

5391

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Form 504
Rev. Dec. 1933
DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY
R. S. PATTON, DIRECTOR

DESCRIPTIVE REPORT

Field 72

Air
Photo

Topographic

~~Hydrographic~~

Sheet No. Reg. 5391

State South Carolina

LOCALITY

~~BULL ISLAND AND VICINITY~~

~~BEAUFORT CREEK TO SEVEN BAY~~

LOWER BULL BAY

BULL ISLAND

193 4-5

CHIEF OF PARTY

E. H. Kirsch

U. S. GOVERNMENT PRINTING OFFICE: 1934

1391

Ceppleider chart 837 Nov. 20, 1935 H.C.
" " " 1239 April 1937 F.M.U.
" " " 1238 Oct. 18, 1937 G.H.S.

PHOTO NOS.

65 to 72

649 to 654

499 to 511

DATE

Aug. 2, 1934

Aug. 25, 1934

Aug. 13, 1934

TIME

8:40 A.M.

4:35 P.M.

2:35 P.M.

$$\text{Scale } F. = \frac{10,000}{10,526.}$$

PROJECTION BY

L. C. Ripley
L. C. Ripley

12-29-34

PROJECTION CHECKED BY

E. H. Kirsch
E. H. Kirsch

12-20-34

CONTROL PLOTTED BY

E. J. Anderson
E. J. Anderson

12-28-34

CONTROL CHECKED BY

M. D. Crook
M. D. Crook

12-28-34

CONTROL PLOTTED ON PHOTOS BY

J. F. Richardson
J. F. Richardson

CONTROL CHECKED ON PHOTOS BY

W. W. King
W. W. King

SMOOTH RADIAL PLOT BY

E. J. Anderson
E. J. Anderson

1-5-35

RADIAL PLOT CHECKED BY

R. G. Hickson
R. G. Hickson

1-7-35

SCALE PLOT BY

L. C. Lande
L. C. Lande

TOPOGRAPHY TRANSFERRED BY

R. G. Hickson
R. G. Hickson

2-15-35

TOPOGRAPHY CHECKED BY

H. W. Langley
H. W. Langley

3-6-35

DETAIL INKED BY

R. G. Hickson
R. G. Hickson

2-21-35

AREA OF DETAIL INKED: 19.5 Sq. St. Miles.

LENGTH OF COASTLINE: 11 Statute miles.

LENGTH OF SHORELINE: 7 St. Miles (more than 200 meters wide)

LENGTH OF SHORELINE: 46 St. Miles (less than 200 meters wide)

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. 72

REGISTER NO. 5391

State South Carolina

General locality ~~Bull Island and Vicinity~~ Lower Bull Bay

Locality ~~Belvedere Creek to Sewee Bay~~ Bull Island

Scale 1/10,000 - Photographs - 8-2-34, 8-13-34,
1-10-36 Date of survey 8-25-34, 19

Compilation - 2-21-35

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

GENERAL INFORMATION

Statistics:

The land area covered by this sheet is 19.5 square statute miles. There are 11 statute miles of coastline, including the shoreline of Bull Bay. There are 7 statute miles of shoreline as measured along streams over 200 meters in width from the nearest opposite shore, including the shoreline of Sewee Bay; and 46 statute miles of streams less than 200 meters in width.

General Report:

No general report is available for this area. About half of the area covered by this sheet is salt marsh, broken by many tidal creeks and streams. The rest of the area is high ground. The high ground on Bull Island is thickly wooded with live oaks, scrub oaks and pines, palmettos and underbrush, with very little cleared ground. The vegetation of the high ground northwest of the newly dredged intracoastal waterway consists mostly of pines with some scattered oaks nearby the coast. There are a few small cleared fields under cultivation in this area.

