

5565

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

DESCRIPTIVE REPORT

Airphoto
Topographic } Sheet No. 5565
~~Hydrographic~~

State North Carolina

LOCALITY

Neuse River

Oriental and Vicinity

~~1935~~
Date of photos Oct. 1934.

CHIEF OF PARTY

S. B. Grenall

Applied to chart 833 Sept 17, 1936 H.H.C.
Applied to Chart Comp 538 April 30, 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. 5565 **T5565**

REGISTER NO. 5565

State North Carolina

General locality Neuse River

Locality Oriental and vicinity

Factor: 1.03 * Compiled: 1/14/34

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

Vessel Airphoto Compilation Party # 18

Chief of party S. B. Grenell *S. B. Grenell*

Surveyed by Aerial Photographs

Inked by D. B. Gaines & 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: _____

* *Scale Black and White line print is 1/9708.*

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. 5565

M-79 65 71
 PHOTO NO. 98 TO PHOTO NO. 112

	BY	START	FINISH
ROUGH RADIAL PLOT	<u>J. J. Griffith</u>	<u>5/19/35</u>	<u>5/19/35</u>
SCALE FACTOR(1.03)	<u>"</u>	<u>"</u>	<u>"</u>
SCALE FACTOR CHECKED	<u>S. B. Grenell</u>	<u>"</u>	<u>"</u>
PROJECTION	<u>A. M. Gruber</u>	<u>6/5/35</u>	<u>6/5/35</u>
PROJECTION CHECKED	<u>S. B. Grenell.</u>	<u>"</u>	<u>"</u>
CONTROL PLOTTED	<u>A. M. Gruber</u>	<u>"</u>	<u>"</u>
CONTROL CHECKED	<u>J. Tassopoulos</u>	<u>"</u>	<u>"</u>
TOPOGRAPHY TRANSFERRED	<u>- - -</u>		
TOPOGRAPHY CHECKED	<u>- - -</u>		
SMOOTH RADIAL LINE PLOT	<u>F. B. Hickman</u>	<u>6/6/35</u>	<u>6/14/35</u>
RADIAL LINE PLOT CHECKED	<u>S. B. Grenell</u>		<u>"</u>
DETAIL INKED	<u>D. B. Gaines</u> <u>W. C. Oliver</u>	<u>6/18/35</u>	<u>12/18/35</u>
AREA DETAIL INKED	<u>15.1</u>	sq. Statute Miles	
LENGTH OF SHORELINE OVER ²⁰⁰ 300 m.	<u>12.9</u>	Statute Miles	
LENGTH OF SHORELINE UNDER ²⁰⁰ 300 m.	<u>17.7</u>	Statute Miles	
GENERAL LOCATION	<u>North Carolina - Neuse River</u>		
LOCATION	<u>Oriental</u>		
DATUM STATION	<u>HARPER 1935</u>	Latitude	<u>35-02-59.55 (1835.2m)</u>
	<u>Datum: N.A.- 1927</u>	Longitude	<u>76-42-37.31 (945.6m)</u> <i>(unadjusted.)</i>

REPORT OF COMPILATION:-

This compilation was begun by D. B. Gaines and later completed by W. C. Oliver. The report is being written by the chief of party from notes made by the compilers.
See the general report covering this compilation attached to Descriptive Report T-5550.

RADIAL LINE PLOT:-

The radial plot was run through in the usual manner by securing the one adjoining compilation (5564) to the projection and running the photo flights through the junction. All of the control held with the exception of station PIERCE, which was evidently tied-in wrong on the prints. In order to secure additional control as a check in this area, a traverse was run from PIERCE to GILLIAM (5564) along the highway. The traverse stations held the plot but station PIERCE never held - even after new ties were selected on the prints. There were no definite points near the station for ties. There is another section of traverse on the compilation from HARPER to MERRITT (5564). With this additional control the plot held perfectly and the agreement between common points of adjoining flights was satisfactory.

There was no particular difficulty in running the plot except the usual trouble encountered in all plots on this project - see discussion in Special Report relative to photo distortion in scale and wing azimuth.

