

5212

U. S. COAST & GEODETIC SURVEY  
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5212

Form 504  
Ed. June, 1928

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

State: South Carolina

DESRIPTIVE REPORT

Photo  
Topographic } Sheet No. 5212  
~~Hydrographic~~

LOCALITY

South Carolina  
Atlantic Coast

Calibogue Sound

1934

CHIEF OF PARTY

Lieut. (j. g.) S. B. Grenell

Applied to Cht. 571, July 10, 1935.

Applied to chart 839 *J. Reynolds*  
Nov. 7, 1935.

Applied to chart 440 June 27, 1936 J. H. S.

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. ....

REGISTER NO. 5212

State South Carolina

General locality Atlantic ~~South Coast of South Carolina~~

Locality Calibogue Sound

Scale 1:10,000 Date of Photographs: 12/6/33, 12/18/33  
Date of ~~Survey~~ Comp. March, 194

Vessel .....

Reviewed and recommended for approval:

Chief of party Lieut. (j. g.) S. B. Grenell

Photographs plotted by: F. B. Hickman  
~~XXXXXXXXXX~~

Inked by J. W. Griffith, Jr.

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

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

Instructions dated November 10, 1933, 19 .....

Remarks: Compilation of Aerial photographs Nos. (807) M12-119, also 126

NOTES ON COMPILATION

One copy of this form must accompany each chart from beginning to completion. The last draftsman, whose name appears on this form, is responsible for it and all personnel will endeavor to keep these forms up to date and correctly posted. This form is very important inasmuch as the final Descriptive Report of the Chart compiled is based upon the information contained herein.

SHEET NO. 5212  
 (807)M142 - 119, also 126  
 PHOTO NO. \_\_\_\_\_ TO PHOTO NO. \_\_\_\_\_

	BY	START	FINISH
ROUGH RADIAL PLOT	_____	_____	_____
SCALE FACTOR( )	_____	_____	_____
SCALE FACTOR CHECKED	<u>B. Sewell</u>	_____	_____
PROJECTION	<u>A. A. Futral</u>	<u>2/13/34</u>	<u>2/13/34</u>
PROJECTION CHECKED	<u>F. B. Hickman</u>	<u>2/15/34</u>	<u>2/15/34</u>
CONTROL PLOTTED	<u>F. B. Hickman</u>	<u>2/16/34</u>	<u>2/16/34</u>
CONTROL CHECKED	<u>J. Tassapoulos</u>	<u>2/16/34</u>	<u>2/16/34</u>
TOPOGRAPHY TRANSFERRED	_____	_____	_____
TOPOGRAPHY CHECKED	_____	_____	_____
SMOOTH RADIAL LINE PLOT	<u>F. B. Hickman</u>	<u>2/17/34</u>	<u>2/20/34</u>
RADIAL LINE PLOT CHECKED	<u>B. Sewell</u>	<u>2/20/34</u>	<u>2/20/34</u>
DETAIL INKED	<u>J. W. Griffith, Jr.</u>	<u>3/2/34</u>	<u>3/31/34</u>
AREA DETAIL INKED	<u>103</u>	sq. Statute Miles	
LENGTH OF SHORELINE OVER 300 m.	<u>28.4</u>	Statute Miles	
LENGTH OF SHORELINE UNDER 300 m.	<u>33.4</u>	Statute Miles	
GENERAL LOCATION	<u>Atlantic South Coast of South Carolina</u>		
LOCATION	<u>Calibogue Sound</u>		
DATUM STATION	<u>Daufuskie Rear Range, 1920</u>	Latitude	<u>32-08+1298.3 m 32°08'42.140" (1298.0m)</u>
	<u>N. A. 1927 Datum</u>	Longitude	<u>80-50+311.8 m 80°50' 11.946" (313.1m)</u> (adjusted)

d.R.S.

