

5186

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. 34

Sheet No. Reg. No. 5186

State South Carolina

LOCALITY

ST. HELENA SOUND

HUTCHINSON ISLAND TO NEW CHEHAW RIVER

1934

CHIEF OF PARTY

E. H. Kirsch

U. S. GOVERNMENT PRINTING OFFICE: 1934

applied to Chart 838, Nov. 1935; W.A. Bruder
applied to Chart 793 February 5, 1936. H.E. MacEwen.
" " " 1239 April 1937 F.M. d.

Applied to Chart 838, Nov. 1935 W.A. Bruder

SHEET NO. 34
REG. NO. 5186

PHOTOS NO.
M-50 807F-8 through M-57 - 807J-8

DATE
October 25, 1933

TIME
11:15 A.M.

PROJECTION BY

L. C. Ripley
L. C. Ripley

4-11-34

PROJECTION CHECKED BY

E. H. Kirsch
E. H. Kirsch

4-11-34

CONTROL PLOTTED BY

L. C. Lande
L. C. Lande

CONTROL CHECKED BY

E. S. Ethridge
E. S. Ethridge

CONTROL PLOTTED ON PHOTOS BY

L. C. Lande
L. C. Lande

CONTROL CHECKED ON PHOTOS BY

E. S. Ethridge
E. S. Ethridge

SMOOTH RADIAL PLOT BY ✓

E. S. Ethridge
E. S. Ethridge

6-25-34

RADIAL PLOT CHECKED BY

E. H. Kirsch
E. H. Kirsch

DETAIL INKED BY

R. G. Hickson
R. G. Hickson

7-11-34

AREA DETAIL INKED: 11.2 sq. statute miles.

LENGTH OF STREAMS: 4.9 statute miles (over 200m wide).

LENGTH OF STREAMS: 46.3 statute miles (less than 200m wide).

LENGTH OF COASTLINE: 6.1 statute miles.

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. 34

REGISTER NO. 5186

State South Carolina

General locality St. Helena Sound

Locality Hutchinson Island to New Chahaw River

Photographs - October 25, 1933

Scale 1:10,000 Date of ~~survey~~ 19

Compilation - July 11, 1934

Vessel Air Photo Compilation Party No. 21,

Chief of party E. H. Kirsch

Surveyed by See data sheet in descriptive report.

Inked by R. G. Hickson

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.

1.

GENERAL INFORMATION

Statistics:

The total area covered by this sheet is 11.2 square statute miles. There are 6.1 statute miles of the coast line of St. Helena Sound, 4.9 statute miles of shore line of rivers over 200 meters wide, and 46.3 statute miles of streams less than 200 meters wide.

Report:

Except for a few scattered areas of high ground, the area covered by this sheet consists of salt marsh and muddy sand along the shores of the streams. The small patches of high ground are either grass lands or covered with palmetto, pines, and scrub oaks. A general field inspection report covering all sheets will be furnished by Lt. R. P. Eyman, Chief of Party, 1934, with Sheet No. 1, Reg. No. 5153.

B. H. R. 99

Photographs:

This sheet was compiled from photographs number M-50 807F-8 through M-57 - 807J-8 taken by the U. S. Army Single lens Camera. These pictures were taken along Lat. $32^{\circ} 31'$, between Long. $80^{\circ} 32'$ and Long. $80^{\circ} 24'$, running from West to East, on October 25, 1933 at 11:15 A.M., about 1 hour and a half before a high tide of 6 feet.

CONTROL

Sources:

Triangulation station ABE put in by R. P. Eyman, Chief of Party, 1934.

Triangulation station ASHE was established in 1914 and recovered by C. A. Egner in 1933.

All other triangulation stations by C. A. Egner, Chief of Party, 1933.

The following topographic stations located on Aluminum control sheets by R. P. Eyman, 1934, were used as control:

Aluminum Control Sheet "I" Reg. No. ~~5153~~. (cf. Review) at back

	Lat.	Long.	meters
HOG ✓	$32^{\circ} 30'$	$485 (1363)$	Long. $80^{\circ} 27'$ 34 (1532)
PAL ✓	32 30	352 (1496)	80 27 510 (1056)
Joy(d) 604	32 29	1712 (136)	80 27 1042 (524)
AN (d)	32 31	906 (942)	80 28 1558 (08)
ADD ✓	32 31	318 (1530)	80 28 392 (1174)

YOU ✓	32 31 170 (1678) ;	80 29 1564 (02)
VAN ✓	32 29 1830 (18) ;	80 29 526 (1040)
ELM ✓	32 30 1353 (495) ;	80 30 184 (1382)

Aluminum Control Sheet "L" Reg. No. . *(cf. Review at back.)*

LEG ✓	32 29 1645 (203) ;	80 25 1282 (285)
SOC ✓	32 29 1732 (116) ;	80 25 85 (1482)

Errors:

Topographic station ~~AN~~^{KAN(d)} on photo No. 53 and topo station SOC on photo No. 56 were apparently spotted wrong and were not used in compiling the sheet.

