

5231

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

DESCRIPTIVE REPORT

Topographic } Sheet No. 5231
~~Hydrographic~~

State Georgia

LOCALITY
~~Georgia East Coast~~

Cumberland Island

1935

CHIEF OF PARTY
S. B. Grenell

5231

applied to chart 448 (thru chart 841) July 1937 J.S.R.

applied to chart 1242, Mar. 16, 1939 G.H.S.

DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY

REG. NO.

TIC SURVEY
YES

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. 5231

State Georgia

General locality Georgia East Coast

Locality Cumberland Island

Scale 1:10,000 photographs: 11-24-33; 12-16-33; 11-26-33
Date of survey 1933

Vessel Aerial Photo Compilation Party No. 18

Reviewed and recommended for approval:

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

Photographs plotted by B. Hickman

Surveyed by B. Hickman

Inked by John Tassapoulos

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 photos Nos. 790 I M9 to M-13:

M-262 to M-266; M-69 to M-78

...

--NOTES OF 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 personnell 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. 5231

	790 I M-9	M-13
PHOTO NO.	M262 to PHOTO NO.	M-266
	M-69	M-78
BY	START	FINISH
ROUGH RADIAL PLOT <u>F. B. Hickman</u>		
SCALE FACTOR () <u>F. B. Hickman</u>		
SCALE FACTOR CHECKED <u>S. B. Grenell</u>		
PROJECTION <u>A. M. Gruber</u>	<u>4-15-34</u>	<u>4-15-34</u>
PROJECTION CHECKED <u>Warren Fitch</u>	<u>4-15-34</u>	<u>4-15-34</u>
CONTROL PLOTTED <u>A. A. Futral</u>	<u>4-17-34</u>	<u>4-17-34</u>
CONTROL CHECKED <u>W. R. Taylor, Jr.</u>	<u>4-18-34</u>	<u>4-18-34</u>
TOPOGRAPHY TRANSFERRED <u>John Tassapoulos</u>	<u>Various</u>	<u>Times</u>
TOPOGRAPHY CHECKED <u>S. B. Grenell</u>	<u>"</u>	<u>"</u>
SMOOTH RADIAL LINE PLOT <u>F. B. Hickman</u>	<u>5-24-34</u>	<u>6-9-34</u>
RADIAL LINE PLOT CHECKED <u>S. B. Grenell</u>		<u>6-9-34</u>
DETAIL INKED <u>John Tassapoulos</u>	<u>6-25-34</u>	<u>3-25-35</u>
AREA DETAIL INKED <u>23.3</u>	Square Statute Miles	
LENGTH OF SHORE LINE OVER 200m. <u>40.0</u>	Statute Miles	
LENGTH OF SHORE LINE UNDER 200m. <u>26.7</u>	Statute Miles	
GENERAL LOCATION <u>Georgia East Coast</u>		
LOCATION <u>Gumberland Island</u>		
DATUM STATION <u>Stafford, 1860 - 1933</u>	LATITUDE <u>30 - 49 - 13.549 (417.2M)</u>	
DATUM <u>N. A. 1927</u>	LONGITUDE <u>81 - 28 - 19.270 (512.2M)</u>	

UNADJUSTED

INSPECTION REPORT
for
COMPILATION No. 5231
Scale: 1:10,000

REFERENCE:

In reviewing this compilation in the Washington office reference should be made to the General Report for Single Lens Compilations filed with compilation No. 5206.

GENERAL INFORMATION:

The greater part of this compilation was completed several months ago but the north east corner was held up for completion of adjoining compilation 5129. There is a flight junction on the outer coast in Lat. $30^{\circ}-49'$ which indicates a difference in low water line as taken from the photographs. One flight was made at near L.W.; the other at about $2/3$ tide.

The various topographic features are clearly indicated by the conventional symbols. It was necessary to use the stereoscope extensively in picking up roads and trails through heavily wooded portions of the compilation.

CONTROL:

The radial plot was controlled entirely by triangulation from the coordinating scheme of C. M. Durgin, 1933 and traverse run in by the compilation party. The traverse was closed between CUMBERLAND ISLAND WINDMILL and OLD TOWER on the north end of the island.

COMPARISON WITH CONTEMPORARY SURVEYS:

All shoreline on this compilation was checked against the smooth hydrographic sheets of H. A. Paton to which the rodded in topography of that party had been applied.

LANDMARKS AND COAST PILOT NOTES:

The above have been submitted by H. A. Paton, 1934.

