

5154

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

DESCRIPTIVE REPORT

Air
Photo

Topographic } Field No. 2,
Hydrographic } Sheet No. Reg. No. 5154
5154

State SOUTH CAROLINA

LOCALITY

S.W. of CHARLESTON HARBOR

WADMALAW ISLAND

1934

CHIEF OF PARTY

E. H. KIRSCH

U. S. GOVERNMENT PRINTING OFFICE: 1934

5154

Applied to Chart 792 October 24, 1936 H.E.M.
" " " 1239 April, 1937 J.M.W.

PHOTOS NO.
566 through 579
1238 through 1254

DATE
June 22, 1933
October 12, 1933

TIME
2:45 P.M.
10:40 A.M.

PROJECTION BY

J. H. Wulbern

12-20-33

PROJECTION CHECKED BY

E. H. Kirsch
E. H. Kirsch

12-20-33

CONTROL PLOTTED BY

M. D. Crook
M. D. Crook

12-28-33

CONTROL CHECKED BY

L. C. Lande
L. C. Lande

12-29-33

CONTROL PLOTTED ON PHOTOS BY

J. F. Richardson
J. F. Richardson

12-23-33

CONTROL CHECKED ON PHOTOS BY

F. H. McBeth
F. H. McBeth

12-23-33

SMOOTH RADIAL PLOT BY

M. D. Crook
M. D. Crook

1-22-34

SMOOTH RADIAL PLOT CHECKED BY

E. H. Kirsch
E. H. Kirsch

SCALE PLOT BY

J. H. Wulbern

12-29-33

DETAIL INKED BY

M. R. Donaldson
M. R. Donaldson

3-21-34

AREA OF DETAIL INKED: 66.42 Square statute miles (land area)

LENGTH OF COASTLINE: 9.54 Statute miles.

LENGTH OF SHORELINE: 24.26 Statute miles (200m or more from opposite shore)

LENGTH OF STREAMS: 90.16 Statute miles (Rivers and sloughs less than 200 m wide)

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 5154

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. 2

REGISTER NO. 5154 **5154**

State South Carolina

General locality S. W. of Charleston Harbor

Locality Wadmalaw Island

Scale 1:20,000 = 21,790 Photographs - June 22, 1933
935 Date of survey October 12, 1933 19

Compilation - March 21, 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. R. Donaldson

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

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

Instructions dated November 10, 1933., 19

Remarks: This sheet will be printed on a scale of 1:20,000

GENERAL DESCRIPTION OF TOPOGRAPHY

The following notes are included as a supplement to the general field inspection report, and were made by the compilers from a personal field inspection and general familiarity with the area around Bohicket Creek.

The area covered by this sheet is typical of the coastal region near Charleston. The land is low with practically no relief and broken by numerous tidal creeks.

The borders of the creeks, between the low water and extreme high water lines, are mud, covered with salt marsh grass having a distinct berm or edge.

This berm is in general the low water line, but was inked in as the high water line, since at high water the marsh is flooded but the top of the grass is still visible. The extreme high water line showed up rather well on the photographs and is shown by a light ink line. Numerous small patches of solid ground occur in the marshy areas, covered usually with grass, a few trees or myrtle bushes. This light ink line around such places helped to make them stand out from the marsh.

In the lower Kiawah River there is a wide space between Kiawah and Johns Islands, marshy in general but having large areas of mud flats and oyster shell banks, without marsh, which are exposed at low water.

Since the photos of this area were taken at approximately low tide, the general outline of the channels could be seen and are shown as such by a light broken line.

Seabrook's Island and Kiawah Island, on the coast, are sparsely settled and very densely wooded, the forests being predominately pine and palmetto with a good many oaks.

Due to the density of forest, the few roads or trails did not show on photos and could not be inked in.

The high water line on the coast was marked on the photos from field inspection made along the beach and the resulting estimate is believed to be correct. Low sand dunes, scrub bushes and grass lie above the high water line.

