

5562

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. 5562

State North Carolina

LOCALITY

~~Neuse River~~

~~Bay River Bay River~~

Upper Part

~~1895~~
Date of photos Oct. 1934

CHIEF OF PARTY

S. B. Grenell

Applied to Chart Comp. 538 April 27, 1937. H.E. MacSwain

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. 5562

REGISTER NO. 5562

State North Carolina

General locality Neuse River Bay River

Locality Bay River Upper Part

* Scale 1:10,000 (appr.) Date of survey Photographs October, 1934
Compiled June, 1935

Vessel Airphoto Compilation Party # 18

Chief of party S. B. Grenell

Surveyed by Army Air Corps - photographs

Inked by 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 of Black and white line print 1:9700
Finished lithograph prints to be on scale 1:10000

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.

17-79 SHEET NO. 5562
 PHOTO NO. 128 TO PHOTO NO. 144
39 52

	BY	START	FINISH
ROUGH RADIAL PLOT	<u>J. W. Griffith</u>	<u>5-20-35</u>	<u>5-20-35</u>
SCALE FACTOR (1.03)	<u>J. W. Griffith</u>	"	"
SCALE FACTOR CHECKED	<u>S. B. Howell</u>	"	"
PROJECTION	<u>Am. Lambert</u>	<u>5/21/35</u>	<u>5/21/35</u>
PROJECTION CHECKED	<u>S. B. Howell</u>	"	"
CONTROL PLOTTED	<u>F. B. Hickman</u>	<u>5/22/35</u>	<u>5/22/35</u>
CONTROL CHECKED	<u>J. H. Riner</u>	<u>5/22/35</u>	<u>5/22/35</u>
TOPOGRAPHY TRANSFERRED	<u>Various times</u>		
TOPOGRAPHY CHECKED	"	"	
SMOOTH RADIAL LINE PLOT	<u>F. B. Hickman</u>	<u>5/23/35</u>	<u>6/6/35</u>
RADIAL LINE PLOT CHECKED	<u>S. B. Howell</u>		<u>6/6/35</u>
DETAIL INKED	<u>W. A. Oliver</u>	<u>6-7-35</u>	<u>10-5-35</u>

AREA DETAIL INKED 23.7 sq. Statute Miles

LENGTH OF SHORELINE OVER 200 m. 26.4 Statute Miles

LENGTH OF SHORELINE UNDER 200 m. 21.3 Statute Miles

GENERAL LOCATION Neuse River

LOCATION Bay River

DATUM STATION Florence 1935 Latitude 35-08-36.01 (1109.8 m.)
N. A. 1927 datum Longitude 76-37-54.26 (1373.5 m.)

REPORT OF COMPILATION NO. 5562

Refer to descriptive report T-5556 to which the general report covering this area is attached.

RADIAL LINE PLOT:

The standard radial line plot was used on this compilation. There was considerable difficulty in holding the plot at the end of the flight at photograph No. 144 because the existing control did not extend to this section. However, a traverse was run along the highway from Ives to Penn, 1935, with a spur which placed a station in the line of flight on print #144 and this solved the problem. The entire radial plot held very well except in cases where a difference in scale between prints was found. All of the control held except that some stations fell off on a few prints due to the tie points being obscured but no one station fell off consistently. Common points to adjacent flights were well selected and held throughout the plot. The scale factor for this and all adjoining compilations is the same (1.03); compilations T-5561 on the north, T-5563 on the east and T-5564 on the south.

ADJUSTMENT OF PHOTOGRAPHS:

In general the radial points were well selected and spaced and the tilt was not excessive making it possible to easily adjust for detail. Exceptionally good prints in the north west corner of the sheet made it possible to carry the detail out to an even line. The method of projecting and interlacing points was used to check the compilation in this area and the accuracy is believed to be up to the standard for the rest of the compilation.

Alligator Creek (Lat. 35-07.6, Long. 76-44) was plotted on a "dog-ear" for the use of the hydrographic party - J. A. Bond - and a true scale photograph made it possible to trace the shoreline with the required accuracy by projecting a few points. The area in question falls beyond the tracing limit and will appear on the smooth hydrographic sheet only. No field topographic sheet covered this area.