NAMES ON OVERLAY SHEET:

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

Respectfully submitted,


S. B. Grenell

REPORT OF COMPILATION:RADIAL LINE PLOT:

This sheet was compiled by the standard radial line plot method. A small discrepancy was found in the picking of station CUMBERLAND ISLAND WINDMILL and was attributed to congestion of trees and houses in immediate area abliterating the major portion of the structure. This difference was small and did not introduce much error in the compilation. Station DELAROCHE was also in error, there being some question as to whether the station reference mark was recovered by field party. Station CARNEGIE was not held on final plot using traverse CUMBERLAND ISLAND WINDMILL to CUMBERLAND ISLAND LIGHT HOUSE at north end of island. Actual position of CARNEGIE was not recovered in field survey due to the presence of sand dune of considerable height covering up the actual station marker.

ADJUSTMENT OF PHOTOGRAPHS:

Major portion of pictures were clear but detail on others seemed diffused caused by enlargement. Only an average amount of tilt was evident and small adjustments combined with interlacing points overcame the difficulty. Pictures 262 to 266 were of a scale larger than the plot necessitating considerable minute adjustments between radial points.

INTERPRETATION:

The abrupt change of beach width at $30^{\circ}-49'$ was caused by difference of tides on the two flights joining here. Water areas immediately behind first shoals are a clear indication of changes taking place all along the Atlantic Seaboard, where ridges of sand are building up.

Attention is called to scarcity of palm trees on Cumberland Island. There is, however, a great deal of palmetto clumps along the sand duned interspersed with myrtle bushes. The latter was shown with brush symbol.

Numerous ponds are indicated with solid lines outlining open area.

Road traversing center of cultivated area at $30^{\circ}-49.5'$ and $81^{\circ}-27.2'$ is built up on a levee which is flanked on either side with irrigation ditches extending on to stream at road junction $81^{\circ}-27.6'$ and $30^{\circ}-50.4'$

COMPARISON WITH CONTEMPORARY SURVEY:

The junctions with adjoining sheets compiled in this office are complete and satisfactory. Photographs and field notations were the only sources of information used on this sheet.

Tracing of shoreline of this sheet was forwarded to the Hydro. party of Lieut. H. A. Paton for comparisons with hydro sheets. No discrepancies were indicated as existing.

COMPARISONS WITH OTHER SURVEYS:

For the most part the detail on this sheet agrees with the charted detail of the U. S. C. & G. Survey charts No. 3257 compiled in December, 1930 and revised June 5, 1933. However, the dock indicated at 30° - 48.8' and 81° - 28.2' should be removed as same has been abandoned and is fast rotting away.

ACCURACY AND COMPLETENESS:

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

PHOTOGRAPHS:

No.	to	No.	Date	Time	Stage of Tide
790 I	M-9 to	M-13	11-24-33	12:05	4/6
	M-262	M-266	12-16-33	2:30	1/7
	M-69	M-78	11-26-33	11:15	1/6

John Tassapoulos
John Tassapoulos
Craftsman

Approved:

S. S. Grenell
S. S. Grenell

Remarks

Decisions

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2		Oldhouse Creek
3	KTR	
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GEOGRAPHIC NAMES

Survey No. T5231

GEOGRAPHIC NAMES		Survey No. T5231		On Chart No. 1242		On previous survey No. T 1152		On U. S. quadrangle Maps		From local information		On local Maps		P. O. Guide or Map		Rand McNally Atlas		U. S. Light List	
Name on Survey		A	B	C	D	E	F	G	H	K									
King Bay		*	King's Bay	Kings Bay		✓													1
old House Creek				oldhouse Cr		✓													2
Stafford Island		*		✓		✓													3
Cumberland Island		*	✓	✓		✓													4
Crooked River		*	✓	✓		✓													5
Flood Island		*		Floods I		✓													6
Brickhill River		*	✓	✓		✓													7
Cumberland Dividings		*				✓													8
Dela roche Creek		*	✓	✓		✓													9
																			10
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Names underlined in red approved

by K.T.A on 7/15/36

M 234

REVIEW OF AIR PHOTO COMPILATION T-5231

Scale 1:10,000.

Graphic Control Surveys.

(a) The following recoverable topographic stations shown on the graphic control surveys and triangulation stations were plotted on the compilation in this office by D. H. Benson and checked by *V. R. Soderlund* *D. H. Benson*

Station Name	Description filed under G. C. S. No.
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① SPY (d)	T-6188b
② NEW (d)	"
③ EGG (d)	"
④ BIZ (d)	T-6189b
⑤ BIN (d)	"
⑥ JEW (d)	"
⑦ GON (d)	"

Δ	Cumberland River	Delaroché Creek Range	Rear	Beacon	1933
Δ	"	"	"	Front	"
Δ	"	Dividings Range	"2"	Rear	"
Δ	"	"	"	"2" Front	"
Δ	"	"	"	"1" Rear	"
Δ	"	"	"	"1" Front	"
Δ	"	Beacon	"6"		1933
Δ	"	Crooked Creek Range	Rear		"
Δ	"	"	"	Front	"

Odd U. S. E. 1933

(b) T-6188b (June 1934) 1:10,000. There are short stretches of shoreline rodged in on the plane table survey which differ from the compilation shore line by as much as 40 meters in places.

