

5122

U. S. COAST & GEODETIC SURVEY
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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. 5122
~~Hydrographic~~ }

State Georgia

LOCALITY
Vicinity of Altamaha Sound
Georgia East Coast

Darien
~~Altamaha River~~

1933

CHIEF OF PARTY

S. B. Grenell

U. S. GOVERNMENT PRINTING OFFICE: 1934

5122

Applied to Chart 840 Dec. 1935 W.A.B.

Applied to new compilation drawing of Chart 574 - Oct. 28, 1936 - J.H.W.

" " " " ch. 575 - June 1937 P.H.R.

Applied to Chart 1242 Mar. 16, 1939 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. 5122

State Georgia

Vicinity of Altamaha Sound
General locality Georgia East Coast

Locality Darien
Altamaha River

Scale 1:20,000 Date of survey photographs:- 9-20-33; 9-22-33
Comp.: 19

Vessel Aerial Photo Compilation Party #18

Reviewed and recommended for approval:

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

Photographs Plotted by:- F. B. Hickman
~~Surveyed by~~

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 photos Nos.:-M-66 80 to 94;

M-67 29 to 47

--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. 5122

M-66 80 94
PHOTO NO M-67 29 to PHOTO NO 47

BY	START	FINISH
ROUGH RADIAL PLOT <u>B. B. Lewis</u>	_____	_____
SCALE FACTOR (.915) <u>B. B. Lewis</u>	_____	_____
SCALE FACTOR CHECKED <u>S. B. Grenell</u>	_____	_____
PROJECTION <u>A. M. Gruher</u>	<u>8-15-34</u>	<u>8-16-34</u>
PROJECTION CHECKED <u>S. B. Grenell</u>	<u>8-16-34</u>	<u>8-16-34</u>
CONTROL PLOTTED <u>Warren Fitch</u>	<u>8-22-34</u>	<u>8-23-34</u>
CONTROL CHECKED <u>F. B. Hickman</u>	<u>8-23-34</u>	<u>8-23-34</u>
TOPOGRAPHY TRANSFERRED <u>J. W. Griffith, Jr.</u>	<u>r. Various Times</u>	_____
TOPOGRAPHY CHECKED <u>S. B. Grenell</u>	"	"
SMOOTH RADIAL LINE PLOT <u>F. B. Hickman</u>	<u>8-24-34</u>	<u>11-2-34</u>
RADIAL LINE PLOT CHECKED <u>S. B. Grenell</u>	_____	_____
DETAIL INKED <u>J. W. Griffith, Jr.</u>	_____	<u>2-15-35</u>
AREA DETAIL INKED <u>108.1</u>	Square Statute Miles	
LENGTH OF SHORE LINE OVER 200m. <u>49.3</u>	Statute Miles	
LENGTH OF SHORE LINE UNDER 200m. <u>57.3</u>	Statute Miles	
GENERAL LOCATION <u>Altamaha Sound</u>	<u>Georgia East Coast</u>	
LOCATION <u>Darien</u>	<u>Altamaha River</u>	
DATUM STATION <u>Dent 1932</u>	LATITUDE <u>31 - 18 - 18.232 (561.5M)</u>	
DATUM <u>N. A. 1927</u>	LONGITUDE <u>81 - 27 - 41.936 (1109.0M)</u>	

(unadjusted)

INSPECTION REPORT
for
COMPILATION No. 5122

Scale: 1:20,000

REFERENCE:-

In reviewing this sheet in the Washington office reference should be made to the General Report for 5* Lens Compilations forwarded with compilation 5114.

GENERAL INFORMATION:-

This compilation covers the general area of the Altamaha River delta at Darien, Georgia. The stream system is very complicated and has been very carefully compiled and checked against the hydrographic sheets of the area. The road systems, canals, railroads, wooded areas etc. have been distinctly shown with the conventional symbols and require no special comment. The compiler has discussed the main features in his report which is very complete.

CONTROL:-

The radial plot of this compilation was controlled entirely by triangulation and traverse from the following schemes:

First order arc by C. D. Meaney, 1932
Coordinating scheme of C. M. Durgin, 1933
Traverse by Melvin E. Lutz, 1917
Traverse by Compilation Party No. 18, 1934

The latter traverse was run between stations DARIEN and McLENDON along the highway for a distance of 9.9 miles. Theodolite and tape were used and the computed closure before adjustment was 2.8 meters. The road was very crooked and it was necessary to make thirty (30) setups on the traverse.