The other portions of Johns and Wadmalaw Islands, where not cultivated are generally covered by thick pine woods, with a scattering of oaks, the oaks especially along the edges of creeks.

The relief is "approximately" not over 5 meters above mean sea level.

GENERAL INFORMATION

Area of detail inked: 66.42 Sq. Statute Miles (land area)
 Length of Coastline: 9.54 Statute miles.
 Length of Shoreline: 24.26 Statute miles (200 meters or more wide)
 Length of Streams: 90.16 Statute Miles (Rivers and sloughs less than 200 meters wide).

General Report:

The general report is given under "General Description of Topography"

A separate field inspection report covering all sheets in general will be given by Lt. B. H. Rigg with sheet No. 1, Reg. No. 5153 ✓

Photographs:

All photos were taken by the U. S. Army Air Corps' 5-lens camera A.C. 32-1-B.

The compilation was made from portions of two flights. Photos 566 through 579 taken June 22, 1933 at 2:45 P.M. which was 1 hour 17 minutes after low tide. The line of flight being parallel to and approximately 4500 meters from the coastline. The "A" wings, showing the coast line and creeks just back of ^{the} coast, were badly tilted and not very clear in general, causing a great deal of adjustment between radial points to compile this region. Only one photo No. 577 was remarkably free of tilt; but unfortunately is not a clear print.

Photos 1238 through 1254 taken October 12, 1933 at 10:40 A.M. which was 2 hours 38 minutes after low tide, were used to compile the Northern portion. The line of flight being parallel to and approximately 6400 meters from the other flight, the region midway between flights was far out on wing prints and badly tilted, causing the same difficulty as along the coast line. The 1200 photos, however, were much clearer prints than the 500 photos.

CONTROL

Triangulation by G. D. Cowie and R. L. Shoppe 1933 and traverse from stations JOHNS to DAVIS by Lt. B. H. Rigg 1933, form the only control used in compiling this sheet. All control reduced to 1927 N.A. datum. The traverse stations are shown on the celluloid sheet by blue inked triangles.

LIST OF TRAVERSE STATIONS

| | | |
|-----------|----------------------|---------------------|
| T.P. - 6 | Lat. 32° 42' 232.5 ; | Long. 80° 06' 830.3 |
| T.P. - 7 | 32 42 72.7 ; | 80 07 651.3 |
| T.P. - 8 | 32 41 1057.2; | 80 08 502.1 |
| T.P. - 10 | 32 40 1538.6; | 80 09 1223.4 |

These traverse stations were not marked and will not show on the printed compilation

Bgg.

x: These are temporary stations located by the compilation for control of Hydrography. They are shown with green circles on the Hydrographic sheets and will remain on the celluloid compilation as a matter of record. They will not appear on the printed copies of the compilation.

B.G. Jones

| | | | | |
|-----------|--------------|---------|---------------|--------|
| T.P. - 12 | Lat. 32° 40' | 468.9 ; | Long. 80° 09' | 1271.6 |
| T.P. - 13 | 32 39 | 1732.4; | 80 10 | 369.1 |
| T.P. - 16 | 32 40 | 245.5 ; | 80 11 | 313.7 |
| T.P. - 19 | 32 40 | 1303.9; | 80 11 | 825.0 |
| T.P. - 22 | 32 41 | 467.2 | 80 12 | 476.5 |

Errors:

No errors of importance were discovered in the projection or radial plot. One radial point was found in error and was replotted. Station VAN was discovered to be incorrectly spotted on photographs, and could not be used for control. Its radial line falls on, on photos Nos. 576, 579, 581 only.

Discrepancies:

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

Compilation:

The standard radial line method was used in making the plot.

Adjustment of Plot:

Much difficulty was encountered in compiling portions of the sheet, as discussed under "Photographs". Photographs in general were tilted and had scale fluctuations and the flight along the coast was unfortunately so far from the coast line and pictures not very clear. The other flight, covering the northern portion of the sheet was likewise so far from the center line of the first flight, and also taken about four months later.