Examination of the photographs and radial plot checked the compilation shore line except for the high water line around the point between Cumberland River and Crooked River. At this point most of the plane table high water line checked with the replotted shore line from the photographs, except for a small channel across the point, which is not indicated on the plane table sheet.

In Brickhill River at lat. 30°51' on the east shore the high water-line of the plane table fails to check the compilation by 20 meters. The photographs clearly check the compilation at this point.

Other differences in the high water line are of a minor character.

(c) T-6189b (July 1934) 1:10,000. Two sections of high water line were rodded in on the graphic control sheet. The high water line near Δ Old House 1933 agreed fairly closely with the compilation. The high water line on the southwest side of King Bay failed to check the compilation by 20 meters. Examination of the photographs and field prints indicated that the high water line on the compilation had been traced along the edge of the trees. The field prints noted a sand beach at this point. A line was drawn on the sand beach where it appeared and the high water line should be, and this line was traced on the compilation. It agrees closely with the plane table high water line. An abandoned pier was added to the compilation from the photographs in the same area.

(d) All detail shown on T-6188b and T-6189b within the area of the compilation is shown on the compilation except for temporary topographic stations, the magnetic declinations and the azimuths of the following Ranges shown on T-6188b. These ranges have been located by triangulation and the azimuths computed by the field party and lettered on the plane table sheet.

Cumberland River Delaroche Creek Range	166° 11'
Cumberland River Dividings Range "2"	189° 3'
Cumberland River Dividings Range "1"	39° 17'
Cumberland River Crooked River Range	356° 16'

The computation of the azimuths has not been checked in this office.

Comparison with Hydrographic Surveys.

H-5753 (June 1934) 1:10,000. No important discrepancies were noted between H-5753 and T-5231. There are minor differences in shore line but no conflicts with sounding positions.

Comparison with Previous Topographic Surveys.

(a) T-624 (1857). T-624 is a reconnaissance for a base line survey and does not show enough topography for a comparison.

(b) T-1152 (1870) 1:20,000. Not much change in the topography of the interior waterways has taken place since 1870. Two fairly large islands have formed since that time at lat. 30°50.8', long. 81°29' and at lat. 30°2', long. 81°29'. Otherwise only minor changes have occurred.

There has been a considerable development of roads on Cumberland Island, some roads falling into disuse and others being built.

Many intermittent ponds on Cumberland Island as shown on the compilation are not shown on T-1152.

The Atlantic shore line appears to be much the same as it was in 1870 but no exact comparison was made. An abandoned pier at lat. $30^{\circ}48.9'$, long. $81^{\circ}28.5'$ does not show on the photographs and is discussed on Descriptive Report ~~H-5253~~. T-5231, page 2, paragraph 1.

T-5231 is complete and adequate to supersede T-1152 except for a low bluff line around the higher ground in the marshes.

(c) T-4095 (1924) 1:20,000. Only the Atlantic shore line of Cumberland Island is shown on T-4095.

The shore has eroded at lat. $30^{\circ}50'$ by 80 meters since 1924.

Elsewhere the erosion has not amounted to over 15 meters.

The compilation is complete and adequate to supersede T-4095.

Comparison with Charts 1242.

Changes to be made in the charts are discussed under comparison with previous surveys.

General.

The drafting on T-5231 was very good, except that breaks were left in the shore lines of some of the marshes where small streams could have been traced in. These were added in this office.

There are some roads on previous surveys which do not appear on this compilation. These roads are through heavily wooded areas and could not be seen on the photographs; it seems probable some of them still exist.

D. H. Benson
B. G. Jones 12/3/35

REVIEW OF AIR PHOTO COMPILATION NO.

Chief of Party: S.B. GRENELL

Compiled by: John Tassopoulos

Project: F.P. 4, Co. 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) *No Changes*
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* ✓
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) ✓

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." N-87

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 by H.A. Paton, 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 by H.A. Paton, 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)
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;

April 10, 1935

J.B. Borden

Chief of Party

19. Remarks after review in office:

See following pages

Reviewed in office by: *D.H. Benson* ✓ *B.G. Jones*

Examained and approved:

C. K. Green

Chief, Section of Field Records

L.O. Solhat

Chief, Division of Charts

T.B. Borden

Chief, Section of Field Work

G. M. Munde

Chief, Division of Hydrography
and Topography.

Applied to Chart 841 March 19, 1936 Wallace A. Bender