## COMPILATION METHOD:

This sheet was compiled by the standard radial line plot method. At the north end of this sheet the stations Ram and May were hard to hold due to the difficulty of recovering the stations on the photographs. The plot was carried through holding the beacon New and later the position of Chim was secured which checked in perfectly with the plot.

## ADJUSTMENT OF PHOTOGRAPHS:

No great difficulty was experienced in adjusting the photographs on this sheet. There was very little tilt in these photographs, making the adjustment between radial points a rather simple process.

## INTERPRETATION:

These photographs were unusually clear and sharp, causing no trouble in the interpretation of the detail. The standard topographical symbols were used to indicate the detail on this sheet. The two small hammocks at Lat. 30-09, Long. 80-52 have been connected by earth embankments which are shown on this sheet by a double row of sand dots. The stereoscope was used to pick up as accurately as possible, the detail of the photographs. The bluff along the high water line and along the marshes were determined in this way. All of the roads are secondary and in the heavily wooded areas are often very difficult to follow. In such cases the roads have been broken at the edge of the woods and only those that definitely show up through the trees are drawn in.

## INFORMATION FROM OTHER SOURCES:

The photographs and field sketches were the only source of information used on this sheet.

## COMPARISON WITH OTHER SURVEYS:

Junctions with adjoining sheets compiled in this office are complete and satisfactory. There are no details appearing on the charts that should be removed.

## ACCURACY AND COMPLETENESS:

The area covered on this sheet is complete in every detail. As nearly as can be determined from the photographs, all well defined detail is located with a probable error of not more than 4 meters; less well defined detail with an error of not more than 10 meters.

## PHOTOGRAPHS:

No.	to	No.	Date	Time	Stage of tide;
(807)M142	-	M149	12/18/33	11:45	5/9
" M126	-		12/6 /33	10:30	5/6

*J. W. Griffith, Jr.*  
J. W. Griffith, Jr.,  
Draftsman

APPROVED:

*S. B. Grenell*  
S. B. Grenell

INSPECTION REPORT

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Sheet No. 5212

REFERENCE:

In reviewing this sheet in the Washington office, reference should be made to the General Report attached to sheet No. 5206.

GENERAL INFORMATION:

The area shown on this sheet was covered by a single flight of single lens pictures centered along the Inside Route. With the exception of a low bluff along the tip of Hilton Head Island between Calibogue Sound and Broad Creek and another low bluff along the north shore of Daufuskie Island the land is low and flat and bordered with the usual growth of salt marsh. The fast land areas, except where cleared, are heavily wooded with a mixed growth of oak, pine, and deciduous brush. The oak predominates along the marsh borders and on the smaller hammocks and the pine in the flat, sandy interiors.

Near the mouth of Calibogue Sound the marsh is bordered in places with a strip of white sand which bares at low water. Further inland the sand formation turns to mud. In general the edges of the marsh along the channels and streams is clear cut and forms a definite, continuous line.

CONTROL:

There were two stations on this sheet located by F. S. Borden in 1920. The balance of the control came from the scheme put in by C. A. Egner in 1931.

LANDMARKS FOR CHARTS:

Form 567 for this area will be submitted by C. A. Egner, 1934.

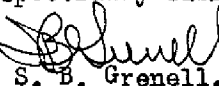
COAST PILOT NOTES:

Notes for this area will be submitted by C. A. Egner, 1934.

LIST OF NAMES:

All names appearing on this sheet were taken from current issues of charts.

Respectfully submitted,

  
S. B. Grenell.

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SUPPLEMENT  
To  
DESCRIPTIVE REPORT

Sheet #5212

In making comparisons between field topography and photo compilations in the Washington office it was discovered that sections of Buck Island and Long Island were in error on the compilations. The sheet and photographs were returned to the field party and the following errors were corrected:

The section of Long Island appearing on the compilation was taken from the edge of the photographs too far out to be reliable. This area is also covered by 1:20,000 sheet 5134 on which the section in question has been plotted. The newly plotted section on 5134 checks the field shoreline and the field topographic station on the end of the dock (POT)

The section of Long Island formerly appearing on sheet 5212 has been removed and now appears on sheet 5134 only.

