. Kirsch,  
Chief of Party.

Submitted by:

*M. D. Crook*  
M. D. Crook.

*There was ample control and the compilation has been carefully plotted. The estimate of the accuracy given above should be about right except for the areas listed on page 2. In those areas the estimate of 3 to 6 meters is probably exceeded somewhat.*  
B.G.G.

## GEOGRAPHIC NAMES

Survey No. 7-5189Date. Dec 19, 1934Chart No. 1240, 437Diagram No. 1240

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

Ø, Not Approved by the Division of Geographic Names, Department of Interior.

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

Status	Name on Survey	Name on Chart	New Names in local use	Names assigned by Field	Location
	Chisholmas Island *				
	This appears as Chisholm's Island on Chart 437				
		Chisholm	"	"	1240
	Broad River	do	1240		
	Port Royal Island	do	1240		
	Whale Branch	do	1240		
	McCalley Creek	do	1240		
	Whale Island	do	1240		
	Little Barnwell Island	do	1240		
	Stewarts Point	do	1240		
	Brown Island.	do	1240		
	Half Moon Island	do	1240		
	Porky Island.	do	1240		
	Albergottie Creek	do	1240		
	South Wimbee Creek	do	1240		
	Mulligan Creek	do	1240		



REVIEW OF AIR PHOTO COMPILATION NO. T-5189.

Chief of Party: E. H. KIRSCH

Compiled by: M. D. CROOK

Project: HT 162

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) ✓
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)~~
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) ✓
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." M-67

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)  
*Descriptions filed with T-6105, T-6129, T-6130.*
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)  
*Furnished with T-6105, T-6129, T-6130.*
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. *Datum station is adjusted.*
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;

E. H. Kirsch  
Chief of Party

19. Remarks after review in office:

*See following Page*

*Sam and* ✓  
Reviewed in office by: *B. G. Jones*

Examined and approved:

E. H. Green  
Chief, Section of Field Records  
L. O. Solbert  
Chief, Division of Charts

F. B. Borden  
Chief, Section of Field Work  
G. W. Gude  
Chief, Division of Hydrography  
and Topography.

Review of Air Photo Compilation No. T-5189 (1934)

Topographic Stations.

The following recoverable topographic stations are described on Form 524 shown on this compilation with the conventional circle.

Description filed under T-6105	WES (d)
" " " T-6128	BRIDGE SIGN (d)
" " " T-6129	CHIMNEY ON HOUSE (d)
" " " T-6130	(POP (d)
	(NER (d)
" " " T-6131	HEB (d)

These stations were transferred to compilation by *L.A. Nilsen*  
checked by *L.H. Benson* December 19, 1934.

Comparison with other Surveys.

(a) T-6105, T-6129, T-6130, T-6131 (1934). Only control points for aerial photographs are shown on these surveys.

(b) T-996 (1965) This survey overlaps the compilation along Whole Branch. T-1307a (1873) This survey covers the greater portion south of Whole Branch including the east shore of Broad River. Comparison with the compilation shows changes in the marsh areas. The compilation is detailed and adequate to supersede the older surveys

*Leonard A. Nilsen*  
*v B G Jones*

