

5157

U. S. COAST & GEODETIC SURVEY  
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Air  
Photo

Topographic  
Hydrographic

Field No. 5,  
Sheet No. Reg. No. 5157

U. S. COAST & GEODETIC SURVEY  
LIBRARY AND ARCHIVES

JUL 17 1934

Acc. No. \_\_\_\_\_

State South Carolina

LOCALITY

~~N. W. OF CHARLESTON HARBOR~~

ASHLEY RIVER - ~~BULLS CREEK TO GRIGGS~~

~~LANDING~~ DRAYTON

1934

CHIEF OF PARTY

E. H. Kirsch

U. S. GOVERNMENT PRINTING OFFICE: 1934

5157

Applied to chart 1239 S.M.A. Apr. 1937

PHOTO NOS.	DATE	TIME
1146 through 1161	October 12, 1933	10:40 A.M.
1293 through 1303	October 12, 1933	11:50 A.M.
PROJECTION BY	<u>L. C. Ripley</u>	3-8-34
PROJECTION CHECKED BY	<u>J. H. Wulbern</u>	3-8-34
CONTROL PLOTTED BY	<u>W. W. Johnson</u>	3-15-34
CONTROL CHECKED BY	<u>E. S. Ethridge</u>	3-16-34
CONTROL PLOTTED ON PHOTOS BY	<u>F. H. McBeth</u>	
CONTROL CHECKED ON PHOTOS BY	<u>J. F. Richardson</u>	
TOPOGRAPHY TRANSFERRED BY	<u>P. W. Hund</u>	4-20-34
TOPOGRAPHY CHECKED BY	<u>M. R. Donaldson</u>	6-18-34
SMOOTH RADIAL PLOT BY	<u>E. S. Ethridge</u>	4-14-34
RADIAL PLOT CHECKED BY	<u>L. C. Lande</u>	
SCALE PLOT BY	<u>L. C. Ripley</u>	3-5-34
DETAIL INKED BY	<u>P. W. Hund</u>	6-18-34

AREA DETAIL INKED: 85.3 Square Statute Miles.

LENGTH OF STREAMS: 3.34 St. Miles (over two hundred meters wide)

LENGTH OF STREAMS: 29.3 St. Miles (less than 200 meters wide)

LENGTH OF COAST LINE: None.

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO. 5157

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. 5

REGISTER NO. 5157 5157

State South Carolina

General locality ~~N.W. of Charleston Harbor~~ Ashley River

Locality Ashley River - ~~Bulls Creek to Grigg's Landing~~ DRAYTON

Scale ~~1:21,200~~ <sup>20,000</sup> Photographs - October 12, 1933

Date of ~~survey~~ Compilation - June 18, 1934, 19

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 P. W. Hund

Heights in feet above to ground to tops of trees

Contour, Approximate contour, Form line interval feet

Instructions dated November 10, 1934, 19

Remarks: None

## GENERAL INFORMATION

### Statistics:

The total area covered by this sheet is 85.3 square statute miles. No coastal shoreline appears on this sheet and only a small portion of the Ashley River is more than 200 meters wide - a distance of 3.34 st. miles. However, there are 29.3 st. miles of rivers and sloughs less than 200 meters from shore to shore.

### Report:

The area which this sheet covers consists of marsh, timber, and cultivated land, all of which are represented by the various symbols as shown in the topographic manual. In general, this area is of the low coastal ~~plane~~ <sup>plain</sup> type with very little relief. The field inspection, report 1933-34 covering all sheets in general will be furnished by Lt. B. H. Rigg with Sheet No. 1, Reg. No. 5153 .

### Photographs:

Photographs from part of two flights were used in compiling this sheet. The 1100 flight with photos 1146 through 1161 were taken at 10:40 A.M. on October 12, 1933, with average half tide and the 1200 flight with photos 1293 through 1303 were taken at 11:50 A.M. with average half tide. All photographs were taken with a standard U. S. Army Air Corps' 5-lens Camera.

## CONTROL

### Sources:

Triangulation stations put in by G. D. Cowie and R. L. Shoppee 1933 are as follows:

Ken	Test, Cowhead Reach
Pier	Le Pont
R. R. Semaphore	Sheehan
Seed	Drayton
Black Beacon No. 1,	Bailey
Faber	Cedar
Fan	Still
Charm	Rear Range, Cowhead Reach
Bee	Black Beacon No. 3,
Aston	Cohen
Shark	Dryer

Lambs C. D. Meaney - 1932, Recovered by K. G. Crosby, 1934.

Bula                   "                   "                   "

Means, Crummey, Fire, Waring and Pringle were put in by K. G. Crosby 1934.

