

5571

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

AIRPHOTO
Topographic

Sheet No. 5571

~~Hydrographic~~

State North Carolina

LOCALITY

Albemarle Sound

Alligator River (Northern Part)

~~1936~~
Date of photograph Jan. 1935.

CHIEF OF PARTY

S. B. Grenell

Applied to chart 831 Nov. 3, 1936. H.M.C.

Applied to chart 1229, March 9, 1937. H.M.C.

Applied to chart 1228 - July 1949. E.B.X.

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. 5571

REGISTER NO. 5571

State North Carolina

General locality *Albemarle Sound*

Locality Alligator River *(Northern Part.)*

Scale Factor: 1.000 Aerial Photographs
Scale 1:20,000 Date of survey Fall of 1934

Vessel Airphoto Compilation Party # 18

Chief of party S. B. Grenell

Surveyed by Photographs- Army Air Corps

Inked by S. B. Grenell & J. A. Giles

Heights in feet above to ground to tops of trees

Contour, Approximate contour, Form line interval feet

Instructions dated December 14, 1934

Remarks:

Blueprint scale 1/20,000.

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. 5571

M-83 M-84 M-84	PHOTO NO. <u>1</u> <u>14</u> 62 BY	TO PHOTO NO. <u>10</u> <u>35</u> 83 START	FINISH
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ROUGH RADIAL PLOT	<u>F. B. Hickman</u>	<u>7-8-35</u>	<u>7-10-35</u>
SCALE FACTOR(1.00)	<u>F. B. Hickman</u>		<u>7-10-35</u>
SCALE FACTOR CHECKED	<u>S. B. Grenell</u>		<u>7-10-35</u>
PROJECTION	<u>Projection Machine, Washington Office</u>		
PROJECTION CHECKED	<u>F. B. Hickman</u>		<u>7-25-35</u>
CONTROL PLOTTED	<u>F. B. Hickman</u>	<u>7-25-35</u>	<u>7-26-35</u>
CONTROL CHECKED	<u>H. B. Riner</u>	<u>7-26-35</u>	<u>7-26-35</u>
TOPOGRAPHY TRANSFERRED	<u>none</u>		
TOPOGRAPHY CHECKED	<u>"</u>		
	<u>F. B. Hickman</u>	<u>7-29-35</u>	
SMOOTH RADIAL LINE PLOT	<u>J. C. Tison, Jr.</u>		<u>9-24-35</u>
RADIAL LINE PLOT CHECKED	<u>S. B. Grenell</u>		<u>9-25-35</u>
	<u>S. B. Grenell</u>	<u>10-4-35</u>	
DETAIL INKED	<u>J. A. Giles</u>		<u>2-20-36</u>

AREA DETAIL INKED 65.3 sq. Statute Miles (partly covered by note)

LENGTH OF SHORELINE OVER ²⁰⁰~~300~~ m. 60.4 Statute Miles

LENGTH OF SHORELINE UNDER ²⁰⁰~~300~~ m. - - - Statute Miles

GENERAL LOCATION Albemarle Sound

LOCATION Alligator River (Northern Part)

DATUM STATION FORT 1935 Latitude 35 - 56 - 40.461 (1247.1)

DATUM: N. A. 1927 Longitude 76 - 03 - 53.640 (1344.6)

Cypress Shoreline

On this compilation, where the shoreline is shown by the cypress symbol only, the ground is generally flooded.

The short sections of shoreline in cypress areas which are shown by the standard solid high water line are places where the ground is not flooded at high water.

There are often narrow strips of high ground bordering the shore and behind them the swamp is flooded.

The notes on the field inspection photos covering these sections of high water line on cypress are not complete and have been supplemented by the compiler's personal field examination. The chief of the compilation party in a discussion in this office has stated that these sections of firm ground as defined by the solid line have been inspected and drawn with considerable care. However, in using surveys of these cypress areas, consideration should be given to the fact that differences in ground elevation are slight. In such areas it is difficult to distinguish between ground generally flooded and ground above high water ^{as the change is often gradual and is not marked by a distinct line on the ground.}

The marsh in this area has been handled differently than the cypress. The solid high water line shown around the marsh indicates the edge of grass visible at mean high water and is not intended to indicate whether the ground is or is not covered at mean high water.

J. G. Jones
6/14/37

REPORT OF COMPILATION:

The radial plot of this compilation was begun by F. B. Hickman, surveyor, and later completed by J. C. Tison, Aid, after the party complement was reduced to two officers and one draftsman. All definite detail and a fringe of vegetation symbols bordering all detail was inked in by the writer. Later the blank areas were filled in with vegetation symbols by J. A. Giles, Draftsman.

