

5572

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
~~Hydrographic~~

Sheet No. 5572

State North Carolina

LOCALITY
CROATAN SOUND
~~Albemarle Sound~~

East Lake

~~1935~~
Date of photos Jan 2, 1935

CHIEF OF PARTY

S. B. Grenell

U. S. GOVERNMENT PRINTING OFFICE: 1934

5572

add note
marsh andypress

Applied to chart 1229 March 3, 1937 J.H.L.
applied to chart 1228 July 1949 E.B.H.

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. 5572

REGISTER NO. 5572

State North Carolina

General locality CROATAN
Abbeville Sound

Locality East Lake

Scale 1:20,000 Date of survey Jan. 2, 1935
Scale factor 1.000

Vessel Airphoto Compilation Party # 18

Chief of party S. B. Grenell

Surveyed by Aerial Photographs (Army Air Corps)

Inked by J. A. Giles, Draftsman

Heights in feet above _____ to ground to tops of trees

Contour, Approximate contour, Form line interval _____ feet

Instructions dated December 14, 1934, 19

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. 5572

M-84
PHOTO NO. 34 TO PHOTO NO. 63

	BY	START	FINISH
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>W. H. Bates</u>		<u>7-30-35</u>
CONTROL PLOTTED	<u>W. H. Bates</u>		<u>7-30-35</u>
CONTROL CHECKED	<u>F. B. Hickman</u>	<u>7-31-35</u>	<u>7-31-35</u>
TOPOGRAPHY TRANSFERRED	<u>none</u>		
TOPOGRAPHY CHECKED	<u>"</u>		
SMOOTH RADIAL LINE PLOT	<u>F. B. Hickman</u>	<u>7-31-35</u>	
	<u>J. C. Tison, Jr.</u>		<u>8-27-35</u>
RADIAL LINE PLOT CHECKED	<u>S. B. Grenell</u>		<u>8-28-35</u>
DETAIL INKED	<u>J. A. Giles</u>	<u>1-2-36</u>	<u>2-7-36</u>

AREA DETAIL INKED 42.8 sq. Statute Miles
 LENGTH OF SHORELINE OVER 200 m. 49.5 Statute Miles
 LENGTH OF SHORELINE UNDER 200 m. 10.2 Statute Miles

GENERAL LOCATION North Carolina **CROATAN**
Albemarle Sound
 LOCATION East Lake

DATUM STATION MASHOE 1933 Latitude 35 - 57 - 31.412 (968.1 m.)
 Longitude 75 - 48 - 36.074 (904.0 m.)
 N.A. 1927 Datum (adjusted)

REPORT OF COMPILATION NO. 5572
NORTH CAROLINA, 1935-6

REFERENCE:

In reviewing this compilation in the Washington office, reference should be made to the General Report for Compilations 5567 to 5573; for reference to control, field inspection, general topography, etc. *This general report is attached to Desc. Report for T-5567.*

FIELD INSPECTION:

The field inspection in this area was carried on by two men from the compilation party working with the combined operations party of Commander R. P. Eymann and living aboard the "NATOMA" which was used as a quarter boat. The inspection unit used a small, leased launch which was not very seaworthy and due to bad weather and limited time they were able to spend two days only along the Croatan Sound shore, which enabled them to tie in the control stations but left little time for them to tie in or notate other features of importance.

RADIAL LINE PLOT:

The radial plot was run through roughly by F. B. Hickman, Surveyor, before the party complement was reduced and was later completed by Ensign J. C. Tison, Jr.

There are two flights crossing the compilation from east to west. The northern flight was fairly well controlled by the triangulation along Albemarle and Croatan Sounds but the southern flight was held on the ends only; on the east by the stations in and around the shore of Croatan Sound and on the west by a tie-in with the north and south flight along the east shore of Alligator River on compilation 5571. The usual difficulty was experienced with distorted photographs but the plot was worked over several times until the common points smoothed in with adjoining flights and all control held. The accuracy of the plot is up to the standard for this project.