ADJUSTMENT OF PHOTOGRAPHS:-

The mean scale of the photographs, as found by the scale plot, gave a mean scale factor of 1.03 for the compilation. However, many of the photographs were badly tilted and varied considerably in scale, suggesting that possibly the pilot was having difficulty in holding his altitude during the flight. This was particularly true of the flight M-79, 98 to 112. In compiling the greater portion of this sheet it was necessary to interlace between radial points to get sufficient control for adjustment of detail. The radial points were sufficiently closely spaced for ordinary compilation from even-scale prints.

INTERPRETATION OF DETAIL:-

The prints of this area are unusually clear and the detail easy to identify. Special care has been taken to locate as accurately as possible all definite detail such as roads, ditches, houses, etc. Adequate field notes aided in the interpretation of less well-defined detail such as logged over forest, indefinite marsh borders, etc. All detail on the compilation is shown clearly by conventional symbol or explanatory notes have been made on the overlay sheet.

Note This method has been used
for small areas on several occasions
and has proved satisfactory. It
is applicable to any combined
operations project on which photo.
compilation can be started ahead
of Hydrography and would result
in considerable savings in planable
work p. 29.

COMPARISON WITH CONTEMPORARY SURVEYS:-

Shortly after the shoreline detail of this compilation was completed, a hydrographic party from the MIKAWA, J. A. Bond, commanding, commenced work around Oriental. They put in their signals for the control of hydrography, and, working with a field man from this party, spotted them on the photographs. These signal positions were then plotted on the compilation with wash ink - by holding surrounding radial points as for any detail - and the signals and shoreline were then transferred by the projector to the boat and smooth sheets. After the hydrography was completed and the signal positions found to be correct, the wash ink was removed from the compilation. As in previous instances where this was done, the method worked out very satisfactorily thus saving the plane-table field work ordinarily necessary to locate the hydrographic control.

See opposite page.

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 detail, where well defined, has a probable error of not more than 10 meters; indefinite detail not more than 20 meters.

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

- <u>Old House Creek</u>	W.E.
- <u>ORCHARD CREEK</u>	Charted. (T1073)
- <u>PASTURE CREEK</u>	W.E.
- <u>COCKLE POINT</u>	Charted (T1073)
- <u>LOWER McCOTTER BAY</u>	W.E.
- <u>PIERCE CREEK</u>	Charted (T1073)
- <u>WHITEHURST POINT</u>	W.E.
- <u>WHITTAKER CREEK</u>	Charted (T1073)
- <u>WHITTAKER POINT *</u>	W.E. * Sometimes called Whit-
- <u>ORIENTAL</u>	(Post Office) (T1052a) taker Island.
- <u>CHADWICK POINT</u>	W.E.
- <u>RACCOON CREEK</u>	W.E.
- <u>BLACKWELL POINT</u>	L.N.
- <u>SMITH CREEK</u>	W.E. (T1052) D.G.N. decision
- <u>MORRIS CREEK</u>	W.E.
- <u>DUNGASCON GUT</u> ✓ *	L.N. * Sometimes called Peterson Gut.
- <u>DEWEY POINT</u>	L.N.
- <u>GREEN CREEK</u>	W.E. & O.S. 3824 ✓
- <u>KERSHAW CREEK</u>	W.E. & O.S. 3824 ✓
- <u>SHOP GUT CREEK</u> ✓	W.E.
- <u>WINDMILL POINT</u>	W.E.
- <u>COOPER POINT</u>	W.E.
- <u>WIGGINS POINT *</u>	W.E. * O.S. 1052 called "SAND BEACH" This was the name of a station, not a G.N.
- <u>BRIGHT CREEK</u>	Charted (T1073)
- <u>NEUSE RIVER.</u>	

Names underlined in red approved

by _____ on _____

Respectfully submitted,

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

REVIEW OF AIR PHOTO COMPILATION NO. *T-5565.*Chief of Party: *S. B. Grenell*Compiled by: *D. B. Goings*
*W. C. Oliver*Project: *F. P. 76 - 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) ✓
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 control by traverse.
No graphic control surveys in 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 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~~ 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
reefs, 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)
*Form 524 submitted by J. A. Bond, 1935
No recoverable objects for this area have been
submitted.*
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 submitted by J. A. Bond, 1935
No list of landmarks on Form 567 submitted.
See chart letter 98 (1935), and chart letter 199 (1936)*
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 naviga-
tion is given in the descriptive report. (Par. 16c)
*No bridges on this compilation over
navigable waters*
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 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;

Dec. 20, 1935

S. B. Schenck

Chief of Party

19. Remarks after review in office:

Reviewed in office by: *Lemard C. McNamee July 6, 1936.*
W. J. Jones

Examined and approved:

E. H. Green

Chief, Section of Field Records

L. O. Colbert

Chief, Division of Charts

Fred. L. Peavel

Chief, Section of Field Work

Stude

Chief, Division of Hydrography and Topography.

