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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. 5564

State North Carolina

LOCALITY

Neuse River

Broad Creek

~~1933~~
Date of photos Oct. 1934

CHIEF OF PARTY

S. B. Grenell

U. S. GOVERNMENT PRINTING OFFICE: 1934

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Applied to chart No. 832 Jan 21, 1937 R.L.J.
Applied to Chart Comp 538 April 28, 1937 H.E.M.

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. 5564

REGISTER NO. 5564

State North Carolina

General locality Neuse River

Locality Broad Creek

Scale 1:10,000^{*} Date of survey June-December, 1935

Vessel Airphoto Compilation Party # 18

Chief of party S. B. Grenell

Surveyed by Aerial Photographs

Inked by C. E. Helfrich and W. C. Oliver

Heights in feet above - - - to ground to tops of trees

Contour, Approximate contour, Form line interval - - - feet

Instructions dated December 14, 1934

Remarks:

* Black and white contact print
on scale 1:9700

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. 5564
 PHOTO NO. 52 TO PHOTO NO. 66

	BY	START	FINISH
ROUGH RADIAL PLOT	<u>J. W. Griffith</u>	<u>5/19/35</u>	<u>5/19/35</u>
SCALE FACTOR (1.03)	<u>J. W. Griffith</u>	"	"
SCALE FACTOR CHECKED	<u>S. B. Sewell</u>	"	"
PROJECTION	<u>A. M. Gumber</u>	<u>5/28/35</u>	<u>5/28/35</u>
PROJECTION CHECKED	<u>S. B. Sewell</u>		<u>5/28/35</u>
CONTROL PLOTTED	<u>F. B. Hickman</u>	<u>5/29/35</u>	<u>5/29/35</u>
CONTROL CHECKED	<u>S. B. Sewell</u>		<u>5/29/35</u>
TOPOGRAPHY TRANSFERRED			
TOPOGRAPHY CHECKED			
SMOOTH RADIAL LINE PLOT	<u>F. B. Hickman</u>	<u>5/29/35</u>	<u>6/14/35</u>
RADIAL LINE PLOT CHECKED	<u>S. B. Sewell</u>		<u>6/14/35</u>
DETAIL INKED	<u>W. C. Oliver</u>		<u>11/27/35</u>

AREA DETAIL INKED 28.2 sq. Statute Miles
 LENGTH OF SHORELINE OVER 200 m. 9.4 Statute Miles
 LENGTH OF SHORELINE UNDER 200 m. 9.8 Statute Miles

GENERAL LOCATION North Carolina, Neuse River
 LOCATION Broad Creek

DATUM STATION GILLIAM 1935 Latitude 35° 05' 05.19" (160.0 m)
N.A. 1927 Datum Longitude 76 39 53.43 (1353.5 m)
 unadjusted.

REPORT OF COMPILATION *

This compilation was begun by C.E.Helfrich and completed later by W. C. Oliver. This report is being written by the chief of party from notes made by the compilers.

RADIAL LINE PLOT:-

The radial line plot was run through by the standard method and all of the triangulation stations held the plot with the exception of GUM2 which was slightly off on most prints. This was apparently due to weak location due to indefinite ties. The balance of the control was so spaced as to hold the plot in this area and the checks between common points of adjoining flights was satisfactory.

The usual trouble was encountered with distorted wing prints (see special report for this project) so two traverses were run along highways† (Pierce to Sanders and Merritt to Harper) to furnish additional control. All adjoining compilations have the same scale factor and the radial plots were run through continuously by securing the sheets together.

ADJUSTMENT OF PHOTOGRAPHS:-

As a whole, the radial points were well selected and spaced and seemed to be accurately located. The photographs were fair as to scale variation and tilt and no unusual difficulty was found in adjusting for detail. When radial points were too widely spaced or seemed to be in error, the interlacing method was used to check the location of important detail.

INTERPRETATION:-

The photographs on this compilation were generally very clear and the definite detail well defined. The ditch systems shown are accurate locations of actual ditches. This section is famous for the large yield of potatoes from these low, flat fields.

The field party carefully noted the percentages of pine and deciduous growth in the heavily wooded areas and these percentages have been indicated as closely as possible by appropriate symbol distribution. There is the main line of an abandoned tram-road crossing the compilation which has been shown by a combination of sand dots and brush symbols to denote a low embankment partially brush grown. The road has been long abandoned and the rails removed but the embankment and ditches on either side still remain as a topographical feature. These old tram road beds are often used for new highways, hence their importance. The centers of large, heavily wooded areas have been left blank with proper notes given on the overlay sheet. Other large areas filled in with scattering tree symbols indicate areas partly denuded of forest by fires or logging operations.

* Refer to compilation report for T-5550 for a general report of this area.

† That portion of the traverse "Pierce to Saunders" from Gilliam to Saunders was not used to control the plot as the closure of 5.5 meters was too large. between these latter stations. The traverse from A Pierce to Gilliam had a closure of 1.5 m which was satisfactory.

COMPARISON WITH CONTEMPORARY SURVEYS:-

All junctions with adjoining compilations are complete and accurate in every detail. There were no field topographic sheets of recent surveys in the area covered by this compilation.

