DESCRIPTIVE REPORT

Air Photo

Topographic

Hydrographic

Sheet No. Reg. 5189

Field 37

State SOUTH CAROLINA

LOCALITY

FORT ROYAL ISLAND

BROAD RIVER AND VICINITY

1934

CHIEF OF PARTY

E. H. KIRSCH
Applied to Cht. 571, Aug. 10, 1935

[Signature]

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

Photographs - September 29, 1933

Scale... 1:20,000

Date of survey... October 10, 1933

Compilation - August 30, 1934

Vessel... Air Photo Compilation Party No. 21, Charleston, S.C.

Chief of party... E. E. 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

Remarks: None

Scale factor... 0.931

Datum... 1:21,482
PHOTO NOS.  
898 to 913  
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

PROJECTION CHECKED BY  
J. H. Wulbern

CONTROL PLOTTED BY  
J. H. Wulbern

CONTROL CHECKED BY  
E. S. Estridge

CONTROL PLOTTED ON PHOTOS BY  
SAVANNAH OFFICE

CONTROL CHECKED ON PHOTOS BY  
SAVANNAH OFFICE

TOPOGRAPHY TRANSFERRED BY  
M. D. Crook

TOPOGRAPHY CHECKED BY  
E. J. Anderson

SMOOTH RADIAL LINE PLOT BY  
J. E. Wulbern

RADIAL PLOT CHECKED BY  
M. D. Crook

SCALE PLOT BY  
L. C. Lands

DETAIL INKED BY  
M. D. Crook

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 830, 896 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. Eyman, 1933.


All control reduced to N. A. 1927 datum.

Datum station is adjusted.

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 Heliometric 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. 14).

Some difficulty was had in interpreting the high water line for some sections. This was especially true of the section between Lat. 32° 23’ and 32° 25’, and Long. 80° 43’ and 80° 45’, also along Whale Branch and McCalleys Creek between Long. 80° 41’ and 80° 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.

No charts showed a single track branch line from the Seaboard Air Line tracks North of Lat. 32° 31’ and West of Long. 80° 39’ but our photographs showed it plainly and we have shown the branch line on our compilation.

The sanded areas along Whale Branch and McCalleys 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 Quadrangle 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:


RECOMMENDATION FOR FURTHER SURVEYS

The compilation of this sheet as interpreted from the photographs has a probable error of not more than .5 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. Kirstch, Chief of Party.

Submitted by:
M. D. Crook.

The survey 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 millimeters is probably exceeded nowhere.
<table>
<thead>
<tr>
<th>Status</th>
<th>Name on Survey</th>
<th>Name on Chart</th>
<th>New Names in local use</th>
<th>Names assigned by Field</th>
<th>Location</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Chisholmes Island</td>
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<td>This appears as Chisholm's Island on Chart 437</td>
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<td></td>
<td>Broad River</td>
<td>do 1240</td>
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<td>Port Royal Island</td>
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<td>Whale Branch</td>
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<td></td>
<td>McCalley Creek</td>
<td>do 1240</td>
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<td></td>
<td>Whale Island</td>
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<td>Little Bornell Island</td>
<td>do 1240</td>
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<td>Stewarts Point</td>
<td>do 1240</td>
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<td></td>
<td>Brown Island</td>
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<td>Half Moon Island</td>
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<td>Porky Island</td>
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<td>Albergottie Creek</td>
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<td>South Wimpee Creek</td>
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<td></td>
<td>Mulligan Creek</td>
<td>do 1240</td>
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</tbody>
</table>
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; 28; 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. 28; 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. Blueprints 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."
8. The representation of low water lines, reefs, coral reefs and rocks, and legends pertaining to them is satisfactory. (Par. 36, 37, 60, 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)

10. A list of landmarks was furnished on Form 567 and instructions in the Director's letter of July 16, 1934, Landmarks for Charts, compiled with. (Par. 16d, e; and 60)

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. 16e)

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 64k)

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. 64)

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. Knecht
Chief of Party

19. Remarks after review in office:

See following page

Reviewed in office by: B.G. Jones

Examined and approved:

G. F. Green
Chief, Section of Field Records

C. O. Hollow
Chief, Division of Charts

F. Borden
Chief, Section of Field Work

Ward
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.

<table>
<thead>
<tr>
<th>Description filed under T-6105</th>
<th>WES (d)</th>
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<tr>
<td>&quot; &quot; &quot; &quot; T-6128</td>
<td>BRIDGE SIGN (d)</td>
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<td>&quot; &quot; &quot; &quot; T-6129</td>
<td>CHIMNEY ON HOUSE (d)</td>
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<td>&quot; &quot; &quot; &quot; T-6130</td>
<td>POP (d)</td>
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<td>&quot; &quot; &quot; &quot; T-6131</td>
<td>NBR (d)</td>
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<td>&quot; &quot; &quot; &quot;</td>
<td>HEB (d)</td>
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</tbody>
</table>

These stations were transferred to compilation by L.A. Nelson checked by J. 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-995 (1905) 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.

L.A. Nelson

6/3/36 Jones
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<tr>
<td></td>
<td>BRIARS CREEK</td>
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<td>CHISHOLM ISLAND #</td>
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<td>BROWN ISLAND</td>
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<td>HALF MOON ISLAND</td>
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<td>SOUTH WIMBEE CREEK</td>
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<td>STEWARTS POINT</td>
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<td>WHALE BRANCH</td>
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<td>WHALE ISLAND</td>
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<td>LITTLE BARNWELL ISLAND</td>
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<td>McCALLEY CREEK</td>
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<td>PORKY ISLAND</td>
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<td>MULLIGAN CREEK</td>
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<td>FORT ROYAL ISLAND</td>
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<td>ALBERGOTTIE CREEK</td>
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<td>BROAD RIVER</td>
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<td></td>
<td>Barnwell Creek</td>
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Approved Names
UNDERLINED IN RED
H.L. Fleming