The section of the south flight south of the "B" prints had no control at all, and, since the wings were out in azimuth on some prints at least, the compilation was carried to the inner wing sections only to include the highway which crosses the compilation from east to west. The area south of the highway contains no definite detail.

Refer to pages 5 to 8a, report for compilation T-5550 for a discussion of camera errors in this area and the need for more than the usual amount of ground control.

ADJUSTMENT OF PHOTOGRAPHS:

The two, overlapping flights furnished sufficient 'coverage' so that all definite detail could be secured from true-scale, untilted prints by carefully selecting photographs for each particular area. The definite detail along Croatan Sound south of Fleetwood Point is beyond the area of good control but it was possible to compile this area because there were several true-scale prints covering this section. Several additional points were 'interlaced' along the shoreline as a check on the radial point locations. (*'interlaced' or interpolated*).

*F. Ann.
4/22/36.*

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 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.

B G Jones
6/24/37

INTERPRETATION OF DETAIL:

As explained in a preceding paragraph, the field notes were incomplete but the photographs were generally clear and definite details such as roads, ditches, houses, etc., were well defined. Most of the larger swamp areas are very dense and contain no definite detail. This swamp is composed of a mixed growth mostly gum. oak and various deciduous varieties with cypress along the streams and in the low areas and considerable pine on the higher levels further inland. The entire area is very low; the fast land areas being a few feet only above the water level. There is very little agriculture in this area; the principal industry of the towns of MANN'S HARBOR and MASHOES is fishing. A ferry to MANTEO, the county seat of Dare county on Roanoke Island, leaves from the dock at the end of the highway at MANN'S HARBOR.

COMPARISON WITH CONTEMPORARY SURVEYS:

The junction with compilation 5571 on the west is complete and accurate. There are no recent planetable or hydrographic surveys of this area for comparison.

CHART CORRECTION:

The current charts show a small islet in the mouth of TOM MANN CREEK called DOG ISLAND. There is no evidence on the photographs of such an island. The shoreline along this section, as indicated by tall trees on the H.W.L., is receding and it is the belief of the writer that DOG ISLAND has been completely washed away.

PLACE NAMES:

Charted names:

SOUTH LAKE ✓
EAST LAKE ✓
LONG POINT ✓
TOM MANN CREEK ✓
HAULOVER POINT ✓
CAROOM POINT ✓
MASHOES (village) ✓
PETER MASHOES CREEK ✓
MANN'S HARBOR (village) ✓
REDSTONE POINT ✓
FLEETWOOD POINT ✓
DURANT ISLAND ✓
ALBEMARLE SOUND ✓
CROATAN SOUND ✓

Well established local names:

DEER CREEK ✓
HOOKER GUT ✓
NORTH EAST PRONG ✓
LIEHUE GUT ✓
NEED BEES POINT ✓
REEDS POINT ✓

Respectfully submitted,

S. B. Grenell
S. B. Grenell
Chief of Party.

Remarks

Decisions

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GEOGRAPHIC NAMES

Survey No. T-5572.

Name on Survey	Source of Name										
	A	B	C	D	E	F	G	H	K		
<u>South Lake</u>	1229										1
<u>East Lake</u>	1229										2
<u>Long Point</u>	1229										3
<u>Tom Mann Creek</u>	1229										4
<u>Haulover Point</u>	1229										5
<u>Caroon Point</u>	1229										6
<u>Mashoes</u>	1229										7
<u>Peter Mashoes Creek</u>	1229										8
<u>Manns Harbor</u>	1229										9
<u>Redstone Point</u>	1229										10
<u>Fleetwood Point</u>	1229										11
<u>Durant Island</u>	1229										12
<u>Albemarle Sound</u>	1229										13
<u>Croatan Sound</u>	1229										14
<u>Deer Creek</u>	1229				✓						15
<u>Hooker Gut</u>					✓						16
<u>Northeast Prong</u>					✓						17
<u>Liehue Gut</u>					✓						18
<u>Ned Bees Point</u>					✓						19
<u>Reeds Point</u>					✓						20
											21
											22
											23
											24
											25
											26
											27