* The shoreline of Bay River was carried westward from Long. 76 - 44 by aluminum control sheets - J. A. Bond.

INTERPRETATION OF DETAIL:

The pictures were exceptionally clear with all detail clearly defined. Standard symbols were used and few unusual features were noted. The base of an old burned building (Lat. 35-11.1; Long. 76-39.6) is shown with an open rectangle. This and the ruined dock in front of it show up very clearly. An old abandoned tramroad (35 - 07.6 ; Long. 76 - 44) is shown with a single ~~line~~ ^{line} of small dots. (broken line)

COMPARISON WITH CONTEMPORARY SURVEYS:

Junctions with adjoining compilations have been made in this office and are complete and satisfactory. The compiled shoreline was checked against field topographic sheet "C", J. C. Bose, 1935, and discrepancies investigated.

Topo sheet "C" is T-6404a.

** This is probably a misstatement as there are no graphic control surveys west of longitude 76° 40.5 in the Bay River.*

A check of the photographs was made in the areas where the shoreline did not match and the compilation corrected where found to be in error. Many of the differences were obviously due to interpretation of H.W.L. where the shoreline was indefinite and to sketching by the field topographer between widely spaced rod readings. In Ball Creek the difference was probably due to the topographer losing his azimuth in carrying the traverse up the creek. This area was controlled on the compilation by Station Florence, which was put in after the field topography was completed and so was not available to the topographer to check his closure. In this case and for this reason the compilation was held to be correct.

All of the shoreline of Bay River from a line approximately between Stations POTTER¹⁹³⁵ and Near¹⁹⁴¹ Westward to the limit of the compilation has been done on celluloid only. There are no field control sheets of this area. The signals for control of the hydrography were plotted on the photographs in the field and then carefully compiled in the office and both signals and shoreline transferred to the hydrographic sheets by use of the projector.

COMPARISONS WITH OTHER SURVEYS:

This area is covered by Chart #1231. The shoreline seems to be very much the same in general outline but the road systems show considerable change. There is no detail of importance to be removed from the Chart.

ACCURACY AND COMPLETENESS:

The area covered by this compilation is complete in every detail as accurately as can be determined from the photographs. The probable error of well defined detail should not be in excess of 10 meters and of less well defined detail not more than 20 meters.

<u>PHOTOGRAPHS:</u>	<u>NUMBER</u>	<u>TIME</u>	<u>DATE</u>	<u>TIDE</u>
M-79	38 to 52	9:30 a.m.	10/20/34	Non periodic
M-79	128 to 144	10:15 "	ditto	ditto

NEW PLACE NAMES:

Legend: W.E. - well established local name.
L.N. - local name not widely known. O.S. - appearing on old topographic sheets. C - charted, on current issues of charts.

^ Oyster Creek	W.E. (T1094)
^ Potter Creek	" Called Spencer Cr. - old sheets (T1094)
^ Gascon Creek ✓	"
^ Harris Creek ✓	"
^ Wise Point	"
^ Mesic Creek	"
^ Petty Point	C & O.S. (T1094)
^ Box Point ✓	W.E.