Triangulation station BUCK-2 was found to be plotted in error on the 1:10,000 enlargements. It was, however, plotted correctly on the 1:20,000 five lens pictures from sheet 5134 and then projected on to sheet 5212 by the enlarging projector. Comparisons with the field topography shown in blue on sheet 5212 showed perfect checks with both shoreline and the sketch position of station BUCK-2. This proved the 1:20,000 compilation to be correct so the shoreline and detail were projected from the 1:20,000 to the 1:10,000 and the necessary corrections made on sheet 5212. The pencilled detail has been removed from sheet 5134.

The discrepancy on sheet 5212 was caused by both the erroneous pricking of station BUCK-2 and photo distortion along the edges of the prints. The original field inspection of BUCK-2 was made on the 5 lens, 1:20,000 prints and transferred to the single lens 1:10,000 prints later - hence the error in spotting .

Respectfully submitted,

*S. P. Smith*



## REVIEW OF AIR PHOTO COMPILATION NO. 5212

Chief of Party: J.B. Grenell

Compiled by: J. Y. Griffith

Project: F.P.H. Ga. Party #18

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) ✓
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)~~ ✓  
*No ground surveys available for this sheet.*
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*
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.~~ ✓  
*No topographic sheets available at date of review*
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) ✓

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) ✓  
*Form 524 submitted by hydrographic party.*
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) ✓  
*Form 567 submitted by hydrographic party.*
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*
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;

*8-31-34*

*J. B. Linnell*  
Chief of Party

19. Remarks after review in office:

*see following pages.*

Reviewed in office by:

*B*  
*B. G. Jones*

Examined and approved:

*C. K. Green*  
Chief, Section of Field Records  
*L. O. Robert*  
Chief, Division of Charts

*J. B. Jordan*  
Chief, Section of Field Work  
*Stude*  
Chief, Division of Hydrography  
and Topography.

Review of Air Photo Compilation T-5212 (1934)

Comparison with Other Surveys:

The contemporary plane table surveys show short sections of shore-line, and the locations of signals for hydrography and air photo control. However, the compilation party did not use the plane table control, and no field comparison was made between the plane table surveys and the compilation.

1. Differences in location of H.W. line by 8 to 16 meters in the following areas are due largely to differences in interpretation of the marshy shore-line and to sketching between rod readings. The compilation is accepted as correct after checking with the photographs in this office:

T-6138b (1934)	Lat. 32° 11.2'	Long. 80° 47.5'
T-6139a (1934)	Lat. 32° 08'	Long. 80° 52.1'
	Lat. 32° 09.1'	Long. 80° 52.7'

2. On T-6139a (1934) the recoverable station Son (d) at Lat. 32° 08.7', Long. 80° 51.7' was described on Form 524, filed under T-6139a as being 3 meters in from the edge of the marsh. When plotted on the compilation this station fell 7 meters out from the high water line. Inspection of the photographs shows three small hummocks about 10 meters out from the shore-line. These were not shown on the compilation. They have been added to the compilation in the office, and Ⓞ Son (d) falls on the central hummock. The description of this station has been corrected.

3. Plane table control survey T-6139b (1934). The plane table survey shows about 275 meters of the western shore line of the lower part of Buck Island from Lat. 32° 09', Long. 80° 45.5' to Lat. 32° 09.2', Long. 80° 45.4'. This shore-line differed in location from the compilation shore-line by 30 meters. Inspection of the photographs showed that triangulation station BUCK 2, 1931, Lat. 32° 09.7', Long. 80° 45', had been incorrectly spotted in the field. The compilation was returned to the compiler for correction. See the supplement to the description report for details of the corrections that were made.

