

5172

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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 20
Reg. No. 5172

LOCALITY

CHARLESTON HARBOR AND VICINITY

COOPER RIVER - YELLOW HOUSE CREEK

19.34

CHIEF OF PARTY

E. H. Kirsch

U. S. GOVERNMENT PRINTING OFFICE: 1929

5172

871K

PHOTOS NO.	DATE	TIME
M-45 - 823A-8 to M-49 - 823A-8	November 17, 1933	10:45AM 2h 54m before low tide.
M-150- 823A-8 to M-156- 823A-8	December 21, 1933	1:05 PM 1h 23m after high tide.

PROJECTION BY

L. C. Ripley
L. C. Ripley

2-9-34

PROJECTION CHECKED BY

E. H. K.
E. H. Kirsch

2-9-34

CONTROL PLOTTED BY

M. L. Smith
M. L. Smith

2-10-34

CONTROL CHECKED BY

E. H. K.
E. H. Kirsch

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

M. L. Smith
M. L. Smith

4-5-34

TOPOGRAPHY CHECKED BY

E. H. K.
E. H. Kirsch

4-5-34

SMOOTH RADIAL LINE PLOT BY

M. D. Crook
M. D. Crook

3-13-34 (Sheet "B")

RADIAL PLOT CHECKED BY

E. H. K.
E. H. Kirsch

SCALE PLOT BY

J. H. Wulbern
J. H. Wulbern

DETAIL BY

M. L. Smith
M. L. Smith

3-21-34 to 4-11-34

DETAIL CHECKED BY

E. J. Anderson
E. J. Anderson

4-11-34

AREA OF DETAIL INKED: 10.0 Square Statute Miles (Land Area)

LENGTH OF SHORELINE: 13.2 Statute Miles (More than 200m from nearest opposite shore).

LENGTH OF STREAMS: 11.5 Statute Miles (Rivers and sloughs less than 200m wide)

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

TOPOGRAPHIC TITLE SHEET

REG. NO. 5172

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. 20

REGISTER NO. 5172
5172

State South Carolina

General locality Charleston Harbor and Vicinity

Locality Cooper River - Yellow House Creek.

Scale 1:10,000 Photographs - November 17, 1933
Date of ~~Survey~~ December 21, 1933

Date of ~~Survey~~ December 21, 1933, 19

Compilation - March 21, 1934 to April 11, 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 M. L. Smith

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

Contour, Approximate contour, Form line interval feet

Instructions dated November 10, 1933, 1933

Remarks: _____

GENERAL INFORMATION

Statistics:

This sheet is one of sixteen 1:10,000 scale Atlas sheets, over Charleston Harbor and Vicinity.

The land area covered by this sheet is approximately 10.0 square statute miles. There are 13.2 statute miles of shoreline as measured along streams the width of which is more than 200 meters. There are 11.5 statute miles of rivers, streams, and sloughs less than 200 meters wide. There is no outside coast on this sheet.

General Reports:

This area is covered by Lt. B. H. Riggs' General Field Inspection report 1933-34. The area covered by this sheet consists of low marsh lands, wooded areas, and a few cultivated fields. Part of Beresford Creek, which joins the Cooper and Wando Rivers, is shown in the Southeast corner of the sheet.

For Lt. Riggs' Report see report for T-5152.

Photographs:

The photographs used in the compilation of this sheet were taken with the U.S. Army Air Corps' Single Lens Camera. Two flights were used, Photographs M-45 - 823A-8 to M-49 - 823A-8 covering the East side of the sheet, and Photographs M-150 - 823A-8 to M-156 - 823A-8 covering the West side. The first mentioned series was taken on November 17, 1933 at 10:45 A.M., two hours and 54 minutes before low tide, the latter on December 21, 1933, at 1:05 P.M., one hour and 23 minutes after high tide. The photographs M-150 - 823A-8 to M-156 - 823A-8 were much clearer than the others, and having been taken at the higher stage of the tide, were used for transferring shoreline in all cases where the same shore line appeared on both flight strips.