Photographs:

This sheet was compiled from parts of three flights of photographs taken by the Aero Service Corporation of Philadelphia with a standard U. S. Army Air Corps type 5-lens aerial camera No. T3A H U I - 33. Photos No. 499 to 511, running southwest down the center of Bull Island,, were taken on August 13, 1934, at 2:35 P.M., 57 minutes before low tide. Photos No. 649 to 654 running north east above and parallel with the intracoastal waterway were taken on August 25, 1934, at 4:35 P.M., 2 hours and 43 minutes after low tide. Photos No. 65 to 72, running from the south west edge of the sheet above and approximately parallel with the inland water route to the middle of the sheet, were taken on August 2, 1934 at 8:40 A.M., 1 hour and 40 minutes after low tide.

CONTROL

Sources:

All control used in compiling this sheet was established or recovered by Lt. B. H. Rigg, 1934. It has not been adjusted to N. A. 1927 datum. G. C. Sheets No. "EE" Reg. No. T-6291a, "FF" Reg. No. T-6291b

Errors:

No errors were found in the plotting of control.

Discrepancies:

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

COMPILATION

Method:

The usual radial line method of plotting was used as described in the U.S.C. & G. S. "Notes on the Compilation of Planimetric Line Maps from Aerial photographs".

Adjustment of Plot:

No unusual adjustments of the plot were necessary.

Interpretation:

The section of the recently dredged Intracoastal waterway that runs through Sewee Bay was very indefinite on the photographs.

The edges of the canal at dead low water were rodged in on Graphic Control sheets "FF" Reg. No. *T-629/b*, and transferred to this compilation.

Sewee Bay and Hickory Bay are very shallow and, except for a few channels, bare at low water. These channels have been shown with dotted lines where possible. The sand flats have been dotted in. The coastline along the out side sand beach was transferred from Graphic Control Sheet "EE", Reg. No. *T-629/a*, B. H. Rigg.

The only symbols used were the graphic symbols shown in the Coast and Geodetic Survey Topographic Manual.

There are no paved roads on this sheet. Poor motor roads are shown with a double dashed line, foot paths and trails with a single dashed line.

Information from other sources:

As stated above the Intracoastal waterway through Sewee Bay and the outside coastline were transferred from Graphic Control sheets "FF" Reg. No. *T-629/b*, and "EE" Reg. No. *T-629/a*, respectively.

T The small sand island, Bird Island, in Bull Bay was transferred from G.C.S. "EE" Reg. No. *T-629/a*.

The section of the Intracoastal waterway from triangulation station Belvi northeast to the edge of the sheet was not dredged when the photographs were taken. This was also transferred from G.C.S. "FF" Reg. No. *T-629/b*.

Conflicting Names:

The following conflicting names are recorded:

There are no landmarks which have been submitted with the graphic control sheets T-62910, and T-62916. There are no landmarks in this area.

Sam
6/5/35.

Name as it appears on chart 1238	-	Correct Local Usage
WHARF CREEK		SULLER HOUSE CREEK
SEWEE CREEK		ANDERSONVILLE CREEK
VAN ROSS CREEK		VENNING CREEK

The following men are given as authority for these names:

Mr. C. M. Moore, Box 370, Charleston, S. C.
Mr. Cary Bostick, Box 370, Charleston, S. C.

Mr. Glen Kennsy, Box 370, Charleston, S. C.

These men live on Bull Island and are thoroughly familiar with the waters in this vicinity.

COMPARISON WITH OTHER SURVEYS

Junctions:

Junctions with the following sheets are satisfactory:

Sheet No. 5390 on the Northeast, No. 5392 on the Southwest.

Landmarks: *(see opposite page)*

A list of landmarks and marked topographic stations will be submitted with Graphic control sheets "EE" and "FF" Reg. Nos. 7-629/a, 7-629/b, Lt. R. H. Rigg, 1934-5.

RECOMMENDATION FOR FURTHER SURVEYS

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

To the best of my knowledge this compilation is complete in all detail of importance 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:

Transferred
R. G. Hickson.

Remarks:

Chart No. 1238 shows a dock and road leading up to it on the north-west side of Bull Island. This dock is gone and the road does not show on the photos. A new dock has been built about 600 meters south-west of the position of the old dock.

