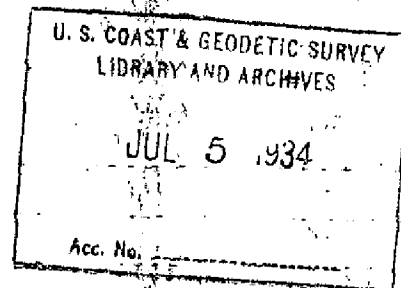


5183



Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
R. S. Patton, Director

State: South Carolina

DESCRIPTIVE REPORT

Air Photo Topographic Field 31,
~~Hydrographic~~ Sheet No. Reg. No. 5183

LOCALITY

CHARLESTON HARBOR AND VICINITY

LIGHTHOUSE INLET

1934

CHIEF OF PARTY

E. H. Kirsch

8244

Applied to chart 1234 Apr. 1937 2 m. u.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 5183

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. 31

REGISTER NO. 5183

State South Carolina

General locality Charleston, Harbor and Vicinity

Locality Lighthouse Inlet

Scale 1:10,000 Photographs - November 10, 1933
Date of survey - November 17, 1933

Compilation - April 7, 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 P. W. Hund

Heights in feet above --- to ground to tops of trees

Contour, Approximate contour, Form line interval --- feet

Instructions dated November 10, 1933., 19

Remarks:

PHOTOS NO.

M-32 - 823B-8 and M-65 - 823B-8

DATE

November 10, 1933

TIME

11:55 AM 1h 26m before high tide.

November 17, 1933

11:15 AM 2h 24m before low tide.

PROJECTION BY

L. C. Ripley
L. C. Ripley

2-14-34

PROJECTION CHECKED BY

J. H. Wulbern
J. H. Wulbern

2-14-34

CONTROL PLOTTED BY

M. L. Smith
M. L. Smith

2-14-34

CONTROL CHECKED BY

E. S. Ethridge
E. S. Ethridge

2-14-34

CONTROL PLOTTED ON PHOTOS BY

F. H. McBeth
F. H. McBeth

CONTROL CHECKED ON PHOTOS BY

J. F. Richardson
J. F. Richardson

TOPOGRAPHY TRANSFERRED BY

P. W. Hund
P. W. Hund

4-3-34

TOPOGRAPHY CHECKED BY

E. H. Kirsch
E. H. Kirsch

SMOOTH RADIAL LINE PLOT BY

E. S. Ethridge
E. S. Ethridge

3-13-34 (Sheet G)

RADIAL PLOT CHECKED BY

E. H. Kirsch
E. H. Kirsch

SCALE PLOT BY

J. H. Wulbern
J. H. Wulbern

DETAIL INKED BY

P. W. Hund
P. W. Hund

4-3-34 to 4-6-34

AREA OF DETAIL INKED: .7 Square Statute Miles (Land Area)

AREA OF DETAIL INKED: .1 Square Statute Miles (Shoals in water area)

LENGTH OF SHORELINE: - - - - (More than 200 meters from opposite shore)

LENGTH OF COASTLINE: 2.6 Statute Miles.

LENGTH OF STREAMS: 2.6 Statute Miles. (Rivers and sloughs less than 200m wide)

GENERAL INFORMATION

The only aids used in the compilation of this sheet were: notes from field inspection reports, information given by Lt. B. H. Rigg and Lt. M. O. Witherbee in questionable areas.

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

This sheet was compiled from the photographs taken by the U. S. Army Air Corps' single lens camera, Photograph numbers M-32 823B-8 taken November 10, 1933 at 11:55 A.M. - one hour and 26 minutes before high tide and M-65 - 823B-8 taken November 17, 1933 at 11:15 A.M. two hours and 24 minutes before low tide.

CONTROL

Sources:

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

Triangulation: G. D. Cowie and R. L. Shoppe - 1933
M. O. Witherbee - 1934.

