

5563

Form 501
Rev. Dec. 1933
DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY
R. S. PATTON, DIRECTOR

DESCRIPTIVE REPORT

Airphoto
Topographic
~~Hydrographic~~

Sheet No. T - 5563

State North Carolina.

LOCALITY

Neuse River

Bonner Bay - Broad Creek

~~1935~~
Date of photos Oct. 20, 1934.

CHIEF OF PARTY

S. B. Grenell

Applied to chart No. 832 Jan 15, 1937 R.L.J.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

AIRPHOTO
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. T - 5563

REGISTER NO.

State North Carolina.

General locality Neuse River

Locality Banner Bay - Broad Creek,

Scale 1:10,000⁺ Date of survey May - July, 1935

Vessel Air Photo Compilation Party # 18.

Chief of party S. B. Grenell

Surveyed by _____

Inked by John Tassapoulos.

Heights in feet above _____ to ground to tops of trees

Contour, Approximate contour, Form line interval _____ feet

Instructions dated December 14, 1934

Remarks: _____

*Preliminary Block and white tint
on resal 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. 5563

PHOTO NO. M79-146 to 173 TO PHOTO NO. 55 to 74
BY M-80 START 55 FINISH 74

ROUGH RADIAL PLOT J. W. Griffith 5-19-35 5-19-35

SCALE FACTOR 1.03 J. W. Griffith " "

SCALE FACTOR CHECKED S. B. Bell " "

PROJECTION Ann Arbor 5/21/35 5/21/35

PROJECTION CHECKED S. B. Bell 5/22/35

CONTROL PLOTTED J. C. Lison Jr 5/23/35

CONTROL CHECKED H. B. Reiner 5/23/35

TOPOGRAPHY TRANSFERRED

TOPOGRAPHY CHECKED

SMOOTH RADIAL LINE PLOT J. B. Hickman 5/23/35 6/15/35

RADIAL LINE PLOT CHECKED

DETAIL INKED J. Dampier 6/28/35 7/22/35

AREA DETAIL INKED 13.5 sq. Statute Miles

LENGTH OF SHORELINE OVER 200 m. 31.5 Statute Miles

LENGTH OF SHORELINE UNDER 200 m. 19.3 Statute Miles

GENERAL LOCATION North Carolina Neuse River

LOCATION Bonner Bay

DATUM STATION Marsh 1913-22-25 Latitude 35° 10' - 25.92' (798.8m) ✓
✓ N.A. 1927 Datum Longitude 76° 34' - 45.72' (1156.9m) ✓

unadjusted

REPORT OF COMPILATION:RADIAL LINE PLOT:

idea review of back regarding accuracy of this plot
Refer to descriptive report T-5560 to which the
general report covering this area is attached. ✓
Ram.

The standard radial line plot method was used in compiling this sheet, and considerable difficulty was encountered. Besides the scale differences in prints found in photographs for this project, there is a break and displacement in the line of the M 80 flight across this sheet; making it very hard to accurately carry the flight azimuth through. The break comes between prints M80 - 64 and 68 in a sparsely controlled area, made more so by the faulty spotting of triangulation station "Maw 2", 1913-35, by the field inspection party. It was found necessary to trace shoreline from the field topographic sheets "A" and "D" of J. C. Bose onto the compilation, and to use identifiable parts of this shoreline in checking the radial plot. *Topographic signal "N. Gable Shed", when identified on the prints, was found to hold the radial plot and was used for that purpose in place of triangulation station "Maw 2". Triangulation station "Piney Pt. Ecc.", 1932 could not be pricked accurately on the photographs because of overhanging trees, and it is quite possible that the south end of the M80 flight is slightly off because of this fact. With the exception of "Maw 2" and "Piney Pt. Ecc.", all other control on this compilation was held by the radial plot.

Common points to adjacent flights were well selected and held throughout the plot.

The scale factor for this and adjoining compilations T-5562 and T-5564 on the west is the same, 1.03. This compilation also joins T-5560 and T-5561 on the north, but the junctions fall in Bay River with no common detail. The radial plot was carried through sheet junctions by sticking the sheets together. "A" is T-6403a. "D" is T-6404b.
**This station, however, had not been pricked, no radial line drawn thru it on the photographs if it had been used for control.*
Ram.

ADJUSTMENT OF PHOTOGRAPHS:

In general, radial points were well selected and spaced. Some difficulty was experienced, however, with pictures of the M79 flight due to their being small in scale and requiring considerable adjustment between radial points. A large part of the trouble was found in "B" prints where radial points were located by rather flat intersections of radial lines. The method of interlacing was resorted to whenever it was found necessary to establish additional points to facilitate adjustments.

At the break in the line of the M80 flight, print #69, a great many complications were found to exist, both in scale of the pictures and in excessive tilt.