In reviewing this compilation, special reference should be made to the General Report for Compilations 5567 to 5573 for general information about the country. *The general report for compilation 7-5571 is attached to Desc. Report T-5567.*

RADIAL LINE PLOT:

The plot was run through with less than the usual difficulty due to the ample control and the intersecting flight lines which gave ample cuts on all points. While compiling the sheet it was noted that the radial points checked unusually well.

The additional control established in the vicinity of Fort Landing and East Lake by R. P. Eyman, 1935 gave good control of all flights and rigidly held the definite detail along the shoreline.

Adjustment of Photographs:

The compilation was covered by photographs of three separate flights; one running east and west along the north edge of the land area and one running north and south down each side of the Alligator River. These flights intersected in the area of greatest detail and gave ample coverage of all shoreline. The prints were fairly clear and the multiple overlaps gave opportunity to ^{secure} true-scale prints for all definite detail.

The radial points were well selected and spaced and the adjustment between points was simple.

INTERPRETATION OF DETAIL:

Part of the shoreline is formed by the dense wall of cypress swamp and has been shown by a wavy, broken line. Part of the high water line is definite, being formed by a sand ridge or narrow beach or by a fringe of clean cut marsh growth between the cypress swamp and the open water. This latter has been shown by the conventional solid line although the area directly behind the H.W.L. may be flooded cypress swamp.

The heavily wooded areas are sometimes flooded swamp with a high percentage of cypress and some gum. This is particularly true along the smaller rivers and streams and near all open water except along Albemarle Sound where the shoreline has apparently eroded back to fast land. Other large areas farther inland have a higher percentage of pine and oak where the land is flooded at certain seasons of the year only.

A few fast land areas have been cleared and ditched and are under cultivation but most of the land is too low for agriculture. The ditched fields are plainly defined on the prints and have been shown by the conventional symbols. The main roads are shown with solid, double lines and the tributary roads by double, dashed lines although all of the roads are dirt and even the best ones are practically impassable in wet weather.

A ferry runs between the villages of Fort Landing and East Lake forming a connecting link between Roanoke Island and the mainland.

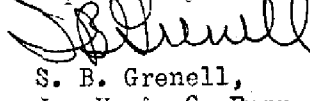
COMPARISON WITH CONTEMPORARY SURVEYS:

All junctions with adjoining compilations are complete and accurate. There were no field topographic sheets available for this section but some topography was done around triangulation stations by R. P. Eyman when he cut in his hydrographic control on aluminum-mounted sheets. (*Graphic control surveys T-6369a, T-6369b.*)

These small bits of shoreline were transferred by him to the smooth hydrographic sheets which were then sent to me for addition of the balance of the shoreline. This field topography checked the photo compilation in every case; which can be considered as a check on the accuracy of the compilation.

This compilation is complete in every way and requires no additional work in the area covered by the photographs.

Respectfully submitted,


S. B. Grenell,
Jr. H. & G. Engr.,
Chief of Party.

PLACE NAMES:

Charted Names:

- ALLIGATOR RIVER ✓
- EAST LAKE ✓
- SOUTH LAKE ✓
- BROAD CREEK ✓
- BRIERY HALL POINT ✓
- LAUREL POINT ✓
- EAST LAKE (Post Office) ✓
- LEWIS POINT ✓
- LONG SHOAL POINT ✓
- LITTLE ALLIGATOR RIVER ✓
- BUTTER ISLAND ✓
- GREAT ISLAND ✓
- FORT LANDING (Village) ✓
- ROCK POINT ✓
- SANDY POINT ✓
- ATKINS ISLAND ✓
- ~~LEWIS CREEK~~
- SECOND CREEK ✓
- SECOND CREEK POINT ✓

Well Established Local Names:

- SOUND POINT ✓
- LAKE POINT ✓
- BORANGES POINT ✓
- DEEP BAY ✓
- EAST LAKE LANDING ✓
- BUZZARD POINT ✓
- FLAG POINT ✓
- MILLER LANDING ✓
- CLUB ISLAND ✓
- SWAN CREEK ✓

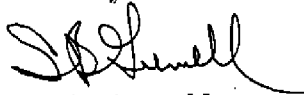
Local name not widely known:

- LAKE NEIGHBORHOOD ✓

Due to the limited time allowed for field inspection it was not possible to check the local usage of the list of "Charted Names" given above. As far as is known they are used as charted.

The list of local names was compiled by the field inspection party from information supplied by old residents and is believed to be complete and accurate.

Respectfully submitted,



S. B. Grenell,
Chief of Party.

Remarks

Decisions

	Remarks	Decisions
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9		
10		
11	CHARLES Is. is correct	5/2/36 Charles Island
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24	Islands outside present chart limits.	
25	So.	
26	So.	
27	but approved GOOSE POND Is. already accepted.	Goose Pond Id.