Run, Jake, Han, Mid, were put in by M. O. Witherbee, 1934.

The blue triangles represent traverse stations computed and field inspection by Lt. B. H. Rigg - 1933. These stations are not marked in the field. Mr. Rigg started the traverse at station SPUR, a cowie station 1933 and ended the traverse at Station WARREN, a Meaney station 1932. The closing error of the traverse was not plottable.

The geographic positions of these traverse stations are:

Esso	-	-	Lat. 32° 47' 55.73"	Long. 80° 07' 45.15"	} *
Mill	-	-	32 48 38.70	80 08 18.25	
Bridge	-	-	32 48 59.108	80 08 48.879	
Bend	-	-	32 49 05.33	80 09 31.01	

Errors:

*Not recoverable and will not be shown on the printed compilation. Bgg.*

No errors were found in plotting control.

Discrepancies:

No control stations established by other organizations were used in the compilation of this sheet.

Remarks:

The following control stations were not used in the radial plotting or compilation of this sheet:

Aston and R.R. Semaphore. Since there was no field inspection on these two stations they were not spotted on the photos.

Seed and Bula were spotted on the photos but the field inspection seemed to be poor since these stations did not work in well with the other control stations in the smooth radial plot.

COMPILATION

Method:

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

Adjustment of Plot:

Little difficulty was encountered in transferring detail to the sheet. Nearly all the photos were very clear with little tilt, except photo 1151. This ~~sheet~~ <sup>photo</sup> was badly distorted. Some roads in the heavily timbered areas were rather indistinct, but, in general, the detail was clear.

Note ~~position of the~~ <sup>the</sup> docks mentioned as 2 miles below the ~~and~~ bridge is not indicated on the compilation and does not show on the photo graphs.

B.g.g.

### Interpretation:

~~The double tie rail road represents two tracks, and the single tie one.~~ The paved roads are indicated by two full lines; the graded or improved roads by a double dashed line; and the unimproved roads and lanes by a single dashed line.

The full lines bordered by dots represent canals with levees. These symbols appear in the area near the source of Rantowles Creek.

Additional hydrographic signal stations represented by black circles along Rantowles Creek were pricked on the photographs and radial plotted on the celluloid. These points were established by the field party of Lt. B. H. Rigg - 1934. *These are not permanent and will not be shown on the printed copies of the compilation but will remain on the celluloid. p. 99f.*

All symbols were taken from the topographic manual, except as stated above.

At the western end of the Bennet R.R. Yards several spur tracks and switches have been omitted for the sake of clearness.

The dock just below the R.R. Bridge over the Ashley River has been destroyed, while the one about one half mile below is being rebuilt after its recent destruction about one month ago. *See opposite page.*

On the sheet there is a blank strip shown to indicate a right of way for a transmission line. This starts at Lat.  $32^{\circ} 56'$  Long.  $80^{\circ} 05'$  and runs in a south, southeasterly direction to Lat.  $32^{\circ} 53'$  whence it turns almost southeastward to the limits of this compilation.

### Information from other Sources:

Field inspection by Lt. B. H. Rigg, 1934, Lt. E. H. Kirsch, 1934 and the compiler, 1934.

### Conflicting Names:

*with chart 1239* There are no conflicting names on this sheet. *Names agree*  
*No new names are shown.*

*B. H. Rigg, 1934, Lt. E. H. Kirsch, 1934, and the compiler, 1934.*  
COMPARISON WITH OTHER SURVEYS

### Junctions:

Satisfactory junctions were made with the following:

Sheet No. 9,	Reg. No. 5161	on the Northeast
24	5176	East
27	5179	East
12	5164	South
13	5165	South
6	5158	Southwest.



Landmarks:

A full list of landmarks and recoverable stations for this area has been submitted with A.S.C. "W" & "N2" by Lt. M. O. Witherbee, 1934.

N

Remarks:

Ashley River R.R. Bridge: (Bee's Ferry Bridge) Type, Single lift. Horizontal Span (Open) 18.15 meters, clearance mean high-water (closed) 4 feet. width 8.50 meters. data has not been given on Bradley Bridge over Rantowles Creek and Church Creek Bridge, since the streams which these bridges cross are no of importance to navigation. The present U.S.C. & G.S. chart No. 1239 shows a spur R.R. track running to Cohen Hill; and another running northward from the spur to Lambs Junction no longer crosses the river. These spurs have now been abandoned and consequently have been omitted from this compilation.

The same chart (1239) shows Cohen Canal branching from Sawpit Creek, however, no trace of such a canal could be determined even though a careful study of the photographs was made.