INTERPRETATION:

Pictures of the M79 flight were very clear, showing detail sharply defined, while pictures of the M80 flight were hazy and full of sun spots, making it very difficult to accurately identify shoreline and topographic features.

The tramroad bed in vicinity of Lat. 35 - 08 and Long. 76 - 35 is shown on the compilation by a single row of sand dots, a symbol adopted by this party to indicate abandoned tramroads. The field inspection party noted that this road was abandoned and the rails taken up.

Heavily wooded areas are represented according to field inspection notes as to percentages of coniferous and deciduous trees.

The trail indicated crossing the marsh in vicinity of Wading Creek is used by cattle going to and from the Neuse River shore.

Cultivated areas are clearly outlined on the compilation by intricate systems of drainage ditches, easily discernible on the photographs and verified by the field inspection party.

Standard topographic symbols were used to indicate topographic features except as noted above.

REPORT OF COMPILATION (CONTINUED):

COMPARISONS WITH CONTEMPORARY SURVEYS:

Junctions with adjoining compilations were made in this office and are complete and satisfactory.

Compilation shoreline along Bay River common to field topographic sheets "A" and "D" executed in 1935 by the party of J. C. Bose was carefully checked against the field topographic sheets, and many discrepancies noted. Adjustments were made on the compilation where the differences were attributed to faulty interpretation of the photographs, and where the topographic sheets were thought to be in error, the differences were discussed with J. A. Bond, who had taken over the field sheets of J. C. Bose.

A is T-6403a. D is T-6404b.

COMPARISONS WITH OTHER SURVEYS:

This compilation was compared with U. S. C. & G. S. Chart # 1231, covering the same area, and compiled shoreline found to agree in general with the charted. Wading Creek, at Lat. 35 - 07.3 and Long. 76 - 33.5, is not shown on the chart in proper detail. The road system has changed in places, and the photographs do not justify the showing of roads as charted in the vicinity of Green Creek. No docks are shown on the chart at Lat. 35 - 08.5 and Long. 76 - 34.1.

ACCURACY AND COMPLETENESS:

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

PHOTOGRAPHS:

See review at back.

Photo. Nos.	Time	Date	Tide
(M 79) 146 -- 173	10:15 A. M.	10/20/34	No tide.
(M 80) 55 -- 74	2:05 P. M.	10/20/34	No tide.

See following pages for "Place Names".

N A M E S

LEGEND:

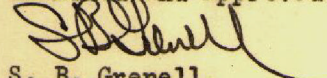
W. E. -- Well established local name known throughout large area.
L. N. -- Local name known in immediate area only.
O. S. -- Appears on old Topographic Sheet.
C. ----- Charted.

NAME	LEGEND	REMARKS
<u>Neuse River</u>		
<u>Point of Long Shoal.</u>	W. E.	Reject
<u>Riggs Creek.</u>	W. E.	
<u>Bonner Bay.</u>	C., O. S. T1094	
<u>Little Island.</u> ✓	W. E.	
<u>Spring Creek.</u>	C., O. S. T1094	
<u>Long Creek.</u>	W. E.	
<u>Sheep Head Creek.</u>	W. E.	(one word)
<u>Sheep Pen Creek.</u> ✓	W. E.	
<u>Hog Pen Creek.</u> ✓	W. E.	
<u>Pine Tree Point.</u>	W. E.	Old topo name was "Great Hammock". (This was not the name of the point. Was the name of a signal on the point)
<u>Yaupon Creek.</u> (Yaupon)	W. E.	Sometimes Called "Fishing Bay".
<u>Fisherman Bay.</u>	C., O. S. T1094	
<u>Deep Point.</u>	W. E.	
<u>Maw Point.</u>	C., O. S. T1094	
<u>Maw Bay.</u>	C., O. S. T1094	
<u>Wading Creek.</u> ✓	W. E.	
<u>Swan Creek.</u>	C., O. S. T1073	
<u>Swan Island.</u>	C., O. S. "	
<u>Piney Point.</u>	C., O. S. T1073	
<u>Piney Point Creek.</u>	W. E.	
<u>Bear Gut Hammock.</u>	W. E.	Reject. Unpleasant
<u>Green Creek.</u>	C., O. S. T1073	
<u>Dowdy Point.</u>	W. E.	
<u>Pitman Creek.</u>	C., O. S. T1073	
<u>Simpson Place.</u> ✓	W. E.	
<u>Buxton Creek.</u>	W. E. (Buxton Cr. on T1073) and on old chart 1442	Charted as "Burton Creek".
<u>Broad Creek.</u>	C., O. S. (T1073)	
<u>Parrish Creek.</u>	W. E.	
<u>Mill Creek.</u> ✓	W. E.	
<u>Gascon Creek.</u> ✓	W. E.	
<u>Tonney Hill Point.</u>	W. E.	
<u>Cedar Creek.</u>	W. E. (T1073)	
<u>Cedar Point.</u>	W. E.	
<u>Gum Thicket.</u> ✓	W. E.	
<u>Gum Thicket Creek.</u>	W. E.	Bay River, chart 1231 G.N.S

Field Review by:
John Tassapoulos,
Draftsman.