CONTROL

Sources:

All triangulation by R.F.A. Studds, 1928, with the following exceptions:

U.S.E.D. GOOSE by C. D. Cowie and R. L. Shoppe, 1933.

GOOSE CREEK by C. D. Meaney 1932 and by G. D. Cowie and R. L. Shoppe in 1933.

Whatman topographic Sheet "D" Reg. No. ^{H-5448}, also used as Boat sheet No. 3, Reg. No. ^{H-5448}, Lt. B. H. Rigg, 1934.

The field partys' geographic positions were used. All control has been reduced to 1927 N. A. datum.

* Beacon No 3. was cut in by plane table on boat sheet H-5448.
R.C.M.

Errors:

No errors were found in the plotting of control except YELLOW which is incorrectly spotted on the photographs.

Discrepancies:

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

COMPILATIONMethod:

The usual radial line method of plotting was used in the compilation of this sheet. The radial plot being made on a large overlay sheet "B" and the points transferred to the Atlas sheet.

Adjustments of Plot:

The photographs were comparatively free from tilt and scale fluctuations, so that no unusual adjustments were necessary in making the radial plot. The station YELLOW was poorly located on the photographs, due to its being on marshy ground with nothing definite by which to locate it, but there was sufficient control to make the plot without depending on this station.

Interpretation:

Only the usual graphic symbols as shown in the topographic manual, Special Publication No. 114, were used.

The photographs of Beresford Creeks in the Southeast corner of the sheet were badly out of scale and very indistinct. A great deal of care was used in shifting between points, but it is felt that the accuracy in this area is not so good as on the remainder of the sheet. The low waterline was taken from the photographs, and is subject to some error. The area between high and low waterlines has been lightly sanded to represent a sandy mud.

The low waterline along the Cooper River was taken from Boat Sheet No. 3, Reg. No. H-5448, Lt. B. H. Rigg, 1934. Slack Reach and Back Slack Reach in the Northern part of the sheet have been sanded in, leaving the channels which showed up on the photographs clear. The limit of these channels was rather indefinite, but no soundings were taken there and the area was represented as it appeared on the photographs. This sanded area also represents a sandy mud, covered at high water.

* See opp page

All beacons except Beacon No. 3 were spotted on the photographs and radial plotted. Their positions checked with the positions on Whatman Topographic Sheet "D", Reg. No. H-5448, Lt. B. H. Rigg, 1934. Beacon No. 3 was taken directly from the topographic

* One new name "Clements Ferry Road" has been submitted for approval.

sheet, It was thought best to show the Ordnance Depot dock in full, instead of stopping it at the limit of the sheet.

Improved earth roads have been shown by a double dashed line, poor roads and trails by a single dashed line. There are no paved roads on the sheet. The limits of cultivated fields have also been shown by a single dashed line, but it is irregular and much lighter than the roads.

The shoreline of Yellow House Creek at $32^{\circ} 55'$ has been sketched in on Whatman Topographic Sheet "D" Reg. No. *H-5448*. It was not rodded, and is not intended to be used as Air Photo control.

Existing charts show a marsh island just off the coast at $32^{\circ} 54' - 79^{\circ} 57'$, with the shore line of the mainland practically a straight line. The photographs show the shore line curved more in this area, and the only island shown is a small one with its outer edge in line with the shore line of the river. The outer edge of the marsh was evidently cut off as an island at one time, but has been build up in some way so that no island shows at the present time. Existing charts also show another dock northeast of the Ordnance Depot dock, but this also has been destroyed.

It was not possible to carry the detail to the northern border of the sheet, as the last picture of each flight strip has its center just above Lat. $32^{\circ} 56'$ and no intersections could be obtained. The points north of $32^{\circ} 56'$, with a few exceptions, were established by only two cuts, therefore the detail may not be as accurate as on the remainder of the sheet.

Information from other Sources:

Field inspection by Lt. B. H. Rigg, 1933 - 34.