Survey No. T-5391

Date. July 5, 1935 GEOGRAPHIC NAMES

Chart No. 1238

Diagram No. 1238.

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

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

Under investigation. Q

[illegible]

Note a number of the lights shown on the graphic control surveys are designated as Beacons on this compilation. At the time of the graphic control surveys these lights had not been completed but their positions were marked by piles or by the unfinished light structures. See report T 62956, page 5. These lights are not yet in operation according to Aid Book examined this date. 2/17/36 B.G. Jones.

Review of Air Photo Compilation T-5391

1:10,000 scale

Comparison with Graphic Control Surveys

(a) T-6291a (1934), 1:10,000 scale

There are no discrepancies between T 6291a and this compilation.

(b) T-6291b (1934), 1:10,000 scale

There are no discrepancies between T 6291b and this compilation.

See opposite page
(c) All detail on T-6291a and T-6291b is shown on this compilation except non-recoverable plane table positions and the magnetic declination.

Comparison with Previous Topographic Surveys

(a) T-772 (1857), 1:10,000 scale

Only Bird Island is included within the common area. This portion of T-772 is superseded by the compilation.

(b) T-1440b (1875), 1:20,000 scale

T-1400b covers Bull Island to Sullivans Island and vicinity. The hachure on T-1400b around the high ground lines of Bull Island are not shown on the compilation. The rise of the land along these lines is very gradual. Sewee Bay is represented with more detail on the compilation. Only small changes have occurred in the shorelines of the marsh islands in Sewee Bay. The compilation is complete and adequate to supersede the section of T-1400b which it covers.

T-1400a (1875), 1:20,000 scale.

T-1400a covers Bull Bay and vicinity. The hachures on T-1400a around the high ground lines of Bull Island are not shown on the compilation as the rise of the land along these lines is very gradual. The common area between T-1400a and the compilation has undergone large and extensive changes since 1875. The most outstanding change of shoreline amounting to several hundred meters occurs on the point of Bull Island. There are large shoreline changes along the coast of Bull Bay. T-1400a is superseded by this compilation over the common area.

T-3841 (1921), 1:20,000 scale.

T-3481 covers Bull Bay and vicinity. On the point of Bull Island there are changes of culture and shoreline. The east coast of this island has eroded so that the high water line has moved inland between 50 and 75 meters. Bird Island has changed completely.

The wreck located just off the marsh island in Bull Creek is in existence at this time but is not shown on the compilation for it can not be identified on the photographs. For the same reason the piling at the south end of this island is not shown on the compilation. The existence of this piling is doubtful. The wreck is shown while the piling is not shown on H-5786 (1935). Except for the piles and the wreck, T-3841 is superseded by this compilation over the common area.

Comparison with Recent Hydrographic Surveys

H-5786 (1935) -- No discrepancies.

Comparison with the Chart

Chart No. 1238

As discussed above under the comparison with T-3841, the wreck in Bull Creek is not shown on the compilation although it is still in existence. The lights and beacons in the new intracoastal waterway are shown on this compilation although they are not yet listed in the Local Light and Buoy List for 1935.

Other changes to be made on this chart as a result of this compilation are discussed on page 3 of the descriptive report under "Remarks" and above in this review under the comparison with the graphic control and previous topographic surveys.

The projection of this compilation was tested roughly by checking overall diagonals and found to be in error. A further check proved that this error was limited to the 79° 35' meridian. This line was redrawn in its correct position about 2 meters west of its old position. No triangulation stations had been plotted from this line.

July 8, 1935.