ACCURACY AND COMPLETENESS:*

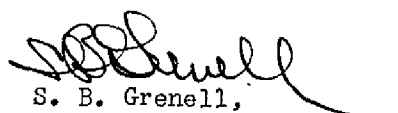
The area covered by this compilation is complete in every detail as nearly as can be determined from the photographs. It is believed that the error in well defined detail in no place exceeds 10 meters. The error in less well defined detail does not exceed 20 meters.

PLACE NAMES:-

Legend:- W.E., well established local name; L.N., local name known over a relatively small area only; O.S., appearing on old survey sheets; Charted, on current issues of charts.

<u>BROAD CREEK</u>	Charted (T1073)
<u>BUXTON CREEK</u>	W. E. (T1079)
<u>PASTURE CREEK</u>	W. E.
<u>WHORTONSVILLE</u>	Post Office here
<u>BROWN CREEK</u>	Charted (T1073)
<u>SPICE CREEK</u>	L. N.
<u>FORK POINT</u>	W. E.
<u>SHIP CREEK</u>	W. E.
<u>HAMILTON POINT</u>	L. N.
<u>PAMLICO</u>	formerly called BLYTHE PT. Post Office here
<u>GITTING CREEK</u>	Charted (T1073)
<u>BULAH POINT</u>	W. E.
<u>TAR CREEK</u>	Charted (T1073)
<u>GRACE POINT</u>	W. E.
<u>THOMAS CREEK</u>	W. E.
<u>RATTLESNAKE BRANCH</u>	L. N.
<u>SKATE POINT</u>	W. E.
<u>Merritt</u>	P. O.
<u>Trent River</u>	
<u>Spring Creek</u>	
NEUSE RIVER	

Respectfully submitted,


S. B. Grenell,
Chief of Party.

Names underlined in red approved
by K.T. A on 1/13/36

Photographs.

Photos. No	Time	Date	Tide.
(M-79) 112 to (M-79) 128	unknown	Oct. 1934	No periodic tide
(M-79) 52 to (M-79) 65	unknown	Oct. 1934	No periodic tide.

T-3823 (1920) 1/20,000. Survey T-3823 shows shoreline only between Mow Point and the town of Oriental on the north side of the Neuse River as well as the shoreline on the south side in the vicinity of South River. Over the common area there have been no large changes since the time of T-3823. T-3823 is superseded by this compilation over this area.

Ram.

8/8/36.

REVIEW OF AIR PHOTO COMPILATION NO. T-5564 (1934)

Scale 1:10,000.

Comparison with Previous Topographic Surveys.

T-1073 (1868) 1:20,000. Survey T-1073 covers a portion of Neuse River in this vicinity. New roads have been built and new areas have been cleared for farming since the time Survey T-1073 was made. Other farms shown on T-1073 have been abandoned. Most of the buildings shown on T-1073 have been removed or destroyed since 1868. Shoreline changes have been comparatively small. This compilation is complete and adequate in order to supersede T-1073 over the common area.

T-3823 (1920) 1:20,000 See opp. page.

There are no graphic control surveys of this area.

Comparison with New Hydrographic Surveys.

H-5903 (1935), H-5904 (1935) 1:10,000. There are no conflicts between the hydrography of H-5903, H-5904, and the shoreline of this compilation over the respective common areas. The only common areas are the small portions of Trent River and Spring Creek at the northern border of this compilation.

Comparison with the Charts.

Charts No. 538, 1231, 3253. The report for this compilation does not mention landmarks. From an office inspection of the photographs it appears that there are no prominent objects in this area. The field inspection party did not recommend any landmarks here.

The buildings shown on these charts in this area have for the most part been removed or destroyed, since the last revisions of cultural detail on them. The buildings shown on this compilation have been verified in this office.

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. Additional control in the form of two traverses along highways were run in order to supplement the triangulation control. (See page 1 of the preceding descriptive report). The traversed points have not been marked and are not recoverable in the field. They will not occur on the printed copies of this compilation. The points are marked, however, on the celluloid copy and on the mounted office set of photographs.

The control is adequate in order to support the estimate of accuracy of 10 to 20 meters given on page 2.

June 24, 1936.

Leonard A. McNamee
L.A. McNamee

V. B. Jones

REVIEW OF AIR PHOTO COMPILATION NO. 5564

Chief of Party: S. B. Greene II

Compiled by: C. E. Helprich
W. C. Oliver

Project: F.P. 76 - 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) *No important changes noted.*
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) *Additional traverse for control*
No graphic control surveys for this area.
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*
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 contemporary plane table surveys*
No contemporary 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) ✓
No sand beach in this area.

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)~~ ✓
No recoverable objects listed.
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 not submitted
See chart letter 199 of 1936 for landmarks.
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 in this area
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;

Dec. 17, 1935

S. B. Dunell
Chief of Party

19. Remarks after review in office:

Reviewed in office by: Leonard A. McGann June 24, 1936.
L. A. McGann *W. B. Jones*

Examined and approved:

E. K. Green
Chief, Section of Field Records

L. O. Dolbert
Chief, Division of Charts

Fred. C. Peacock
Chief, Section of Field Work

J. H. Hude
Chief, Division of Hydrography
and Topography.