

5169

U. S. COAST & GEODETIC SURVEY
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Form 504
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DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
R. S. PATTON, DIRECTOR

DESCRIPTIVE REPORT

Air
Photo

Topographic }
Hydrographic }

Field No. 17,

Sheet No. Reg. No. 5169

State South Carolina

LOCALITY

SOUTH EDISTO RIVER

ST. HELENA SOUND TO SCANAWAH ISLAND

1934

CHIEF OF PARTY

E. H. Kirsch

U. S. GOVERNMENT PRINTING OFFICE: 1934

5169

Applied to Chart 793 February 10, 1936. H. M. a. L. v. n.
" " " 1239 April 1937 J. M. d.

PHOTOS No.

M-58 - 807K-8 to M-59 - 807K-8
M-60 - 807J-8 to M-65 - 807J-8

DATE

October 25, 1933
October 25, 1933

TIME

11:30 A.M.
11:30 A.M.

PROJECTION BY

L. C. Ripley 1-16-34
L. C. Ripley

PROJECTION CHECKED BY

E. H. Kirsch 1-16-34
E. H. Kirsch

CONTROL PLOTTED BY

M. R. Donaldson 1-17-34
M. R. Donaldson

CONTROL CHECKED BY

T. P. Mitchell 1-18-34
T. P. Mitchell

CONTROL PLOTTED ON PHOTOS BY

J. F. Richardson
J. F. Richardson

CONTROL CHECKED ON PHOTOS BY

F. H. McBeth
F. H. McBeth

TOPOGRAPHY TRANSFERRED BY

H. W. Langley 5-21-34
H. W. Langley

TOPOGRAPHY CHECKED BY

E. H. Kirsch 5-21-34
E. H. Kirsch

SMOOTH RADIAL LINE PLOT BY

H. W. Langley 3-7-34
H. W. Langley

RADIAL PLOT CHECKED BY

L. C. Lande 3-7-34 & 5-16-34
L. C. Lande

SCALE PLOT BY

J. H. Wulbern 1-5-34
J. H. Wulbern

DETAIL INKED BY

H. W. Langley 5-23-34
H. W. Langley

AREA COVERED BY SHEET: 17.3 Square Statute Miles.

LENGTH OF SHORELINE: 20.7 St. Miles (more than 200m from opposite shore)

LENGTH OF STREAMS: 40.2 St. Miles (Rivers and sloughs less than 200m wide)

LENGTH OF COASTLINE: 4.0 Statute miles.

DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY

REG. NO. 5169

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. 17

REGISTER NO. 5169 5169

State South Carolina

General locality South Edisto River

Locality St. Helena Sound, to Swanawah Island

Scale 1:10,000 Photographs - October 25, 1933
Date of survey

Vessel Air Photo Compilation Party No. 21.
Compilation - May 23, 1934.

Chief of party E. H. Kirsch

Surveyed by See data sheet in descriptive report.

Inked by H. W. Langley

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.

GENERAL INFORMATION

This sheet consists almost entirely of streams and marsh area. The only aids used in the compilation of this sheet were secured from the field inspection reports, and additional information furnished by Lt. B. H. Riggs' party in questionable areas.

The accompanying "Notes on Compilation" gives all data in connection with the compilation of this sheet.

This sheet was compiled from photographs taken by the U.S. Army Air Corps' single lens camera, photograph numbers as follows:

M-58 807 K-8 to M-59 - 807 K-8
M-60 807 J-8 to M-65 807 J-8

CONTROL

Sources:

The following sources of control were used in the compilation of this sheet:

Triangulation by C. A. Egner 1933
1934 Aluminum control Sheets "S" Reg. No. *T-6106*, "T" Reg. No. *6085*, by Lt. B. H. Riggs' party, and sheet "L" Reg. No. *-----*, by Lt. R. P. Eymans' party.
Field sheet "L" is lost. See Review
Field inspection points by Lt. B. H. Riggs' party - 1934 on A.C.S. "T" Reg. No. *6085*, photo M58 & M59 - 807K.

The geographic positions of the field party were used; these were field reduced to North American 1927 datum.

The field inspection points used as control in the compilation of this sheet were spotted on the photographs in the field, located, as shown on aluminum control sheet "T" Reg. No. *6085*, by plane-table, and their position transferred to the celluloid sheet as blue circles (o).

The coast high water line East of triangulation station OTT was taken from aluminum control sheet "T". That portion of the low water line as shown on aluminum control sheet "T" was transferred to this sheet.

The dock at triangulation station DODGE and that portion of the high water line of the South Edisto River west of Long. 80° 25' were taken from aluminum control sheet "S" Reg. No. *T-6106*.

The beach high water line West of triangulation station SOUND and North to triangulation station ASHE was taken from aluminum control sheet "L" Reg. No. *-----*. *Plane table sheet "L" has been reported lost by the Field Party*
L.A.M.