GEOGRAPHIC NAMES

Survey No. 5571

Name on Survey	Source of Name									
	A	B	C	D	E	F	G	H	K	
	On Chart No.	On previous survey No.	On U. S. quadrangle Maps	From local information	On local Maps	P. O. Guide or Map	Rand McNally Atlas	U. S. Light List		
<u>Alligator River</u> ✓	1228									1
<u>East Lake</u> ✓	1228									2
<u>South Lake</u> ✓	1228									3
<u>Broad Creek</u> ✓	1228									4
<u>Briery Hall Point</u> ✓	1228									5
<u>Laurel Point</u> ✓	1228									6
<u>East Lake</u> ✓	1228									7
<u>Lewis Point</u> ✓	1228									8
<u>Long Shoal Point</u> ✓	1228									9
<u>Little Alligator River</u> ✓	1228									10
Butler ^{CHARLES ISLAND S.O.K.} ✓	1228									11
<u>Great Island</u> ✓	1228									12
<u>Fort Landing</u> ✓	1228									13
<u>Rock Point</u> ✓	1228									14
<u>Sandy Point</u> ✓	1228									15
<u>Atkins Island</u> ✓ ^{5/4/36} Atkins										16
<u>Second Creek</u> ✓	1228									17
<u>Second Creek Point</u> ✓	1228									18
<u>Sound Point</u> ✓					✓					19
<u>Lake Point</u> ✓					✓					20
<u>Boranges Point</u> ✓					✓					21
<u>Deep Bay</u> ✓					✓					22
<u>East Lake Landing</u> ✓					✓					23
<u>Buzzard Point</u> ✓					✓					24
<u>Flag Point</u> ✓					✓					25
<u>Miller Landing</u> ✓					✓					26
Club Island ✓ ^{Goose Pond lg}					✓					27

Names underlined in red approved by Chapman on 3/26/36

~~Atkins~~ 5/4/36

Remarks

Decisions

	Remarks	Decisions
1	Not approved. Another Swan creek near by	
2	Approved for photo compilation only. <i>J.H. 5/4/36</i>	
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GEOGRAPHIC NAMES

Survey No.

Name on Survey											
	A	B	C	D	E	F	G	H	K		
Swan Creek ?											1
Lake Neighborhood Lake Neighborhood											2
Mill Point Island.											3
Goose Pond. ^{5/4/36} <i>[Signature]</i>											4
Durant Island. ^{5/4/36} <i>[Signature]</i>											5
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Names underlined in field approved
 by *[Signature]* on 2/26/36

REVIEW OF AIR PHOTO COMPILATION T 5571 (1935)
Scale 1:20,000

Comparison with Graphic Control Surveys

T 6369a (1935), 1:20,000

There are no discrepancies between T 6369a and this compilation. Filing, stumps, duck blinds, foul lines, recoverable described stations ANT and FUL, stations S. Gable Club House and N. Gable Boat House near Long Shoal Pt., and the wooden tripod offshore at Lewis Point have been transferred in this office by L.A.M., *Cam.* checked by R.M.B. All detail on T 6369a is shown on this compilation except non-recoverable plane table positions, short sections of swamp high water lines and the magnetic declination.

T 6369b (1935), 1:20,000

There are no discrepancies between T 6369b and this compilation. The foul line at Second Creek Point has been transferred in this office. With the exception of a section of swamp high water line at Second Creek Pt., non-recoverable plane table stations and the magnetic declination, all detail on T 6369b is shown on this compilation.

Comparison with Previous Topographic Surveys

Comparison with the following old surveys shows that this compilation is complete and adequate to supersede the areas of these surveys which it covers.

T 246 (1848), 1:20,000

T 284 (1849), 1:20,000

T 293 (1849), 1:20,000

T 825 (1861), 1:20,000

T 3436 (1914), 1:20,000.

The survey for T 3436 covers the Alligator River between Albemarle Sound and Cypress Point. No large changes have occurred since survey T 3436 was made. The pier at East Lake is now in ruins. Portions of the log pound shown on T 3436 at $35^{\circ} 54.8'$, $75^{\circ} 57.1'$ are in existence at this time but they cannot be located from the photographs and have not been shown on the new plane table survey of this area, T 6369a. (See field photo. (M-84)22, A print.) T 3436 is superseded by this compilation over the common area.

T 3493 (1915), 1:40,000.

The survey for T 3493 covers a portion of the shoreline of Albemarle Sound at Lewis Point and at Flatty Creek. The Cypress trees shown on T 3493 outside the high water line cannot be seen on the photographs. This area west of $76^{\circ} 04'$ is not covered by the graphic control surveys and consequently these trees, if they are still in existence, have not been shown. The two offshore buildings appearing

on T 3493 at $35^{\circ} 59.4'$, $76^{\circ} 04'$ are not shown on this compilation. They have not been recovered by the field inspection party and cannot be seen on the photographs and are gone except for the possible existence of piling remains. T 3493 is superseded by this compilation over the area of it which the compilation covers.