COMPARISON WITH CONTEMPORARY SURVEYS:-

All junctions with adjoining sheets have been made as noted in the compilers report. Lieut. C. A. Egner ran a fixed control for hydrography up the Altamaha River approximately to the western limit of the old rice plantations. The compilation has been checked against the field topographic sheets for this area and found to be in agreement.

Above the rice fields area Lieut. Egner found it impossible to extend control due to the heavily wooded swamps which border the various channels of the main river. In this section a rather ingenious expedient was used with remarkable success. The hydrographic party took field prints covering the upper river and used them as boat sheets to control or spot the hydrography and noted such features on the prints as lone trees in the water, white sand spots, small streams etc., to which the hydrography was referenced. These field prints were then brought in to the office and the reference points transferred to the mounted prints and thence to the compilation. The compilation was then enlarged to 1:10,000 scale on the projector and the shoreline and control transferred to the smooth sheets. The entire operation was a complete success.

Hydro.

LANDMARKS AND COAST PILOT NOTES:-

The above have been submitted by Lieut. C. A. Egner for the Altamaha River delta section. It is doubtful if any coast pilot notes have been made for the river west of Long. 81° - 30' as this section has never been field surveyed on fixed control except as noted in the preceding paragraph.

NAMES:-

All names appearing on the overlay sheet were taken from current issues of charts and from Geological Survey and U. S. Army quadrangles.

BRIDGES:-

Data for the four highway bridges at Darien as shown on the overlay sheet have been taken from the corrected bridge records of the U. S. E. D. office at Savannah, Georgia.

Respectfully submitted,



S. B. Grenell,
Chief of Party No. 18

REPORT OF COMPILATION:-RADIAL LINE PLOT:-

This sheet was compiled by the standard radial line plot method. Some difficulty was experienced in holding the control on M-66 flight, the station WOOD being off continually. Since the station WOOD is back up in the trees it was hard to tie in and as a result is pricked in different places on the photographs. The common points between flights on this sheet held fine. All of the adjoining sheets have the same scale factor with the exception of sheet No. 5125, its scale factor being .925. This junction was made by adjusting the radial points through square by square, causing no more difficulty than would be expected when making a junction at different scales.

ADJUSTMENT OF PHOTOGRAPHS:-

Several pictures on the sheet contained a good bit of tilt, such photographs were not used, the detail being secured from adjoining pictures. Except between flights when the areas were heavily wooded or the photographs dim the radial points were well selected and spaced. When additional points were needed the existing radial points were interlaced and these intersections used as new points, but on the whole no unusual difficulties were encountered.

INTERPRETATION:-

The photographs, with the exception of some of the wings which were rather dim, were fairly clear and the detail sharply defined. There are a great many abandoned rice fields appearing along the Altamaha River on this compilation. The main canals and irrigation ditches have been shown throughout these fields. The row of tree symbols running from Lat. $31^{\circ} 18.3$, Long. $81^{\circ} 28.1$ to Lat. $31^{\circ} 14.4$, Long. $81^{\circ} 29.2$ indicates the position of the old abandoned Brunswick - Altamaha Canal. The hachures around Butler Island from Lat. $31^{\circ} 20.3$, Long. $81^{\circ} 27$ to Lat. $31^{\circ} 21.3$, Long. $81^{\circ} 26.7$ indicates a dike along side of an irrigation ditch. Otherwise, the standard topographical symbols were used throughout this sheet.

COMPARISONS WITH CONTEMPORARY SURVEYS:-

The junctions with adjoining sheets, 1:10,000 and 1:20,000 scale, completed in this office, are complete and satisfactory with the exception of a small hammock at Lat. $31^{\circ} 22.5$, Long. $81^{\circ} 23.2$ on this sheet that was omitted from the adjoining 1:10,000 compilation No. 5221. The photographs and field notations were the only sources of information used on this sheet.

COMPARISONS WITH CONTEMPORARY SURVEYS:-

For the most part ~~of~~ the detail on this sheet agrees with the charted detail. At Lat. $31^{\circ} 22.8$, Long. $81^{\circ} 24.5$ there is a bridge shown on the 1:80,000 scale chart No. 1242 that does not show up on the photographs.