Errors:

Triangulation station JEFF is spotted incorrectly on the photographs. No other errors were noted.

Discrepancies:

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

COMPILATION:Method:

The usual radial line method of plotting as described in the U.S.C. & G.S. "Notes on the Compilation of Planimetric Line Maps from 5-lens Aerial Photographs"- 1933 edition was used for the compilation of this sheet.

Adjustment of Plot:

The photographs used in this compilation appear to be free from excessive tilt and scale fluctuation and the radial plot required no unusual adjustment.

Remarks on Adjustment:

The smooth radial plot was made with no difficulty; but, after the compilation was completed, the high water lines on aluminum control sheet "T" Reg. No. 6085, would not agree with this air photo sheet with a difference of approximately 30 meters, due to the strong control in running the traverse on the aluminum control sheet, it was felt that the compilation was in error; hence more control for this sheet was established by field inspection as previously mentioned in the paragraph on "CONTROL" when these points were established, transferred to the celluloid sheet, and spotted on the photographs, it was noted in the radial plot that the Eastern edge of the photos had shifted down about 30 meters without affecting its three point fix with triangulation stations SOUND, OTT, ASHE, and JEFF. This was due to an error in the field inspection of triangulation station JEFF, and also the fact that all the previously established control stations on this sheet are on the western edge, which allowed the eastern edge to drop down without affecting the fix and the good intersection of the radial lines. *See note below*

Therefore all the detail East of an approximate line from triangulation station OTT to the Northern edge of Bailey Creek was erased with steel wool and the celluloid resurfaced with pumice.

The radial plot was then made over, using the field inspection points as additional control. The error in the positions of

Note Δ stas. Sound and Ott very close together so that the photo was actually fixed on 3 stas. rather than 4 with the right object spotted wrong. Bgg

the radial points as previously plotted gradually decreased from approximately 30 meters in the S.E. corner to an unplottable amount at Bailey Creek. No difficulty was experienced in making the second radial line plot. The first plot had been made before the aluminum sheet was available.

Interpretation:

The only symbols used were the usual graphic symbols as approved by the Board of Surveys and Maps (1932). No difficulty was experienced in the interpretation of the photographic detail.

The small stream in the S.E. Corner of this sheet with no visible outlet is cut off from the sound by a bank of sand, and is gradually filling up with sand.

The strip of marsh outside of the high water line just south of and around the point of land N.W. of triangulation ASHE is surrounded by water at high tide.

The shoal areas shown on this sheet were roughly sketched in from their light appearance on the photographs, and are probably not true to actual conditions.

No definite high ground line was drawn in where there was no definite line on the photos.

Information from other Sources:

The coastal high water line was run in by the topographic party on aluminum control sheets "T" Reg. No. 6085, and "L" Reg. No. ~~6086~~.
Field sheet "L" is lost. See note in review of back. Run.

The dock at triangulation station DODGE and the high water line of the S. Edisto River West of Long. 80° 25' was run in by the topographic party on aluminum control sheet "S" Reg. No. T-6106.
1:10,000 Photos missed this section of shore line.

Along the South Edisto River quite a bit of shore line was rodged in on A.C.S. "S" Reg. No. T-6106. The majority of rodged points agreed with the compiled shore line of this sheet, but where they did not, the compilation was changed to agree with the A.C.S. In some cases the shore line was sketched by the topographer between rod readings failed to check the compiled shore line by from 4 to 6 meters, but when the rodged points fell on the compiled shoreline, the intermediate high water line as traced from the photos was considered correct.

What appears to be a dock at station Rac is a stone jetty with piling at the end as marked on Topo Sheet "S" Reg. No. T-6106.

Conflicting Names:

There are no names on this sheet conflicting with names in the U.S.C. & G.S. Charts of this area. *New names are shown, have been submitted for approval.*

Comparison with other Surveys:

Satisfactory junctions were made with the following sheets:

North - Sheet No. 16, Reg. No. 5168
West - Sheet No. 34, Reg. No. 5186

The junction of the high water line on this air photo sheet with the high water line transferred from aluminum control sheet "S" to this sheet was satisfactory.

The high water line on the western edge of Fish Creek at its entrance to the sound as shown on aluminum control sheet "T" Reg. No. ~~T6085~~ does not agree with this air photo sheet by a few meters. It is felt that this difference is due to a difference in interpretation of the high water line.

The coastal high water line as transferred from aluminum control sheets "L" Reg. No. ~~---~~, and "T" Reg. No. ~~T6085~~ to this sheet agrees with what appears to be the high water line on the photographs.

Field sheet "L" is lost. See review at back. R. W. Langley

Landmarks:

The landmarks for charts, and marked topographic stations, included in this area have been submitted with aluminum control sheets "T" Reg. No. ~~T6085~~, and "S" Reg. No. ~~T6106~~, Lt. B. H. Riggs' Party - 1934 and with A.C.S. "L" Reg. No. ~~T6145~~, Lt. R. P. Eyman, Chief of Party, 1934.