Discrepancies:

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

COMPILATION

Method:

The standard radial line method was used in compiling this sheet.

Adjustment of Plot:

No difficulty was experienced in tracing the detail of this sheet as the photographs were in good scale, had very little tilt, and in general the detail was clear.

Interpretation:

Standard symbols as shown in the topographic manual were used in the compilation of this sheet. There is considerable muddy sand along the shores of the streams and the regular sand symbols was used to show this.

Topographic stations ADD and LEG are located on small marsh islands but as these islands were so small no attempt was made to outline them.

The topo stations used as control on this sheet are indicated by small black circles.

The low water line on this sheet was taken from the 1:10,000

single lens photographs. However on photo No. 541, five lens, 1:20,000 scale, the low water line shows as being considerably further out from the high water line than it appears on the single lens photos. The reason for this is that the 5-lens photos were taken about 1 hour after low tide and the single lens 1 hour and a half before high tide.

Information from other sources:

Field inspection by Lt. R. P. Eyman, chief of Party, 1934.

Conflicting names:

No conflicting names were recorded by the field inspection party. ~~There were no conflicting names.~~ *See name sheet. No new or conflicting names are shown.*

COMPARISON WITH OTHER SURVEYS

B. G. J.

Junctions:

Satisfactory junctions were made with the following sheets:

Sheet No. 17,	Reg. No. 5169 on the East
4,	5156 on the North
11,	5163 on the North

Landmarks:

A list of landmarks and recoverable stations of this area has been submitted by Lt. R. P. Eyman, Chief of Party, 1934 with aluminum control sheets "I" Reg. No. _____, and "L" Reg. No. _____. *See names at back.*

RECOMMENDATION FOR FURTHER SURVEYS

The compilation of this sheet is believed to have a probable error of not more than 3 meters in well defined detail of importance for charting and of not more than 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.

Assisted by:

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

Submitted by:

R. G. Hickson
R. G. Hickson.

The value of 3 to 6 meters given above is probably a little high. A better estimate is an accuracy of location of 3 to 5 meters for interconnected points and 3 to 8 meters for other detail.
B. G. Jones

REVIEW OF PHOTO TOPOGRAPHIC SURVEY NO. *T-5186*

Title (Par. 56) St. Helena Sound

Chief of Party E. H. Kirsch

Compiled by R. G. Hickson

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 shown
- ✓ 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. (Air photo control sheets have been lost, sheets "I" and "L" forms 524 on hand but not filed under any sheet. D. Reports for "I" and "L" sheets are filed with report H-5721)
- ✓ 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: *See following page.*

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: *Leonard A. Hulsant* *B. G. Jones*

Examined and approved:

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

F. S. Borden
Chief, Section of Field Work
G. H. Hude
Chief, Division of Hydrography and Topography.

REVIEW OF AIR PHOTO COMPILATION T 5186

1. Comparison with Contemporary Surveys:

a. Graphic control surveys, Field Nos. I and L (1934). These plane table surveys were destroyed by fire aboard the NATOMA but tracings were saved and forwarded to the office. These tracings are now filed with H 5721 (1934). The tracings show only plane table stations in the area of this compilation. Recoverable \odot Joy and \odot An were transferred to the compilation from plane table survey I by the field party. The positions shown on the compilation check with the tracings. Descriptions of \odot Joy and \odot An are filed under H 5721. The two USE Bench Marks and beacon No. 4 shown on this compilation were transferred from the tracings of sheets ~~1-4~~ in this office. USE Bench Mark shown on the tracing for survey I at Lat. $32^{\circ} 30.7'$, Long. $80^{\circ} 30.1'$ has not been transferred to the compilation as the station is described as "Below high water and rapidly being washed out".

2. Comparison with Previous Surveys:

a. Comparison with T 611 (1856) and T 1307 b (1873) shows numerous changes in the marsh shore line particularly in the small points. The island shown on T 611 at Lat. $32^{\circ} 29.7'$, Long. $80^{\circ} 28.6'$ has disappeared and frequent changes have occurred all along the south side of Ashe Island. This detail has been checked against the photos in this office. The compilation is complete and adequate to supersede the sections of T 611 and T 1307 which it covers.

3. Comparison with Chart 435:

a. Shore line changes are discussed in the preceding paragraph. The three lights shown on chart 435 on Combabee Bank are outside the limits of the photographs and of this compilation. Beacon "4" on Combabee Bank is shown on the compilation.

*This has been
changed and the tracings
are now filed as T4928a*

9/11/35

B.G. Jones

B.G. Jones
May 22, 1935.

T4928b

Survey No. 5186

Chart No. 1240-2

Diagram No. 1240-2

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

[illegible]