

5168

U. S. COAST & GEODETIC SURVEY
AND ARCHIVES

JAN 23 1935

Acc. No. _____

Form 504
Ed. June, 1923

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. Patton, Director

State: South Carolina

DESCRIPTIVE REPORT

Air
Photo

Topographic
~~Hydrographic~~

Sheet No. Field No. 16
Reg. No. 5168

LOCALITY

SOUTHWEST OF CHARLESTON HARBOR

S. EDISTO RIVER - JEHOSSEE ISLAND

1934

CHIEF OF PARTY

E. H. Kirsch

U. S. GOVERNMENT PRINTING OFFICE: 1921

5168

Applied to Chart 793 February 6, 1936 H. MacSwan
" " " 1239 April 1937 E. M. A.

PHOTOS NO
M-66 to M-69 - 807J-8
M-103 to M-106 - 807J-8
M-112 to M-119 - 807J-8

DATED
October 25, 1933
November 9, 1933
November 9, 1933

TIME
11:40 AM 1h 44m before High of +6.6
11:05 AM 1h 38m before high of +5.8
11:30 AM 1h 13m before high of +5.8

PROJECTION BY

L. C. Ripley
L. C. Ripley

1-15-34

PROJECTION CHECKED BY

J. H. Wulbern
J. H. Wulbern

1-15-34

CONTROL PLOTTED BY

T. P. Mitchell
T. P. Mitchell

1-17-34

CONTROL CHECKED BY

M. R. Donaldson
M. R. Donaldson

1-18-34

TOPOGRAPHY TRANSFERRED BY

H. W. Langley
H. W. Langley

TOPOGRAPHY CHECKED BY

E. H. Kirsch
E. H. Kirsch

SMOOTH RADIAL LINE PLOT BY

L. C. Lande
L. C. Lande

3-9-34

RADIAL PLOT CHECKED BY

E. H. Kirsch
E. H. Kirsch

SCALE PLOT BY

J. H. Wulbern
J. H. Wulbern

1-5-34

DETAIL INKED BY

H. W. Langley
H. W. Langley

5-4-34

AREA COVERED BY SHEET: 23.4 Square statute miles.

LENGTH OF SHORELINE: 23.8 statute miles (more than 200 meters from nearest opposite shore)

LENGTH OF STREAMS: 26.4 statute miles (Rivers and sloughs less than 200m wide)

LENGTH OF COASTLINE: None.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 5168

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. 16

REGISTER NO. 5168

5168

State South Carolina

General locality Southwest of Charleston Harbor

Locality S. Edisto River - JEHOSSEE ISLAND

Scale 1:10,000 Photographs - October 25, 1933
Date of survey November 9, 1933, 19
Compilation - May 4, 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 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

In general, the area covered by this sheet is low and mostly marsh, consisting mostly of abandoned rice fields which have grown up in marsh grass. This general report, and additional information in questionable areas was furnished by Lt. B. H. Rigg - 1934.

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, photo numbers as follows: M-66 - 807J-8 to M-69 807J-8; M-103 807J-8 to M-106 - 807J-8; and M-112-807J-8 to M-119 - 807J-8 Inc.

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 "R" Reg. No. *T-6024*, "S" Reg. No. *T-6106*, by Lt. B. H. Riggs' Party.

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

Errors:

No plottable errors were found in the control of this sheet.

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.

Adjustment of Plot:

No unusual adjustment was required in the radial plot.

* The graphic symbol used in this compilation to show dikes has not been approved by the Board of Surveys and Maps. The reason for its use is explained below in this article. LAM.

The photographs were free of excessive tilt and scale fluctuation.

Interpretation:

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

The wooded and grassed area in the northwest corner of the sheet is very low, consisting of trees, bushes and short grass.

The adjoining area on both sides of Watt's Cut which is represented by scattered sand is dredge spoils. Due to this fact, this area is built up land and grass is beginning to grow on it.