"L" Reg. No. --- Lt. R. P. Eyman, Chief of Party, 1934.

Field sheet "L" is lost. See review at back. R. W. Langley

RECOMMENDATIONS FOR FURTHER SURVEYS

The compilation of this sheet is believed to have a probable error of 3 meters in well defined detail of importance for charting and of 6 meters for other data. *See below*

To the best of my knowledge this sheet is complete in all detail of importance for charting purposes within the accuracy stated above, and no additional surveys are required.

REMARKS

The photographs covering this area do not include the S. Edisto River West of Long. 80° 25' since it was such a small amount, this part of the S. Edisto River as mentioned above was run in by plane-table on aluminum control sheet "S" and transferred to this air photo topo sheet.

Assisted by:

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

Submitted by:

H. W. Langley
H. W. Langley.

Note: The estimate of accuracy given above is probably a little high. A better estimate is 3 to 4 meters for interested points and 3 to 10 meters for other detail. B. G. Jones

REVIEW OF PHOTO TOPOGRAPHIC SURVEY NO. *T-5169.*

Title (Par. 56) South Edisto River

Chief of Party E. H. Kirsch

Compiled by H. W. Langley

Project HT-162

Instructions dated November 10, 1933

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.)~~ ✓
No bridges.
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.S.
T-6085, and T-6106
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. S.
14. The geographic datum of the sheet is N. A. 1927 and the reference station is correctly noted. (Par. 34.)
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 following page

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

Examined and approved:

C. H. Green
Chief, Section of Field Records

L. O. Solbut
Chief, Division of Charts

F. S. Borden
Chief, Section of Field Work

G. H. Hinde
Chief, Division of
Hydrography and Topography.

REVIEW OF AIR PHOTO COMPILATION NO. T-5169

Topographic Stations:

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

Description filed with T-6085	Gin (d)
Descriptions filed with T-6106	(Cow (d)
	(Beacon No. 8 (d)
	(Beacon No. 10 (d)
	(Beacon No. 12 (d)
	(Fenwick Cut Beacon (d)

Gin (d) was plotted by D. H. Benson September 4, 1934, checked by *D. H. Benson*
L. A. McGann January 11, 1935. Cow (d) was plotted by *L. A. McGann*
L. A. McGann January 11, 1935, checked by *D. H. Benson* January 11, 1935. The other stations listed above were plotted by the field party when the compilation was made.

Comparison with Other Surveys:

T-6085 (1934). Agreement with this sheet is satisfactory and all differences are discussed completely in the report on Page 4.

T-6106 (1934). This sheet also agrees satisfactorily with the compilation and all differences are discussed in the report on Pages 3 and 4.

T- Field No. L (1934) has been reported lost in the field but the detail has been applied to the compilation as stated in the preceding report. *Descriptive Report for Field sheet "L" is filed with descriptive report for H-9721.*

T-508 (1852); H-620 (1856-57); T-679 (1856-57); H-3667 (1914); T-3815 (1920). These surveys cover portions of this sheet. The hydrographic sheets show shoreline in addition to the soundings. The greatest change is found on the Coast of Otter Islands; the least change in the interior. This compilation ~~is adequate and~~ complete in detail so that it is adequate to supersede the old surveys.

L. A. McGann.

B. G. Jones

Survey No. T-5169

GEOGRAPHIC NAMES

Chart No. 1239, 436Date. Feb 6, 1935

S.C.

Names underlined in red approved March 13, 1935Harlow BaconDiagram No. 1239U. S. COAST & GEODETIC SURVEY
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*, Approved by the Division of Geographic Names, Department of Interior.

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

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

Q Under investigation as to possessive S

Status	Name on Survey	Name on Chart	New Names in local use	Names assigned by Field	Location
	<u>Fenwick Island</u>	Ch. 1239			
	<u>Raccoon Island</u>	do			
	<u>Scanawah Island</u>	do			
	<u>South Edisto River</u>	do			
	<u>Hutchinson Island</u>	do			
	<u>Ashepoo River</u>	do			
	<u>Jefford Creek</u> ^Q	do	Spelled Jeffords on P.M.M.		
	<u>Fish Creek</u>	do	Do not change - unless D.G.N. decides ^{H.B.}		
	<u>Otter Islands</u>	do			
	<u>Pine Island</u>	do			
	<u>Bailey Creek</u> ^Q	do	Let. GN 34 reports Bailey's Island as the local usage Bailey Cr should be the same await decision of D.G.N. ^{H.B.}		
	<u>Bailey Island</u> ^Q	do			
	<u>Sea brook</u>	do			
	<u>Fenwick Cut.</u>	none.			
	<u>St Helena Sound</u>	Ch. 1239, 436			
Names underlined in red agree with Charts 436 - 1239 - P.M.M. - H 5526 H.L.F.					