

5217

U. S. COAST & GEODETIC SURVEY
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Form 504
Ed. June, 1923

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. Patton, Director

State: GEORGIA

DESCRIPTIVE REPORT

Photo

Topographic

~~Hydrographic~~

Sheet No. 5217

LOCALITY

Coast of Georgia,

St. Catharines Sound

Walburg Island

1934

CHIEF OF PARTY

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

U. S. GOVERNMENT PRINTING OFFICE: 1923

5217

Applied to chart 839 - Nov. 7, 1935 H.W.C.

Applied to chart 573 Nov. 17, 1936 G.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. 5217 1241-2

State Georgia

General locality St. Catherine's Sound

Locality Walburg Island Sound

Scale 1:10,000 Date of Photos: 12/17/33
Date of ~~survey~~ Comp. April 19 34

Vessel

Reviewed and recommended for approval:

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

Photos plotted by: R. D. Cross
~~Surveyed by~~ J. C. Partington

Inked by C. E. Helfrich

Heights in feet above to ground to tops of trees

Contour, Approximate contour, Form line interval feet

Instructions dated November 10, 19 33

Remarks: Compilation of aerial photos Nos. (789) 111-117; 181-186; 188-190

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. 5217
(789) M11-147; 181-186; 188-190.
PHOTO NO. _____ TO PHOTO NO. _____

BY _____ START _____ FINISH _____

ROUGH RADIAL PLOT _____

SCALE FACTOR() _____

SCALE FACTOR CHECKED S. B. Grenell _____

PROJECTION A. A. Futral 3/8/34 3/9/34

PROJECTION CHECKED S. B. Grenell 3/8/34 3/8/34

CONTROL PLOTTED J. C. Partington 3/19/34 3/20/34

CONTROL CHECKED R. D. Cross 3/20/34 3/20/34

TOPOGRAPHY TRANSFERRED _____

TOPOGRAPHY CHECKED _____

SMOOTH RADIAL LINE PLOT J. C. Partington 3/20/34 3/27/34
R. D. Cross

RADIAL LINE PLOT CHECKED S. B. Grenell 3/27/34 3/27/34

DETAIL INKED Carl E. Helfrich 4/1/34 5/5/34

AREA DETAIL INKED 18.4 sq. Statute Miles

LENGTH OF SHORELINE OVER 300 m. 35.6 Statute Miles

LENGTH OF SHORELINE UNDER 300 m. 45.5 Statute Miles

GENERAL LOCATION Georgia Coast

LOCATION St. Catherines Sound

DATUM STATION Engineer-1933 Latitude 31-40+34.2.1
N. A. Datum 1927 Longitude 81-11+1085.0 (unadjusted)

COMPILATION METHOD:

The radial line plot method was used in compiling this sheet.

ADJUSTMENT METHOD:

The radial plot was run accurately and with a minimum amount of difficulty. The enlargements were close to the required scale. Very little tilt was noticed in these photographs; all of which made large adjustments between points unnecessary.

INTERPRETATION:

The photographs were reasonably clear except for a small number on the east side of the sheet. The shoreline in some cases was doubtful between Lat. 31-40 to 42, Long. 81-10 to 12 (St. Catherines Sound). The difficulty arose over the mud and oyster rakes that extend along the banks at this point. A check was made by hydrographic parties and the shoreline was determined accurately.

The tree formation on south end of Ossabaw and north end of St. Catherines was exaggerated somewhat to show unusual formation.

INFORMATION FROM OTHER SOURCES:

The only information available was from the photographs and field inspection.

COMPARISON WITH OTHER SURVEYS:

All junctions with adjoining sheets are accurate and satisfactory. (~~From North to South~~)

ACCURACY AND COMPLETENESS:

The area covered by this sheet is complete in every detail as nearly as can be determined by 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
(789)	M188	-	M190	12/17/33	11:15	4/8
"	M141	-	M147	12/17/33	11:00	4/8
"	M181	-	M186	12/17/33	11:00	4/8

The times noted above were taken direct from the prints. It is to be noted that two of the flights are recorded at the same time.

C. E. Helfrich,
C. E. Helfrich
 Draftsman

APPROVED:
S. B. Grenell
 S. B. Grenell

INSPECTION REPORT

Sheet No. 5217

REFERENCE:

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

GENERAL INFORMATION:

The greater part of the area covered by this sheet consists of the usual type of salt marsh. The channel lines are in general, well defined and the berm of the marsh clean out and clear.

The only unusual topographic feature is the tree formation on the wooded areas of Ossabaw and St. Catherines Island. This feature is not very apparent from the ground but the aerial photographs show up the old beach lines as indicated by the varying density of growth. This feature may be of possible use in the study of the trend of beach erosion.

CONTROL:

With the exception of stations Med and Way, which were located in 1925, all of the control for this sheet was included in the triangulation of C. M. Durgin, 1932-3 and C. A. Egner, 1934. There were no topographic stations used for control on this compilation. *The control is barely sufficient for a good radial plot. Lamm.*

LANDMARKS FOR CHARTS:

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

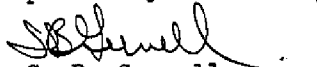
COAST PILOT NOTES:

Notes will be submitted by C. A. Egner, 1934.

NAMES:

All names appearing on this sheet were taken from current issues of charts. *There are no new or conflicting names. Lamm.*

Respectfully submitted,


S. B. Grenell.

REVIEW OF AIR PHOTO COMPILATION T-5217 (1934)

June, 1935.

1. Projection.

The projection has been checked in the office. Meridian $81^{\circ}11'$ is 2 to 3 meters too far east. The rest of the projection is correct. No change has been made as it would affect the positions of control stations.