Whatman Topographic Sheet "D" Reg. No. later used as a Boat Sheet No. 3, Reg. No. *H-5448*. Field Inspection by the compiler.

Conflicting Names:

The field party reported that Beresford Creek is locally called Nowell Creek, probably due to the fact that a Mr. Nowell once owned a great deal of land in that locality. The name Beresford Creek has been used on the Air Photo Sheets. * See app. page

Comparison with other Surveys:

Satisfactory junctions were made with the following sheets:

North - Sheet No. 9, Reg. No. 5161
 East - Sheet No. 19, Reg. No. 5171
 South - Sheet No. 23, Reg. No. 5175
 West - Sheet No. 21, Reg. No. 5173

sheet, It was thought best to show the Ordnance Depot dock in full, instead of stopping it at the limit of the sheet.

Improved earth roads have been shown by a double dashed line, poor roads and trails by a single dashed line. There are no paved roads on the sheet. The limits of cultivated fields have also been shown by a single dashed line, but it is irregular and much lighter than the roads.

The shoreline of Yellow House Creek at $32^{\circ} 55'$ has been sketched in on Whatman Topographic Sheet "D" Reg. No. *H-5448*. It was not rodded, and is not intended to be used as Air Photo control.

Existing charts show a marsh inland just off the coast at $32^{\circ} 54' - 79^{\circ} 57'$, with the shore line of the mainland practically a straight line. The photographs show the shore line curved more in this area, and the only island shown is a small one with its outer edge in line with the shore line of the river. The outer edge of the marsh was

A line of piling that is not shown on Chart No. 470 appears on the opposite side of the Cooper River from the mouth of Goose Creek on photos covering this sheet. some
to show

border of the sheet, as the last picture of each flight strip has its center just above Lat. $32^{\circ} 56'$ and no intersections could be obtained. The points north of $32^{\circ} 56'$, with a few exceptions, were established by only two cuts, therefore the detail may not be as accurate as on the remainder of the sheet.

Information from other Sources:

Field inspection by Lt. B. H. Rigg, 1933 - 34.

Whatman Topographic Sheet "D" Reg. No. later used as a Boat Sheet No. 3, Reg. No. *H-5448*. Field Inspection by the compiler.

Conflicting Names:

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South - Sheet No. 23, Reg. No. 5175
West - Sheet No. 21, Reg. No. 5173

Landmarks:

A list of landmarks for the area is being submitted by Lt. B. H. Rigg with Whatman Topographic sheet "D" Reg. No. also used as Boat Sheet No. 3, Reg. No. .

RECOMMENDATIONS 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. *

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

Assisted by:

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

Submitted by:

M. L. Smith
M. L. Smith.

* The value of 3 to 6 meters given above is a little high. 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

Comparison with other surveys Comparison with the last previous planetary surveys T2162 (1894) and T4434 (1928) shows little change since the 1928 survey. Changes have been larger in the small area covered by T2162. The compilation is detailed and adequate to compare with of the older surveys.

B.G. Jones.

Title (Par. 56) Cooper River - Yellow House Creek

Chief of Party E. H. Kirsch

Compiled by M. L. Smith

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 opposite page* ✓
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. Sheets. *None*
13. A list of landmarks for charts was furnished on Form 567 and scal-
ing of positions checked. (Par. 16d, e, 60.)
Submitted with A.C.S. 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:

20. Examined and approved:

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

21. Remarks after review in office:

Reviewed in office by:

Examined and approved:

K. T. Adams
Asst Chief, Section of Field Records

L. O. Dolbit
Chief, Division of Charts

F. S. Borden
Chief, Section of Field Work

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

Survey No. T-5172

Chart No. 1239,470,680

Diagram No. 1239-2

Diagram No. 1239-2
Harlow Bacon

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

In 1997

Applied, ~~in fact~~, to drawing of chart #470.

Feb. 11, 1935. G.H.S.

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

" " " 680 Feb. 5, 1942 K.R.