Topographic Sheet "0" (Whatman) Reg. No. 4856 .
M. O. Witherbee - 1934.

The field parties geographic positions were used; these are on the N. A. 1927 datum.

The high water line on the coastal area was taken from the topographic sheet "0" Reg. No. 4856 .

Errors:

The following error was discovered in the checking position of the dock at the end of the road leading to Charleston Lighthouse.

The positions were as follows:

AIR PHOTO CELLULOID SHEET	TOPO SHEET "0" (Whatman) Reg. No. 4856.
Lat. $32^{\circ} 41' 1067.7$ (780.6)	Lat. $32^{\circ} 41' 1073.1$ (775.1)
Long. $79^{\circ} 53' 610.5$ (952.6)	Long. $79^{\circ} 53' 620.2$ (942.9)

A round of four sextant angles was taken at this dock. These angles were plotted on tracing paper and the fix plotted on the celluloid sheet where it checked the position in question. In like manner, the fix was plotted on topo sheet "0" Reg. No. 4856 , where it also checked the position of the dock. It therefore, appears that the discrepancy is due to projection distortion on topo sheet "0" Reg. No. which is a Whatman sheet.

There were no other errors found in this sheet.

Discrepancies:

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

COMPILATION

Method:

The usual radial line method of plotting was used in the compilation of this sheet.

Adjustments 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 adjustments.

Remarks on Adjustment:

No difficulty was experienced in making the necessary adjustments for smooth radial plot.

Interpretation:

Only the usual graphic symbols were used as approved by the Board of Surveys and Maps (1932) and no difficulty was encountered in interpreting the photographs detail.

The sand dunes on the coast may vary somewhat in size and shape in existing conditions but the dune area was clearly discernable and has been so shown.

The area between low and high water line in the marsh area is shown as sandy mud.

The area partially enclosed by a dashed line, outside the low water line is shoal water. The dashed line was carried to the limits of the photographs and while the area is shown as accurately as could be interpreted there may be some departure in actual conditions.

The low water line was determined from a photograph taken two hours and 24 minutes before low tide and since the detail was clear there should be little departure from this area as shown.

Information from other sources:

The highwater line was run in by the topographic party on topo sheet "O" (Whatman) Reg. No. 4856.

Conflicting Names:

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

COMPARISON WITH OTHER SURVEYS

Satisfactory junctions were made with the following sheets:

North - Sheet No. 28, Reg. No. 5180
 East - None
 South - None
 West - Sheet No. 32, Reg. No. 5184

Landmarks:

The list of landmarks of this area was submitted by Lt. M. O. Witherbee with Whatmans Topo Sheet "O" Reg. No. 7856.

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 purposes and of 4 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.

Assisted by:

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

Submitted by:

P. W. Hund
 P. W. Hund.

Survey No. 13103

Date. March 13, 1935 ^{GP}

Chart No. 1239

Diagram No. _____

Under investigation. Q

(M-136)

REVIEW OF PHOTO TOPOGRAPHIC SURVEY NO.

Title (Par. 56) Between Folly Beach and Charleston Lighthouse.

Chief of Party E. H. Kirsch Compiled by P. W. Hund

Project F.P.-13-S.C., 1933-35

Air Photo Compilation Party No. 21. 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. *See below.*
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.

Comparison of this compilation with T 2488 (1940) shows change in the coast line. The compilation is complete and adequate to supersede T 2488 (1900)
B. G. Jones

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.)
None shown on this compilation Submitted with A.C.S. Sheets.
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. Sheets.
14. The geographic datum of the sheet is N. A. 1927 datum and the reference station is correctly noted. (Par. 34.)
The position of the grid origin is from field computations and is the official adjusted position.
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:

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

Examined and approved:

K.T. Adams
Chief, Section of Field Records

L.O. Solbut
Chief, Division of Charts

F.L. Ordun
Chief, Section of Field Work
G. W. Rude
Chief, Division of
Hydrography and Topography.