T 3538 (1915), 1:40,000

Only a small portion of this compilation on Durant Island is common to the survey T 3538. There have been no large changes over this area. T 3538 is superseded by this compilation over the area of it which the compilation covers.

Comparison with charts Nos. 3252, 1228

The report for this compilation does not mention landmarks. The list of landmarks and non-floating aids to navigation covering this compilation is attached to the descriptive reports T 6369a and T 6369b.

The numbers of the lights in the channel of the Alligator River have been changed since their positions were determined by triangulation. According to information furnished by the U. S. Lighthouse Service the positions have not been changed. The new numbers are shown on the compilation after the station names. The changes of numbers have been reported in Notice to Mariners, Jan. 1936, but the new numbers are not shown in the Light List for 1936.

The road system shown on chart 1228 between Lewis Point and Long Shoal Point has been changed. The house at $35^{\circ} 58.5'$, $76^{\circ} 02'$ is no longer in existence. Other changes to be made to this chart are discussed above under the comparisons with T 3436 and T 3493.

The following triangulation stations, described and marked, have been plotted on this compilation in this office by ^{L.A.M.} L.A.M. and checked by R.M.B. Stations established by R. P. Eymann in 1935.

Triangulation Stations ^{MOON.} ~~MOON~~, DUR, and SHINE .

West of $76^{\circ} 04'$ no graphic control surveys have been made. Along the shores of Little Alligator River in this area there are many small details such as piles and a wreck. Wherever possible these piles have been located from the field inspection. In some cases the positions of the details have been encircled only approximately on the field photos. These have not been shown but have been mentioned below.

The piles at $35^{\circ} 56.1'$, $76^{\circ} 06.2'$ were located from field inspection by an estimated distance of 70 meters from shore and the position is approximate only.

The piles at $35^{\circ} 55.2'$, $76^{\circ} 03'$ were located from field inspection by an estimated distance of 200 meters from shore and their position is approximate only.

The piles at the bridge crossing Little Alligator River at long. $76^{\circ} 07.7'$ were located from the field photos.

The piles at $35^{\circ} 55.9'$, $76^{\circ} 08'$ were located from the field photos.

There are piles at $35^{\circ} 55.5'$, $76^{\circ} 05.3'$, at $35^{\circ} 54.8'$, $76^{\circ} 03.8'$ and a wreck at $35^{\circ} 55.4'$, $76^{\circ} 05'$ which cannot be spotted on the photographs and have not been indicated by field inspection with sufficient accuracy for even approximate plotting on the compilation.

There is a group of piles not shown on this compilation at $35^{\circ} 54.8'$, $75^{\circ} 57.1'$ which cannot be seen on the photographs, have not been located by the graphic control survey of this area nor by field inspection with sufficient accuracy for approximate plotting on the compilation. (Field photo No. (M-84)22, A print.)

The report for this compilation does not mention the probable accuracy of location. In view of the good coverage by the photos and the abundance of ground control this compilation is estimated to have a probable error of plotting from 0.5 to 1.0 mm. for intersected points and from 0.8 to 1.5 mm. for points between intersections.

April 20, 1936.

Lemard A. McSauer
B.G. Jones

REVIEW OF AIR PHOTO COMPILATION NO. 5571

Chief of Party:

S. B. Grenell

Compiled by: S. B. Grenell

Project:

Party # 18

Instructions dated: Dec. 14, 1934

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) ✓
Data furnished by survey of R. P. Eyman, 1935.
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) ✓
*Graphic Control Surveys T-6369a, T-6369b cover this area. ✓
Fau.*
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. 26) ✓
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~~ ^{cypress} coast is clear and adequate for chart compilation. (Par. 16a, 43, and 44) ✓
See descriptive report page 1. for discussion of HWL on cypress swamp coast.

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)~~ *None shown.* ✓
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) *Recoverable described stations have been transferred from T-63696 under which number they are filed.* ✓
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) *See report by R. P. Eymon, 1935 for T-63690, T-63696.* ✓
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)~~ *None* ✓
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;

Jan 30, 1936

J. B. Bennett
Chief of Party

19. Remarks after review in office:

Reviewed in office by: *Leonard A. McKean April 20, 1936.*
W. J. Jones

Examined and approved:

E. H. Green
Chief, Section of Field Records

K. T. Adams
Acting Chief, Division of Charts

Fred. L. Peacock
Chief, Section of Field Work

Office
Acting Chief, Division of Hydrography
and Topography.