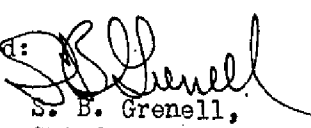
✓ Darby Point
 ✓ Old Log Pound Creek ✓
 ✓ VANDEMERE (village)
 ✓ Windmill Point
 ✓ Smith Creek
 ✓ Smith Creek Point ✓
 ✓ Poor House Point (one word)
 ✓ Parch Corn Bay ✓
 ✓ Muse Shore ✓
 ✓ Newton Creeks ✓
 ✓ Harper Point O.K. (11/15/34)
 ✓ Harper Creek
 ✓ Temple Creek ✓
 ✓ The Hammock ✓
 ✓ Swan Cove ✓
 ✓ Swan Point ✓
 ✓ Chapel Creek Point
 ✓ Punch Bowl ✓
 ✓ Chapel Creek
 ✓ Bee Tree Creek ✓
 ✓ Hall Point
 ✓ Raccoon Creek Point
 ✓ Raccoon Creek
 ✓ Bay River (3)
 ✓ Trent River
 ✓ Alligator Creek
 ✓ Fowler Point
 ✓ Swindell Bay
 ✓ Mason Point
 ✓ Mason Bay
 ✓ Mason Creek
 ✓ Flea Point
 ✓ Powers Point
 ✓ Moore Creek
 ✓ Cathrell Creek ✓ Location?
 ✓ Bell Point
 ✓ Rice Creek
 ✓ Ball Creek Point
 ✓ Ball Creek
 ✓ Cabin Creek
 ✓ Phipps Shore ✓
 ✓ White House Creek (one word)
 ✓ Maribel
 ✓ Florence
 ✓ Riggs Cr.
 ✓ Vandemere Cr.

W.E.
 "
 (T1094a) Post Office
 C & O.S. (T1094)
 " (T1094)
 W.E.
 "
 "
 "
 "
 " Called Lambert Pt. on old sheets. (T1094)
 "
 "
 "
 "
 "
 C & O.S. (T1094)
 W.E.
 "
 "
 C & O.S. (T1094)
 " (")
 " (T1094)
 W.E.-O.S. (")
 W.E.
 "
 "
 C & O.S. (T1094)
 W.E.
 "
 "
 C & O.S. (1094)
 W.E.
 C & O.S. (T1094)
 W.E. & O.S. (T1094)
 W.E.
 C & O.S. (T1094)
 W.E.
 "
 W.E. & O.S. (T1094)

Respectfully submitted,

W. C. Oliver,
 Draftsman.

Approved:


 S. B. Grenell,
 Chief of Party.

names checked are approved for this
 compilation but are not intended for
 charting.

Names underlined in red approved
 by K.T.A on 1/10/36

REVIEW OF AIR PHOTO COMPILATION NO. T-5562 (1934)

Scale 1:10,000

Comparison with the Graphic Control Surveys.

The graphic control surveys T-6403 and T-6404, which cover this area were inadvertently inked before they were submitted to the Chief of Party for inspection and use for hydrography.

Comparison with the photo compilations showed numerous errors in location of shoreline of from 0.5 to 2 mm. and in location of signals from 0.5 to 1.0 mm.

The compilation was checked and accepted as correct and its shoreline used on the hydrographic surveys H-5903 and H-5904. A number of the signals on the graphic control surveys were adjusted by the field hydrographic party (Lieutenant Bond) to fit the compilation shoreline. The adjusted positions are indicated by the intersection of short pencil cross lines. See page 1 of Descriptive Report T-6403, T-6404 for a detailed discussion of errors and adjustment.

T-6403b (1935) 1:10,000. Only a very small portion of T-6403b in Oyster Creek is in common with this compilation.

T-6404a, T-6404b (1935) 1:10,000. The duck blinds shown on T-6404a over the common area were transferred in this office. Also the pile at latitude 35°11.1', longitude 76°39.7', the pile at latitude 35°09.4', longitude 76°37.5', the fences, one at latitude 35°10.8', longitude 76°39.8'; the other at latitude 35°09.9', longitude 76°39.1'. All were transferred in this office.

In addition to those signals which were adjusted by the Field Party on T-6404a there are a number which were not adjusted and are incorrectly located as evident from a check with the compilation. The approximate adjusted position obtained in this office is shown on T-6404a by the intersection of cross lines in green ink. The following stations are affected: Chimney House, Chimney House, @ TAG, in Ball Creek and W. Gable Large Shed, @ WAX at latitude 35°10.9', longitude 76°37.2'.

There are discrepancies between T-6404 and this compilation at the piers shown at Vandemere. The compilation has been verified here and the differences can be accounted for only as errors in the plane table work.

Only a small portion of T-6404b has an area common to this compilation.

All details on T-6403b, T-6404a, T-6404b, are shown on this compilation except non-recoverable plane table stations, the magnetic declinations, and those stations listed in the 3rd par. preceding as in error on T-6404a.