The dock on South Edisto River near triangulation station PECK is a fishermans' dock with a shack on it. The same applies to the dock near triangulation station HOS.

The dotted square approximately 200m west of triangulation station HOS is a delapidated brick rice mill. There is also a ~~delapidated~~ dock on the stream east of and adjoining the mill. *delapidated.*

The abandoned rice fields on this sheet have grown up in marsh grass and consist entirely of ditches and dikes. The ditches have been shown as solid lines. The dikes have been represented by a double row of staggered dots. This symbol was used for the dikes instead of the hachures because in most cases the dikes were too narrow to be shown by hachures.

These ditches have recently been reopened, the dikes rebuilt, and the flood gates repaired by Mr. Dodge, who owns this property, in order that he might flood the old rice fields for hunting purposes.

Information from other Sources:

Any additional information used in the compilation of this sheet was received by field inspection and reports from Lt. B. H. Riggs' party - 1934. *Lt. Riggs' Report is filed with Desc. Report for T-5153.*

Conflicting Names:

There are no names on this sheet conflicting with names shown on the U.S.C. & G.S. Charts of this area. *No. new names.*

COMPARISON WITH OTHER SURVEYS

Junctions:

Satisfactory junctions were made with sheet 5167 on the East, and with sheet 5169 on the South.

*Larm
- 1934*

* The dock referred to here lies about 900 meters north of Samp. on the west bank of the river. Only the end point of this dock is shown on T-6082b. This dock which does not appear on the photos has been added to the compilation by joining the shore with a line from the ^{end} point of dock. Lat. $32^{\circ}36.8'$; Long $80^{\circ}25.1'$

LAM. ✓ B.G. Jones

The value of 3 to 6 meters given on the opposite page is a little high for work on this scale. A better estimate is an accuracy of location of 3 to 5 meters for intersected points and 3 to 10 meters for other detail.

B.G. Jones

In the comparison of this air Photo sheet with aluminum control sheets "R" and "S" Reg. Nos. 7-6022^b, 7-6006, the high water line agree with the exception of a few points. It is felt that the failure of these points to agree is due entirely to a difference of interpretation of the high water line, also the fact that the photographs were taken approximately six months before the aluminum sheet was made.

All the docks shown on aluminum control sheets R and S agree with the ones on this Air Photo Sheet.

The dock near triangulation station SAMP as shown on aluminum control sheet "R" Reg. No. 7-6082^b, does not appear on the photographs; hence, it is not shown on this air photo sheet. ^{*} See opp page.

Landmarks:

The landmarks for charts and marked topographic stations included in this area have been submitted with aluminum control sheets "R" Reg. No. 7-6022^b, and "S" Reg. No. 7-6006.

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.

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. See opposite page

Remarks:

At triangulation stations RAIL and BRIDGE, the southern point of the two in the triangles is the correct position. At triangulation station HOS the eastern edge of the northern hole is the correct position.

The hydrographic signals, as shown along Dawho River and Watts Cut, were spotted on the photos in the field and radial plotted on this sheet, and are represented by Black circles (o). There are not recoverable and will not show on the printed copies of the compilation but will ~~show~~ remain on the collodian. B.G. Jones

Assisted by:

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

Submitted by:

H. W. Langley
H. W. Langley.

REVIEW OF PHOTO TOPOGRAPHIC SURVEY NO. *T-5168.*

Title (Par. 56) S. Edisto River - JEHOSEE ISLAND

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 control sheets. *{T-6106
T-6082k.
Plotted on prof sheet Dec. 1, 1924.
L.A.M.*
13. A list of landmarks for charts was furnished on Form 567 and scaling of positions checked. (Par. 16d, e, 60.) Submitted with control sheets.
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 pages.