*Long 4*  
At Lat. 32° 09.2', Long 80° 49.9', the plane table shore-line differs from the compilation by 0 to 18 meters. This is due to differences in interpretation of the H.W. line. Comparison with the photographs shows the tracing to be correct. Both the compilation and the plane table survey are well controlled by triangulation in this vicinity.

At Lat. 32° 10.3', Long. 80° 48.9', a short section of plane table shore-line differs from the compilation by 0 to 23 meters. The same conditions apply here as stated in the preceding paragraph, and the compilation has not been changed.

At Lat. 32° 08.8', Long. 80° 50.2', Ⓞ LEG falls 11 meters from the end of the dock shown on the compilation. The photo plot has been

Note 4/29/35. regarding error in T 6135  
found after completion of this compilation.

Δ Jessie, 1931 is plotted out of position 10  
meters on T 6135 b. apparently this

Δ station indirectly controlled the planetable  
location of. O 15 (d) and O Pale (d) and the  
accuracy of these relations is questionable.

Card descriptions have been removed  
from files and the citations will  
be removed from the compilation.

at the next printing. Note has been made in  
report T 6135 b.

B.G. Jones



checked and no other location can be found for the end of the dock. Comparison with hydrographic survey H-5571 (1934) shows this station plotted off the end of the dock. It is probably a pile, but no description is given in either the plane table or the compilation reports. It is not shown on the printed compilation.

*and nothing shown on the planter.*

4. T-4608 (1931), 1:10,000. Comparison with this survey shows a 25 meter difference in the location of the high water line from Lat. 32° 10.6', Long. 80° 47.3' to Lat. 32° 11.1', Long. 80° 47'. T-4608 shows a mud area outside the high water line, the limits of which agree well with the limits of the sand beach shown on the compilation. The high water line around the northeastern end of Barataria Island on T-4608 is in general agreement with the compilation.

5. T-3821 (1921), 1:20,000. This survey shows very little detail other than the shore-line. There are two docks and a row of piles shown on T-3821 on Hague Point at Lat. 32° 08.8', Long 80° 50.3', at Lat. 32° 08.8', Long 80° 50.2', and at Lat 32° 08.7', Long. 80° 50.1', respectively. Only one dock is shown on the compilation, at Lat. 32° 08.8', Long. 80° 50.2'. Inspection of the photographs shows what appears to be the remains of a dock at Lat. 32° 08.8', Long. 80° 50.3', but the piling can not be seen. Chart 571 shows both docks and the piling. Hydrographic survey H-5571, (1934) shows only the dock shown on the compilation. No mention is made in any of the reports about these docks. The remains of the dock at Lat. 32° 08.8', Long. 80° 50.3' have been added to the compilation in the office.

The northern point of Buck Island at Lat. 32° 10.1', Long. 80° 47.5' on the compilation is about 175 meters south of its location on T-3821. This point is connected with Bram Point at low water by a sand bar. The difference is probably due to erosion. The compilation is complete and adequate to supersede T-3821.

6. T-803, 1859-60, 1:20,000. Comparison with this survey shows several changes in the high water line in the marsh areas. The delineation of the fast land is practically the same. The compilation is complete and adequate to supersede T-803.

Comparison with charts 1240 and 571 shows practically no differences. All details shown on the charts are on the compilation with the exception of the piling noted in the comparison of T-3821 (1921), 1:20,000.

Recoverable Stations:

Recoverable stations plotted on the compilation in the office are described on Form 524 and filed as follows:

	<u>Station Name</u>	<u>Filed Under</u>
<i>See opposite page.</i>	IS(d)	T-6138b
	PALE(d)	"
	PAM (d)	"
	BEAK(d), BEACON "4"	T-6139a
	BEN(d)	"
	DOS(d), BEACON "2"	"
	SON(d)	"
	FLY(d)	T-6139b
	LOW(d)	"

Plotted by: *J. R. Sobieralski*

Checked by: *D. H. Benson*

*B. G. Jones*

IN REPLY ADDRESS THE DIRECTOR  
U. S. COAST AND GEODETIC SURVEY  
AND NOT THE SIGNER OF THIS LETTER

AND REFER TO No. 80-EHS

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY  
WASHINGTON

January 2, 1935.