RECOMMENDATION FOR FURTHER SURVEYS

The compilation of this sheet is believed to be accurate thorough and complete for charting purposes and that no additional surveys are necessary. A probable error of not more than 3 meters may be found in detail of importance for charting and not over 6 meters in detail of lesser importance. The value of 3 to 6 meters is high for work on this reach.

A better estimate is an accuracy of elevation of 5 to 8 meters for interested points and 5 to 15 meters for other detail.

Assisted by:

Submitted by: B. G. Jones

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

P. W. Hund  
P. W. Hund

\* This bridge has evidently been rebuilt as it is entirely different from the one listed on Page 16 of the U. S. Engineers list of bridges for 1927. B. G. Jones

## REVIEW OF PHOTO TOPOGRAPHIC SURVEY NO.

Title (Par. 56) Ashley River - Bulls Creek to Gripp's Landing

Chief of Party E. H. Kirsch

Compiled by P. W. hund

Project HT-162

Instructions dated November 10, 1934.

1. The survey and preparation for it conform to the requirements of the Topographic Manual. (Par. 8; and 16, a, b, c, d, e, g and i.) ✓
2. The character and scope of the compilation satisfy the instructions and the "Notes on the Compilation of Planimetric Line Maps from Five Lens Aerial Photographs". ✓
3. The control and adjustment of the radial plot were adequate. (Par. 12, 29.) ✓
4. There is sufficient control on maps from other sources that were transmitted by the field party for their application to the charts. (Par. 28.) No information taken from outside sources.
5. High water line on marshy and mangrove coast is clear and adequate for chart compilation. (Par. 16a, 43, 44.) ✓
6. 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.) ✓
7. Important details shown on previous surveys and on the chart have been compared with this sheet and a statement has been entered in the report regarding the removal from the chart or change in position of important detail such as rocks, lights, beacons, prominent objects, bridges, docks, and structures along the water front. ✓
8. The span, draw and clearance of bridges are shown. (Par. 16c.) ✓
9. The data furnished by the Field Inspection is adequate. ✓

NOTE: Strike out paragraphs, words or phrases not applicable and modify those requiring it. Paragraph numbers refer to those in the Topographic Manual. Use reverse side for extending remarks.

10. The descriptive report covers all details listed in the Manual, so far as they apply to this survey. (Par. 64, 65 and 66.) ✓
11. The descriptive report also contains all additional information required in photo topography as prescribed in the instructions and in the "Notes on the Compilation of Planimetric Line Maps from Five Lens Aerial Photographs". ✓
12. The descriptions of recoverable stations and references to shore line were accomplished on Form 524, and scaling of positions checked. (Par. 29, 30 and 57.) Submitted with A.C. Sheets. *Planetable control survey T 6075 (934) does not show any recoverable planetable stations in this area.*
13. A list of landmarks for charts was furnished on Form 567 and scaling of positions checked. (Par. 16d, e, 60.)  
Submitted with A.C. Sheets. T 6075
14. The geographic datum of the sheet is N. A. 1927 *adjusted* and the reference station is correctly noted. (Par. 34.) *adjusted position used for the station given in the datum note.*
15. Junctions with contemporary surveys are adequate. ✓
16. Geographic names are shown on the sheet and are covered by the Descriptive Report. (Par. 64, 66k.) ✓
17. The quality of the drafting is good. (Par. 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 45, 46.) ✓
18. No additional surveying is recommended. ✓
19. Remarks: ✓

20. Examined and approved:

*E. H. Kirsch*

E. H. Kirsch Chief of Party

21. Remarks after review in office: *see review at back.*

Reviewed in office by: *B. G. Jones*

Examined and approved:

*K. T. Adams*

Asst Chief, Section of Field Records

*Division of Charts*

*L. O. Colburn*  
Chief, Division of Charts

*J. B. Borden*

Chief, Section of Field Work

*G. H. Hudson*  
Chief, Division of  
Hydrography and Topography.

REVIEW OF AIR PHOTO COMPILATION 5157 (1934)

Comparison with other Surveys

1. T-6075, aluminum planetable survey, 1:10,000, 1934, shows shore line of the Ashley River from lat.  $32^{\circ}52.7'$  to lat.  $32^{\circ}55.5'$ . This shore line agrees very closely with the compilations. There are a few short sections where the surveys differ by 5 to 10 meters which are due to small differences in interpretation and to stretching between rod readings.

2. T-2164 and T-2166 (1894-1895). These surveys show sections of the Ashley River. Comparison indicates only small changes in shoreline. The compilation is detailed and adequate to supersede these older surveys.

3. The <sup>wreck</sup> ~~marsh~~ shown just above Bees Ferry Bridge was transferred from H-5456 in this office. There is no conflict between the compiled shoreline and soundings on H-5456.

*B. G. Jones*