REVIEW OF AIR PHOTO COMPILATION NO T-5565 (1934)

Scale 1:10,000

Comparison with Previous Topographic Surveys

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

T-1052 (1867), 1:20,000

T-1073 (1868), 1:20,000

T-1052a (1913), 1:10,000

Survey T-1052a covers the waterfront at Oriental. There have been many changes here since 1913. The tower at $35^{\circ} 01'.3 / 76^{\circ} 42'.2$ is gone, as well as the three triangulation stations, Sawmill Stack, Red Brick Stack, and Black Tower. T-1052a is superseded in full by this compilation.

T-3823 (1920), 1:20,000

Survey T-3823 covers the Neuse River between Maw Point and Oriental. With the exception of a few vegetation symbols T-3823 shows shoreline only. Changes have been comparatively small since the time of T-3823. T-3823 is superseded by this compilation over the common area.

T-3824 (1920), 1:20,000

Survey T-3824 covers Adams Creek and the Neuse River in the vicinity of Oriental. There have been large changes of details along the waterfront at Oriental. T-3824 is superseded by this compilation over the common area.

There are no graphic control surveys in this area.

Comparison with New Hydrographic Surveys

H-5911 (1935), 1:10,000

There are no conflicts between the soundings on H-5911 and the shoreline of this compilation. The outer ends of the rows of piles at the Oriental waterfront have been transferred from H-5911 as these ends cannot be seen on the photos. The inshore ends were located from the photos, however. The three piles shown at $35^{\circ} 01'.4 / 76^{\circ} 41'.5$ were transferred from H-5911.

There is a duck blind at $35^{\circ} 01'.8 / 76^{\circ} 40'.4$ and a wreck at $35^{\circ} 01'.8 / 76^{\circ} 43'.1$ shown on H-5911 which cannot be seen on the photos and will not appear on this compilation.

There are several logs, sunken logs, and a row of stakes shown on H-5911 which are not shown on this compilation.

Comparison with the Charts

Charts No. 538, 1231, 3253

The report for this compilation does not mention landmarks. Chart letter 98 (1935)^{and chart letter 127 (1936)} covers landmarks in this area and recommends the continuance on the charts of the spire at Oriental which is shown on Chart No. 538 and 3253 but not on Chart No. 1231.

The sunken wreck shown on Chart No 538 cannot be seen on the photos and is not shown on this compilation but cannot be disproved by the compilation.

Most of the buildings shown on these charts between Cockle Point and Oriental have been removed.

Control

In addition to the control shown on this compilation there is a station which has been destroyed since the photos were taken (See Chart letter 98 (1935)). This triangulation station used in making the plot will not be shown on this compilation.

Red Stack, 1932	$35^{\circ} 01' 1009'.8$ m.
	$76^{\circ} 42' 48'.9$ m.

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 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 office set of photographs.

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

July 6, 1936

Leonard A. McNamee
V B Jones

MEMORANDUM

IMMEDIATE ATTENTION

~~SURVEY~~
 DESCRIPTIVE REPORT } No. H
~~PHOTOSTAT OF~~ } No. T 5565

{ received
 { registered
 { verified
 { reviewed
 { approved

This is forwarded in order that your attention may be directed to the matters as indicated below. Please initial in column 3 as an acknowledgement that your attention has been thus directed. The complete original records are available if desired. If you cannot give this your immediate attention, please initial, note, and forward to the next section marked, calling for the records at your convenience.

ROUTE		Initial	Attention called to
20			
✓ 22		<i>BB</i>	<i>Par. 1, page 2 D.R.</i>
24			
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26			
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82			
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RETURN TO

82	
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C. K. Green *Jan. 8 '36*