Names underlined in red approved
 by *G. E. [Signature]* on 3/27/36

REVIEW OF AIR PHOTO COMPILATION T 5572 (1935)
Scale 1:20,000

Comparison with Previous Topographic Surveys

Comparison with the following old topographic surveys shows that this compilation is complete and adequate in order to supersede the portions of those surveys which it covers:

T 293 (1849), 1:20,000
T 825 (1861), "
T 933 (1864), "

T 2952 (1909), 1:20,000

The survey for T 2952 covers the shoreline from Redstone Point to Roanoke Marshes. There have been changes as much as 60 meters of position of high water line since time of survey T 2952. At present the shoreline is eroding. T 2952 is superseded by this compilation over the common area.

T 3538 (1915), 1:40,000

The survey for T 3538 covers a large area in the vicinity of Croatan and Roanoke Sounds. The island called Dog Island at $35^{\circ} 58.6'$, $76^{\circ} 53.2'$ is no longer in existence. The vegetation shown outside the high water line on T 3538 cannot be seen on the photographs and is probably gone. The pier in Manns Harbor as well as the pier to the north of Manns Harbor are gone. T 3538 is superseded by this compilation over the common area.

There are no graphic control surveys for this compilation nor new hydrographic surveys of this area.

Comparison with Charts Nos. 1228, 1229

The report for this compilation does not mention landmarks. From an inspection of the photographs it is not known if there are any landmarks in this area other than the non-floating aids to navigation.

The Manns Harbor Canal light shown on chart 1229 is not shown on this compilation. Evidently this light is too small to be identified on the photographs by the field inspection party and cannot be seen on the photographs in this office.

Dog Island at the entrance to Tom Mann Creek is no longer in existence.

The small pier at Caroon Point, south of Redstone Point, south of Fleetwood Point and at Manns Harbor are gone.

No high water line is shown around swamps which border on the bodies of water of this area where the high waters extend back into the trees. The high water line is indefinite in these places and cannot be accurately located. The method of representing by means of the tree symbol is in accordance with instructions given to the field party doing this work.

The report for this compilation does not mention the probable accuracy of location. The most accurate locations are along the coast of Croatan Sound; the weakest in the vicinity of South Lake and the southern border of the compilation. There is adequate coverage and overlap of the photographs. The error of plotting is estimated to be from 0.5 to 1.0 mm. for intersected points and from 0.8 to 1.5 mm. for points between intersections. These values may be exceeded somewhat in the area south of latitude $35^{\circ} 53'$.

April 22, 1936.

Leonard A. Mulsanne
W.B. Jones

REVIEW OF AIR PHOTO COMPILATION NO. 5572

Chief of Party: S. B. GRENELL

Compiled by: J. A. Giles

Project: Party #18

Instructions dated: 12-14-34

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) ✓
Field inspection too limited to note changes - see report "Field Inspection"
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 graphic control surveys for this compilation in this locality.
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 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. ✓
No contemporaneous plane table or hydrographic surveys.
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) ✓
See review for discussion of low line on cypress 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." 11-27

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)~~
No data for Form 524 / No recoverable objects sent in ✓
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)
No data for form 567 as there were no ground surveys in this area. See preceding review for discussion ✓
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 except fixed wooden structures over drainage canals ✓
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. ✓

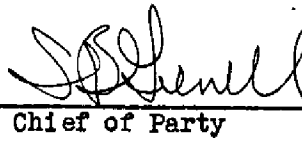
3. All station points are exactly marked by fine black dots. ✓
4. Closely spaced lines are drawn sharp and clear for printing. ✓
5. Topographic symbols for similar features are of uniform weight. ✓
6. All drawing has been retouched where partially rubbed off. ✓
7. Buildings are drawn with clear straight 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; 2-11-36



Chief of Party

19. Remarks after review in office:


Reviewed in office by: Leonard C. McLean April 22, 1936.
W. G. Jones

Examined and approved:


Chief, Section of Field Records


Acting Chief, Division of Charts


Chief, Section of Field Work


Chief, Division of Hydrography and Topography.