2. Comparison with Contemporary Graphic Control Surveys.

a. T-6151b (1:10,000) 1934. At lat. $31^{\circ}41.7'$, long. $81^{\circ}11.3'$ the compilation shore line was from 20 to 60 meters outside the shore line on T-6151b. After inspecting the photographs under the stereoscope, the compilation shore line was retraced from \odot TOP(d) to \odot HOUR (d). The difference between the compilation and T-6151b is now 0 to 15 meters. This is due to different interpretations of the high water line on shell banks. T-6151b shows the top of the bank which is probably the storm water line. The compilation shore line has been traced along what appears to be a debris line part way up the slope.

Further inspection of the photographs showed that the compilation shore line from the marsh point near Δ SPIT, 1934, to Δ LOON, 1934, was originally traced at the water line shown on the photographs. As the photographs were taken at 4/8 tide, it was necessary to retrace the shore line in the office. The high water line was determined as nearly as possible by use of the stereoscope.

Details appearing on T-6151b which are not shown on the compilation are the magnetic meridian and temporary topographic stations.

b. T-6175 (1:10,000) 1934. At lat. $31^{\circ}40.0'$, long. $81^{\circ}10.5'$, and at lat. $31^{\circ}41.4'$, long. $81^{\circ}09.5'$, the compilation shore line and the shore line on T-6175 differ by 0 to 20 meters. It appeared as if this might have been caused by an error in the photo plot which is weak. A new plot was made and this checked the field plot. No change has been made in the compilation.

At lat. $31^{\circ}41.4'$, long. $81^{\circ}11.6'$, the compilation shore line fell from 40 to 60 meters outside the shore line on T-6175. After making the correction discussed in the first paragraph under T-6151b, the difference between the compilation and T-6175 is 0 to 15 meters. This remaining difference is due to different interpretations of the high water line on shell banks.

Details appearing on T-6175 above lat. $31^{\circ}38.3'$ which are not shown on the compilation are the magnetic meridian and temporary topographic stations.

3. Comparison with Previous Surveys.

T-841 (1858-60), T-1060 (1867), T-3411 (1913), & T-4123 (1925).
These are plane table surveys, all on a scale of 1:20,000. Shore line and adjacent details only are shown on T-3411 and T-4123.

Comparison shows that the entrance to St. Catherines Sound has been slowly moving south.

T-4123 shows a small rock point (lat. 31°40.0', long. 81°09.7') which projects the high water line about 40 meters further out than the compilation high water line. There is no evidence of this point on the photographs. The development of this area on H-5582 (1934) shows no rock outcrops or rocky shore line. The compilation has not been changed.

The compilation is complete and adequate to supersede those areas on T-841, T-1060, T-3411, and T-4123 which it covers.

4. Comparison with Hydrographic Surveys.

H-5582 (1:10,000) 1934. There are no conflicts between the compilation and the hydrography.

5. Comparison with Charts.

The area covered by the compilation is shown on charts 573 and 1241. The compilation is more detailed in the marsh areas than the charts. The charts show several roads on St. Catherines Island. No roads were shown on the compilation by the field party. The probable locations of several roads and trails were added to the compilation in the office. The island is heavily wooded and only short sections of road could be definitely identified. In most cases the trails were located by the spacing of the trees.

6. Recoverable Stations.

The following recoverable stations, described on Form 524, were transferred to the compilation in the office, and are filed as follows:

<u>Station</u>	<u>Filed under</u>
BACK	T-6175
Beacon "1", Johnson Creek	"
Beacon "2", " "	"
Front Range, Walbury Creek	"
Rear Range, " "	"
"H"	"
TOP	"
WE	"
HOUR	T-6151b
LOG	"
MAR	"
NEW	"

Plotted by V. R. Sobiesalski - Checked by D. H. Benson

7. Landmarks and Beacons.

All landmarks and beacons shown on Charts 573 and 1241 are shown on the compilation. The charts show Johnson Creek Beacon "1" on the east bank at the entrance to Johnson Creek. The plane table position which is shown on the compilation places the beacon in the water. This is in accordance with the Light List.

8. Remarks.

It is apparent that the photographs have not been used to the greatest advantage. A large part of the compilation is marsh area. The compilation does not give as complete a picture as is possible. The marsh is broken by numerous small sloughs and creeks. The more prominent sloughs are shown by double or single lines on the compilation and the locations of others have been indicated by breaks in the marsh symbol. This could have been done to a greater extent, and more single line streams added to give a truer picture of the area.

V. Ralph Sobieralski
8-3-35

Approved
K.T. Adams

B. G. Jones

Survey No. T-5217

GEOGRAPHIC NAMES

Date. 3-4-35

Chart No. 1241-573

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.

[illegible]

REVIEW OF AIR PHOTO COMPILATION NO. 5217

Chief of Party: S. B. GRENNELL

Compiled by: C. E. Helfrich

Project: F.P. 4, 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) *Nothing to be removed from charts*
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) *None*
- ~~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. *Shoreline checked against all hydro. & topo. sheets available to date.*
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) *No unusual adjustment.*
7. High water line on marshy and mangrove coast is clear and ade- ✓ quate 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 C.A. Egner, 1934
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 C.A. Egner, 1934.
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) ✓
No new names
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;

9/13/34

J. B. Hennell

Chief of Party

19. Remarks after review in office: *See Review*

Reviewed in office by: *V. R. Sobienalski* ✓ *B. G. Jones*

Examined and approved:

K. T. Adams

Asst Chief, Section of Field Records

John A. Adams

Chief, Division of Charts

F. B. Jordan

Chief, Section of Field Work

W. H. de

Chief, Division of Hydrography and Topography.