Much of the shoreline of streams had been compiled before the hydrographic signals were established on such streams. After being given these signals and spotting them on photos, the compiler radially plotted them, as shown by the inked circles. These additional points were a valuable check on the shoreline of the streams and various minor corrections were then found necessary and accordingly made. * See opposite page.

The portion of DEVEAUX BANK⁷ at the junction with sheet 5155 was taken from that sheet. It was established on sheet 5155 by tangents, no control being available on the bank.

Throughout this compilation, the compiler found that almost without exception, the skew photos were truer to scale and less tilted than the straight photos, and the former were used as much as possible in preference to the latter.

Interpretation:

Only the usual graphic symbols were used as approved by

the board of Surveys and Maps (1932) and no great difficulty was experienced in interpreting the photographic detail.

Cultivated fields in this area usually have many drainage ditches through them and wherever possible to distinguish the ditches on the photos they were inked in as light solid lines to indicate the cultivated fields. Where no ditches could be seen, such areas were surrounded by a light broken line.

Boundaries of shoal water areas were shown by a light broken line. These are shown solely from their appearance on the photographs and may be expected to depart from actual conditions.

Information from other Sources:

No information from other sources was used in the compilation of this sheet, except the name of a small creek near the Boy Scout Camp. This creek was unnamed on the U.S.C. & G.S. Chart and the name of Fiskling Creek was furnished by Mr. C. D. Schirmer, the local Charleston Boy Scout executive. OK
H.B.

Names of roads were taken from map of Sanitary and Drainage Commission of Charleston County, and from a map issued by the Stono River Bridge Co. Lat. 40°-37'
Long. 80°-10'

Conflicting Names:

The creek shown on U.S.C. & G.S. Chart 1239 as Pioneer Creek is misnamed. The local residents, as well as the Sanitary and Drainage Commission Map of Charleston County, and the U. S. Geological Survey Map give the correct name as PRIVATEER CREEK. 40°-35' Lat. Long. 80°-11'
OK/H.B.

COMPARISON WITH OTHER SURVEYS

Comparison with U.S.C. & G.S. Chart 1239 shows the following:

The inlet or slough opening from the mouth of N. Edisto River into Captain Sams Creek no longer exists, as shown by photographs and field inspection.

The Kiawah River Inlet, on the Coast, appears to have closed up considerably, by the building up of the beach, to the East, since the chart was made.

The Bass Creek Inlet, on the Coast, shown on chart as a single opening, has formed a second opening East of the first one.

Roads and trails on Seabrook and Kiawah Islands did not show up on the photos due to the dense forests.

Junctions:

No difficulty was experienced in making junctions with the following sheets:

North - 5165 and 5166 (1:10,000)
 South - None
 East - 5153 (1:20,000)
 West - 5155 (1:20,000)

Landmarks:

A list of landmarks for this area will be furnished by Lt. B. H. Rigg on aluminum control sheets M and K, Reg. Nos. ,
 T6081 T6058

RECOMMENDATIONS FOR FURTHER SURVEYS

This compilation is believed to have a probable error of 3 meters in well defined detail of importance for charting, and not more than 6 meters for other detail.

To the best of my knowledge this sheet is complete in all detail of importance for charting and no additional surveys are required.

Assisted by:

E. H. Kirsch

E. H. Kirsch,
 Chief of Party.

Submitted by:

M. R. Donaldson

M. R. Donaldson.

REVIEW OF PHOTO TOPOGRAPHIC SURVEY NO.