Lionard A. McKean
July 8, 1935

REVIEW OF AIR PHOTO COMPILATION NO. 5391

Chief of Party: E. H. Kirsch

Compiled by: R.G.Hickson

Project: HT 162

Instructions dated: Nov. 10, 1933

1. The charts of this area have been examined and topographic information necessary to bring the charts up to date is shown on this compilation. (Par. 16a, b,c,d,e,g and i; 26; and 64)
- ✓ 2. Change in position, or non-existence of wharfs, lights, and other topographic detail of particular importance to navigation which affect the chart, is discussed in the descriptive report. (Par. 26; and 66 g,n)
see remarks at bottom of page 3. of the descriptive report.
- ✓ 3. Ground surveys by plane table, sextant, or theodolite have been used to supplement the photographic plot where necessary to obtain complete information, and all such surveys are discussed in the descriptive report. (Par. 65; and 66 d,e)
- ✓ 4. ~~Blue prints and maps from other sources which were transmitted by the field party contain sufficient control for their application to the charts. (Par. 28)~~ *none transmitted*
- ✓ 5. Differences between this compilation and contemporary plane table and hydrographic surveys have been examined and rectified in the field before forwarding the compilations to the office and are discussed in the descriptive report.
- ✓ 6. The control and adjustment of the photo plot are discussed in the descriptive report. Unusual or large adjustments are discussed in detail and limits of the area affected are stated. (Par. 12b; 44; and 66 c,h,i)

- ✓ 7. High water line on marshy ~~and mangrove~~ coast is clear and adequate for chart compilation. (Par. 16a, 43, and 44)

High water line on the sand beach of Bull Island and Bird Island was transferred from T-6291 b to this compilation

NOTE: Strike out paragraphs, words or phrases not applicable and modify those requiring it. Paragraph numbers refer to those in the Topographic Manual. Refer also to the pamphlet "Notes on the Compilation of Planimetric Line Maps from Five Lens Air Photographs."

- ✓ 8. 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)
- ✓ 9. Recoverable objects have been located and described on Form 524 in accordance with circular 30, 1933, circular letter of March 3, 1933, and circular 31, 1934. (Par. 29, 30, and 57)
Description cards filed under graphic control survey numbers.
- ✓ 10. ~~A list of landmarks was furnished on Form 567 and instructions in the Director's letter of July 16, 1934, Landmarks for Charts, complied with. (Par. 16d, e; and 60)~~
No landmarks on this compilation.
- ✓ 11. ~~All bridges shown on the compilation are accompanied by a note stating whether fixed or draw, clearance, and width of draw if a draw bridge. Additional information of importance to navigation is given in the descriptive report. (Par. 16c)~~
No bridges on this compilation.
- ✓ 12. Geographic names are shown on the overlay tracing. The accepted local usage of new names has been determined and they are listed in the report, together with a general statement as to source of information and a specific statement when advisable. Complete discussion of place names differing from the charts and from the U. S. G. S. Quadrangles is given in the descriptive report, together with reasons for recommendations made. (Par. 64, and 66k)
- ✓ 13. The geographic datum of the compilation is *N.A. 1927* and the reference station is correctly noted.
- ✓ 14. Junctions with adjoining compilations have been examined and are in agreement. (Par. 66j)
15. The drafting is satisfactory and particular attention has been given the following:
 - ✓ 1. Standard symbols authorized by the Board of Surveys and Maps have been used throughout except as noted in the report.
 - ✓ 2. The degrees and minutes of Latitude and Longitude are correctly marked.

- ✓3. All station points are exactly marked by fine black dots.
- ✓4. Closely spaced lines are drawn sharp and clear for printing.
- ✓5. Topographic symbols for similar features are of uniform weight.
- ✓6. All drawing has been retouched where partially rubbed off.
- ✓7. Buildings are drawn with clear straight lines and square corners where such is the case on the ground.

(Par. 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 48)

✓16. No additional surveying is recommended at this time.

✓17. Remarks:

✓18. Examined and approved;

E. H. Kirsch.
Chief of Party

19. Remarks after review in office:

Reviewed in office by: Lemard A. McLean July 8, 1935.
✓ B. J. Jones

Examined and approved:

C. K. Green
Chief, Section of Field Records

L. O. Lobnitz
Chief, Division of Charts

B. B. Borden
Chief, Section of Field Work

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