To: Lieutenant (j.g.) S.B. Grenell,  
U.S.Coast and Geodetic Survey,  
Washington, N.C.

From: The Director,  
U.S.Coast and Geodetic Survey,  
Washington, D.C.

Subject: Revision of Airphoto Compilation 5212.

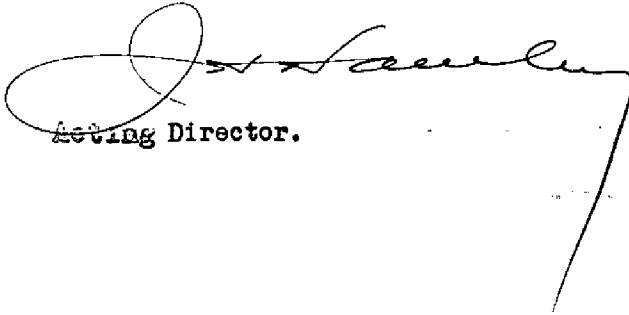
There are being forwarded to you your compilation and descriptive report No.T-5212, together with the field and office photographs, overlay tracings of planetable and hydrographic surveys in the area of this compilation, and a copy of the description of triangulation station BUCK 2, 1934.

Comparison with the 1934 planetable control survey in this area shows large differences in location of the H.W. line on Buck Island and Long Island. Examination of the photo plot indicates that triangulation station BUCK 2, 1931 is spotted out of position about 40 meters on the office prints. The apparent error in the spotting of the triangulation station is in a direction such as to cause the differences noted between the compilation and the planetable survey. Further inspection of the photographs in this office shows that triangulation stations MARSH 2, 1931 and DAUFSKIE 1920, are spotted in different positions on the field and office prints.

~~You will please replot the area of the compilation on the east~~  
side of Calibogue Sound to obtain the correct location of this shore line.

The review of your 1:10,000 scale compilation in this office has shown numerous differences in location of H.W. line between the planetable surveys and the compilation. These have been largely due to differences in interpretation and have been disposed of after careful examination of available information, by either revising the compilation or rejecting the planetable location.

However, due to the lack of first hand information this work has required considerable more time than would have been necessary to accomplish the same results by field comparison. It is understood that it is not always possible to make field comparisons without seriously delaying the compilations. However, a concerted effort should be made by the several chiefs of parties to obtain such comparisons where ever practicable to do so.



Acting Director.

GEOGRAPHIC NAMES

Survey No. T-5212

Date. April 5, 1935

Chart No. 1240-571

Diagram No. \_\_\_\_\_

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

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

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

Status	Name on Survey	Name on Chart	New Names in local use	Names assigned by Field	Location
	<u>MAY RIVER</u>	Same on 12464 571			
	<u>BARATARIA ISLAND</u>	" " " " "			
	<u>BULL ISLAND</u>	" " " " "			
	<u>BULL CREEK</u>	" " " " "			
	<u>BRYAN CREEK</u>	" " " " "			
	<u>BRYAN LANDING</u>	" " " " "			
	<u>MARSH ISLAND</u>	" " " " "			
	<u>BRAM POINT</u>	" " " " "			
	<u>OPOSSUM POINT</u>	" " " " "			
	<u>BROAD CREEK</u>	" " " " "			
	<u>BUCK ISLAND</u>	" " " " "			Most northern one of two islands shown
	<u>COOPER RIVER</u>	" " " " "			
	<u>Haig HAGUE POINT</u>	" " " " "			U.S.G.B. decision
	<u>CALIBOGUE SOUND</u>	" " " " "			
	<u>DAUFUSKIE ISLAND</u>	" " " " "			
	<u>Shark Bank</u>	" " " " "			
APPROVED NAMES UNDERLINED IN RED F.B. Kelly					