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 possible error of not more than 4 meters; less well defined detail with an error of not more than 10 meters.

*See
Review*

PHOTOGRAPHS:-

No.	to	No.	Date	Time	Stage of Tide
M-66	80	94	9-20-33	11:15AM	
M-67	29	47	9-22-33	10:00AM	

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

Approved:

S. B. Grenell
S. B. Grenell

REVIEW OF AIR PHOTO COMPILATION T-5122

1. Comparison with Graphic Control Surveys.

(a) T-6161a, T-6162a, (1934) 1:10,000. Slight discrepancies in shore line with the above plane table surveys have been examined and in most cases the shore line could be brought into agreement with the surveys but there are a few places where the rodded shore line disagrees by 3 to 10 meters, apparently due to sketching between rod readings or interpretation.

(b) All information and detail shown on the above listed graphic control surveys within the area of the compilation is now shown on the compilation except the temporary topographic signals and magnetic meridian.

2. Comparison with Recent Hydrographic Surveys.

(a) H-5581, H-5631, H-5634, H-5635, (1934) 1:10,000. A small island at lat. $31^{\circ} 18.3'$, long. $81^{\circ} 25.1'$ has been added to the compilation which is not shown on H-5581 covering the area. This has been referred to the reviewing section and has now been added to the hydrographic survey. A small island that appears on the compilation at lat. $31^{\circ} 22.5'$, long. $81^{\circ} 30.5'$ has not been shown on H-5635 covering this area. This has been referred to the reviewing section. Several small shore line corrections have been made on the compilation but these do not affect the soundings. The Hydrographic Surveys listed above are now in agreement with the compilation.

3. Comparison with Former Surveys.

(a) T-1114, (1869) 1:20,000, covering the area does not show the bridge over the South Altamaha, Altamaha and Darien Rivers. There are no other important changes. The compilation is complete and adequate to supersede the portion of the survey which it covers.

4. Recoverable Stations.

The recoverable stations which are shown on graphic control surveys T-6161a and T-6162a and are covered by the compilation have been added to the compilation in the office. There are two described stations that are on one house, station VEX the south chimney, and station CHY the north chimney, approximately 8 meters apart for this reason, station CHY has been omitted from the compilation.

Triangulation stations added to the compilation in the office are:

Darien River Highway Bridge, Center of Space - 1933
Darien Church Spire - 1932
Darien Water Tank - 1932

Plotted by *L.C. Lande* . Checked by *M.D. Crook*

Descriptions of the recoverable stations are filed on form 524 under the Graphic Control Survey numbers T-6161a and T-6162a.

5. Bridge Data.

Bridge clearances for the two drawbridges on the highway leading through Darien are given on the several recent surveys as follows:

South Altamaha River Bridge

<u>Vert. Clearance</u>	<u>Horiz. Clearance</u>	<u>Survey No.</u>	<u>Remarks</u>
12' M.L.W.	106'	H-5581	Source of information not stated
6' H.W.	106'	T-6162a G.C.S.	Apparently meas. to H.W. mark.
12' M.L.W. <i>5.8</i>	98' - 97.8'	T-5122 Comp.	From U. S. E. at Savannah, Ga.

Mean range of tide 5.2'.

Lower value of 6' at H. W. Shown on comp. Horiz. clearance shown by leaving bridge open to exact width shown on photos.

Darien River Bridge

<u>Vert. Clearance</u>	<u>Horiz. Clearance</u>	<u>Survey No.</u>	<u>Remarks</u>
25.6' M.L.W.	106'	H-5581	Source of information not stated.
17.0'	106'	T-6162a G.C.S.	Apparently meas. to H. W. mark.
25.6' M.L.W. <i>5.2</i> <i>5.4</i>	80' - 80'	T-5122 comp.	From U. S. E. at Savannah, Ga.

Mean range of tide 7.3'.

Lower value of 17' at H. W. Shown on comp. Horiz. clearance shown by leaving bridge open to exact width shown on photos.

6. Remarks.

(a) The accuracy of 4 and 10 meters given on page 4 of the preceding report is high for work on this scale. A better estimate would be 0.3 to 0.5 mm. for intersected points and 0.3 to 1.0 mm. for other detail.

(b) The projection diagonals have been checked in this office and found correct. No further check was made during the review.