*GENERAL: The traverse extending across the North west portion of this compilation is unmarked and unrecoverable on the ground. The traverse points are marked on the photographs and on the celluloid but will not be shown on the printed compilation.

See pages 5 to 8 of descriptive report T 5550 concerning camera errors on this project and the need for more than the ordinary amount of ground control. The control for this compilation is adequate and sufficient to support the estimated accuracy of 10 to 20 meters given on page 2 of the preceeding descriptive report, T5562.

Comparison with Previous Topographic Surveys.

T-1095 (1869) 1:20,000. Survey T-1095 covers Bay River and vicinity. There have been large change of culture over the common area. Changes in waterfront detail of importance occur at the town of Vandemere. T-1095 is superseded by this compilation over the common area.

T-1095a (1913) 1:10,000. Survey T-1095a covers the waterfront at Vandemere. This is superseded in full by this compilation.

Comparison with New Hydrographic Surveys.

H-5903 (1935) 1:10,000. There are no conflicts between the hydrography of H-5903 and the shoreline of this compilation. There is a new pier shown in an approximate position on H-5903 at the town of Vandemere which had been built since the photos were taken and the graphic control surveys were made for this area. This pier is not shown on this compilation.

The adjusted position of the signals in error mentioned under the comparison with T-6404a, were given to the hydrographic verifier in order to make any changes which might result from shifting the signals.

H-5904 (1935) 1:10,000. There are no conflicts between the hydrography of H-5903 and the shoreline of this compilation.

On H-5903 and H-5904 signals from the graphic control surveys have been adjusted to the compilation shoreline by the field party. (See third paragraph of this review).

Comparison with the Charts.

Chart No. 538, 1231, 3260. The report for this compilation does not mention landmarks. According to the combined descriptive report for T-6403, T-6404 surveys which cover the greater portion of this area. There are no landmarks in this area. One non-floating aid to navigation Bell Point Light appears on this compilation. This has been ^{located} established by triangulation.

Most buildings shown on these charts within the area of this compilation have been either removed or changed. There have been numerous road changes and realignments.

See also opposite page.

*L. A. Mc Gann
6/26/36*

B. G. Jones

REVIEW OF AIR PHOTO COMPILATION NO. 5562

Chief of Party: S.B. Grenell

Compiled by: 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) *No 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) ✓
Supplementary traverse control.
Graphic control surveys T-64036
T-64040, T-64046 (1935)
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. *See also reports of topo. + hydro sheets; J. H. Bond + J. C. Base, 1935.* ✓
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)~~ *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 with T-64036, but none of the described stations fall within the limits of this compilation.
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~~
There are no landmarks of importance for charting in this area. Non-floating aids (one light in Bay River) are shown.
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)
All bridges on this comp. are small, fixed, wooden structures over very small streams & 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)
All names verified by field inspection.
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. ✓

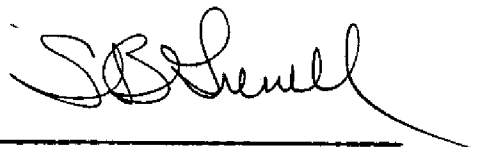
3. All station points are exactly marked by fine black dots. ✓
4. Closely spaced lines are drawn sharp and clear for printing. ✓
5. Topographic symbols for similar features are of uniform weight. ✓
6. All drawing has been retouched where partially rubbed off. ✓
7. Buildings are drawn with clear straight 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; 10-9-35


Chief of Party

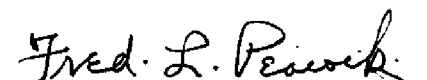
19. Remarks after review in office:

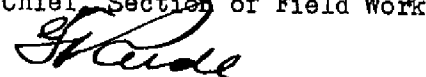
Reviewed in office by: L.A. McGann ✓ B.G. Jones 6/26/36

Examined and approved:


Chief, Section of Field Records


Chief, Division of Charts


Chief, Section of Field Work


Chief, Division of Hydrography
and Topography.