20. Examined and approved:

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

21. Remarks after review in office:

Reviewed in office by:

Leonard A. McNamee / *B. G. Jones*

Examined and approved:

E. K. Green
Chief, Section of Field Records
L. O. Salbut
Chief, Division of Charts

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

Note Graphic control survey T6082a shows
a small insert for Lat. $32^{\circ}37'$ Long $80^{\circ}21'$
giving location of 3 Beacons. This insert was
passed over in the office verification
The Beacons have been added on a
supplemental for ~~T608~~ 5168 on 1/20/36 and
will be added to the plates at a later printing.
Transfer of Bns. by LAM. and checked by B.G.f.
B.G.f. 1/20/36.

REVIEW OF AIR PHOTO COMPILATION NO. T-5168 (1934)

Topographic Stations:

The list of recoverable topographic stations given below are described on Form 524:

Filed under T-6082b
Air Photo Control

(Beacon No. 3 (Tre) (d)
(Fol (d)
(Bat (d)
(Beacon No. 2 (Quo) (d)

Filed under T-6106
Air Photo Control

(Large White House East Chimney (d)
(Beacon No. 1 (d)
(Beacon No. 4 (d)
(Beacon No. 6 (d)

Stations plotted L.A.M. *L.A.M.*
Checked by D.H.B. *D.H.B.*

Comparison with Other Surveys:

See note on opposite page

There is satisfactory agreement with T-6106 (1933). With T-6082b (1933) the following discrepancies were noted: (1) On the west bank of the S. Edisto River there is a difference of shoreline - lat. $32^{\circ} 37'$; long. $80^{\circ} 23.4'$ (at the bend). (2) On the east bank of the S. Edisto River - difference of shoreline - lat. $32^{\circ} 36.3'$; long. $80^{\circ} 25.2'$ (at the bend) (3) On the west bank of the same river - difference of shoreline Lat. $32^{\circ} 37.7'$, long. $80^{\circ} 24.5'$ (at the bend) (4) On the west bank of the same river. Northwest of Beacon No. 2(d) - difference of shoreline. (5) On the west bank of the same river - difference of shoreline lat. $32^{\circ} 39.2'$, long. $80^{\circ} 23.5'$ (at the bend). These differences are mentioned in general under "Comparisons with Other Surveys", Page 2 of the Descriptive Report. The tracing of detail from the photographs at these places has been checked in the Washington office. No error was found in this step of the work. The differences average between 5 and 8 meters with a maximum difference of about 15 meters as

noted under No. (1) on preceding page in lat $32^{\circ} 37.0'$, long. $80^{\circ} 23.4'$.

The compilation has not been changed to agree with T-6082b. With the exception of No. (4) all differences occur at point of land and are probably due to a combination of natural changes and differences of interpretation.

Comparison was also made with T-679 (1856-57). There is considerable change. This compilation supersedes T-679, which is the only previous topographic survey of this area by this Bureau.

Leonard A. Melbauer
L.A.M.

B.G. Jones

List showing the discrepancies between the geodetic and the Engineer Corps' Plain Co-ordinates Position

Sheet No. 16, Reg. No. 5168

Origin Δ^H 32-46-1476.6 (371.7)
80-06-871.9 (6898)

Station	Geographic Positions		Engineers	Coordinates	G.P. from Origin Δ^H Through Engineers Co-ordinates		Correct to Engineers Co-ordinates According to Sign	Corrected to Engineers Co-ordinates N.A. 1927 datum	
		meters	Lat.	Dep.	Lat.	Long.			
USED Watts	32	37	51.3 (1796.9)	59,247.69 ft	79,854.15 ft	23.6m	182.9m	+ 27.7	18,086.4m
Engineers, N.A. 1927 adjusted	80	22	195.9 (368.4)	18,058.7m	24,339.5m			+ 13.0	24,352.5m
USED 68	32	38	333.0 (1515.1)	58,329.88 ft	79,261.73 ft	302.9m	2.4m	+ 30.1	17809.0m
Engineers, N.A. 1927 Field Reduced	80	22	15.6 (1548.6)	17778.9m	24,159.0m			+ 13.2	24,172.2m