Title (Par. 56) Wadmaw Island

Chief of Party E. H. Kirsch

Compiled by M. R. Donaldson

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 other 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.) ✓
- ✓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. Sheets *and filed under T6081*
- ✓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. Sheets *T6081 and T6058*
- ✓14. The geographic datum of the sheet is *correctly stated* N. A. 1927 *adjusted* 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.) *Examined and approved. H.B.*
- ✓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 next page

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

Examined and approved:
Chas. K. Meen
acting Chief, Section of Field Records
L. O. Pollock
Chief, Division of Charts

J. S. Borden
Chief, Section of Field Work
G. H. Hulse
Chief, Division of
Hydrography and Topography.

REVIEW OF AIR PHOTO COMPILATION 5154 (1934)

Names: The name Privateer Creek, lat. $40^{\circ}-36'$ ³⁵, long. $80^{\circ}-11'$ is shown as submitted by the compiler for reasons stated on page 4 of the descriptive report pending Mr. Bacon's decision on the list of new and conflicting names submitted to him. *Names approved Dec 26, 1934 H.B.*

Comparison with other surveys: Plane table control survey T-6081 covers a small area along the eastern limits of this compilation. The small amount of detail shown agrees with the compilation.

There is no conflict in information between this compilation and the Hydrographic survey H-5470.

Comparison of this compilation with the last previous plane table survey T-491 (1857) shows the general features to be about the same but there have been numerous small changes in detail of the H. W. line. The method described on page 1 of the preceding descriptive report showing the berm at the edge of the marsh as H. W. line was also followed on the old survey. This is the only distinctive line except for the line of extreme H. W. around the higher wooded areas and back of the marshes.

Descriptions on Form 524 of marked topographic stations shown on this compilation are filed under sheet numbers as follows:

| <u>Station</u> | <u>Filed under Topographic Sheet No.</u> |
|----------------|--|
| Eve (d) | T-6081 |

B. G. Jones

B. G. Jones.

Survey No. T 5154
H 5467, 5470 + 5471
 Chart No. 1239 + 434

Date. Dec. 26, 1934

GEOGRAPHIC NAMES
 SOUTH CAROLINA

Names underlined in red approved Dec. 26, 1934 Diagram No. _____

* Approved by the Division of Geographic Names, Department of Interior.

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

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

Harlow Bacon

All other names on the survey approved. They should be listed on this sheet for record

| Status | Name on Survey | Name on Chart | New Names in local use | Names assigned by Field | Location |
|--------|--------------------------------------|--|-------------------------|-------------------------|----------------------|
| | <u>Fickling Creek</u> | | Fickling Cr. | | 32° 37.4' 80° 10' |
| | <u>Privateer Creek</u> | Pioneer Creek, 1239 changed to conform to local usage | | Privateer Creek | 32° 35' 80° 11' |
| | <u>Andell Creek</u> | | Andell Cr. | | 32° 37' 80° 09' |
| | <u>Kiawah River</u> Name to be added | | | | 32° 35' 80° 08' |
| | Add (1/11/37 HBE) | | USGS Quad "Wadmalaw I." | | |
| | <u>Long Island</u> | ch. 1239 | ✓ | | |
| | <u>Capt. Sams Cr.</u> | ch. 1239 | ✓ | | |
| | <u>Adams Cr.</u> | ch. 1239 | ✓ | H-5470 | |
| | <u>Leadenwah Cr.</u> | ch. 1239 | ✓ | H-5470 | |
| | <u>Wadmalaw I.</u> | ch. 1239 app'd | ✓ | | |
| | <u>Johns I.</u> | ch. 1239 app'd | ✓ | | |
| | <u>Church Cr.</u> | ch. 1239 app'd | ✓ | | |
| | <u>Bohicket Cr.</u> | ch. 1239 app'd | ✓ | | |
| | Fickling Cr. see above | GN stand 1239 | | | |
| | <u>Mullett Hall</u> | ch. 1239 | ✓ | Rand McNally | P.O.M. |
| | <u>Kiawah I.</u> | ch. 1239 app'd | ✓ | | |
| | <u>Seabrook I.</u> | ch. 1239 app'd | ✓ | | |
| | Jekylls Pt. | ch. 1239 | ✓ | | |
| | Rocky Pt. | ch. 1239 | ✓ | | |
| | Old Grove | ch. 1239 (conc word) | Oakgrove | | |
| | Andell Pt. | | | | Andell Gap (BAM.) |
| | <u>Rockville</u> | ch. 1239 | ✓ | Rand McNally | |