7. Comparison with Chart 1242.

No aids to navigation or landmarks are shown on that part of the present chart covered by this compilation and no new landmarks recommended by the Graphic Control Survey on this compilation.

L. C. Lande
B. G. Jones

May Hall Cr * (11/1/80 decision) →

Date. Aug 3, 1935

GEOGRAPHIC NAMES

Survey No. 5122

Chart No. _____

Diagram No. _____

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

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

Under investigation. Q

Status	Name on Survey	Name on Chart	New Names in local use	Names assigned by Field	Location
✓	<u>Pine I</u>	Chart 1242 T1080			Chart 574
✓	<u>Black I</u>	" " T1080			"
✓	<u>Snow Cr</u>	" " T1114			"
✓	<u>Mayhall Cr ?</u>	2 words chart 574 one word " " 1242 May Hall	My Hall on T1114 May Hall on H 964	One word. Darien Road.	U.S.E "
✓	<u>Long Reach</u>	"			"
✓	<u>Pico Cut</u>	" T1114			"
✓	<u>Generals Cut</u>	" T1114			"
✓	<u>Butler River</u>	" T1114			"
✓	<u>Butler I</u>	" T1114			"
✓	<u>Darien</u>	" T1114			"
✓	<u>Champney I</u>	" T1114			"
✓	<u>Wood Cut</u>	" T1114			"
✓	<u>Generals Island</u>	" T1114			"
✓	<u>Altamaha River</u>	" T1114			"
✓	<u>Darien River</u>	" T1114			"
✓	<u>Broughton Island</u>	" T1114			"
✓	<u>South Altamaha R</u>	" T1114			"
✓	<u>Wally's Leg</u>	? " H1146	(Cartwright Cr on T1114) Wally's Leg	Darien Road.	U.S.E
✓	<u>North and South Reach</u>	575			"
		remove "S"			
	111140 U.S.E				

GEOGRAPHIC NAMES

Survey No. 5122

Date. _____

Chart No. _____

Diagram No. _____

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

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

Under investigation. Q

Status	Name on Survey	Name on Chart	New Names in local use	Names assigned by Field	Location
	Buxton Creek ?	none delete	Darien Road	U.S.E.	
	Hampton Creek ?	" delete	"	✓ "	
	Briardam Road	"	"	"	✓
	Ridgeville	"	"	✓ "	chart 574
	Pumpkin Hammock	chart 574 T1080			✓ "
	North River	" " T1080			✓ "
	Buzzard Roost Cr.	" " T1080			✓ "
	Herd Island	" " T1080			✓ "
	River Road	none	Darien Road, U.S.E.	do	✓ "
	Lewis Creek	"	" " ✓	do	✓
	Rifle Cut	"	" " ✓	do	✓
	Reaphook Bend	"	" " ✓	do	✓
	Darien Creek	"	" " ✓	do	✓
	Middle River	"	" " ✓	do	✓
	Couper's River ?	"	" " ✓	do	✓
	Dents Creek	"	" " ✓	do	✓
	Friday Cap Creek ? (one word)	" T1114	" (Friday Cap Cr)	do	✓
	Broadfield	"	" " ✓	do	chart 574
	Shell Road	"	" " ✓		✓
	Old Soldier Creek	"	Everett City Road, U.S.E.	✓	✓
	Upper Old Soldier cr.	"	" ✓	"	✓
	Gambers Island ?	"	"	"	✓

Survey No. 5122

Chart No. _____

Under investigation. Q

M-136

REVIEW OF AIR PHOTO COMPILATION NO. 5122

Chief of Party: S.B. GREENELL

Compiled by: J.W. Griffith, Jr

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)
See Egners reports for changes of beacon positions - if any.
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)
Traverse.
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."

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 C.A. Egner and/or H.P. Odessey 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 C.A. Egner and/or H.P. Odessey, 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)

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. (*unadjusted*)

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 Longi- ✓
 tude 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;

March 29, 1935


Chief of Party

19. Remarks after review in office:

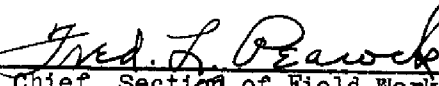
Reviewed in office by:


L. C. Lande ✓ *B. J. Jones*

Examined and approved:


Chief, Section of Field Records


Chief, Division of Charts


Chief, Section of Field Work


Chief, Division of Hydrography
and Topography.