Respectfully submitted:
John Tassapoulos,
Draftsman.

Examined and Approved:


S. B. Grenell,
Chief of Party.

Names checked approved for this
compilation but not for charting.

Names underlined in red approved
by K.T.A on 1/8/36

REVIEW OF AIR PHOTO COMPILATION NO. T-5563 (1934)

Scale 1:10,000

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

There is a scarcity of ground control on this compilation. One station which was available for controlling the radial plot was not used, namely, Triangulation Station Broad Creek Beacon 1920 (lighted) which was plotted on the compilation in this office by L.A.M., checked by R. M. Berry, June 17, 1936. Its position is latitude $35^{\circ}05'28.541''$ (879.5 m), longitude $76^{\circ}35'0.065''$ (1.6 m) N. A. 1927 datum.

This light was identified in this office on the photographs of this area. A replot here using the new control station verified the original plot for this area. The light according to the U. S. Light-house Service was established in 1910 and has not been moved since that time.

In addition to the triangulation graphic control survey T-6403 mentioned on the next page have been used as supplemental control.

Comparison of the compilation with the graphic control surveys and previous topographic surveys, and partial check of the plot in this office as noted above, indicate an accuracy of location within 10 to 20 meters as given on page 2 of the preceding Descriptive Report.

Comparison with the Graphic Control Surveys.

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

Comparison of T-6404b with the photo compilation 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, H-5926. A number of the signals on graphic control survey T-6404b were adjusted by the field hydrographic party (Lieutenant Bond) to fit the compilation shoreline. The adjusted positions are indicated by the intersections of short pencil cross lines. See page 1, of Descriptive Report T-6404 for a detailed discussion of errors and adjustment.

T-6404b (1935) 1:10,000. The piles shown on the compilation at $35^{\circ}08.3'$, longitude $76^{\circ}34.6'$ were transferred in this office from T-6404b. Refer to the first three paragraphs above for discussion of errors and the adjustment of them for T-6404b.

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

LCM

8/8/36

T-6403a (1935) 1:10,000. There is fair agreement between the shoreline of T-6403a and this compilation. No adjustment of signals were necessary on T-6403a. One signal "N Gable Shed" was used to help control the radial plot. See page 1, of the Descriptive Report for this compilation.

All details on T-6403a, T-6404b, are shown on this compilation except non-recoverable plane table stations and the magnetic declinations.

Comparison with Previous Topographic Surveys.

T-1073 (1868) 1:20,000. Survey T-1073 covers a portion of the Neuse River in the vicinity of Broad Creek. Some changes have occurred in the positions of shoreline and in the interior nearly all buildings shown on T-1073 have been removed. T-1073 is superseded by this compilation over the common area.

T-1094 (1869) 1:20,000. Survey T-1094 covers Bay River and vicinity. A reduction of the compilation to the scale of T-1094 shows that the shoreline has receded since the time survey T-1094 was made. This recession averages about 50 meters for the outer western shoreline of this compilation covered by T-1094.

The large area between Bonner Bay and Fisherman Bay shown on T-1094 as a solid marsh area appears on the photographs as an area covered with brush and grass for the greater part. The limits of this higher area appear very indefinite on the photographs and appears to gradually merge into the marsh. The field photographs do not designate or define the limits of this meadow. This area, consequently has been delineated from an office inspection of the photographs and may be incorrectly shown in some places. It is believed that since the difference of elevation of the two cultures is very small there are some low marshy spots scattered over the higher area.

T-1094 is superseded by this compilation over the common area.

T-3823 (1920) 1:20,000. (See opp. page).
Comparison with New Hydrographic Surveys.

H-5903 (1935) 1:10,000, H-5926 (1935) 1:10,000. There are no conflicts between the hydrography of H-5903, H-5926 and the shoreline of this compilation over the respective common areas.

Comparison with the Charts.

Charts Nos. 1231, 3260. The report for this compilation does not mention landmarks. According to the combined descriptive report for T-6403, T-6404, which cover about one-half of this area, there are no landmarks in this area. For the other half not covered by T-6403, T-6404, no landmarks will be found from an examination of the photographs.

The two lights which are located in this area are shown on the compilation. They have been established by triangulation.

June 1936.

Leland A. McGowan

REVIEW OF AIR PHOTO COMPILATION NO. *T-5563*.Chief of Party: *S.B. Grenell*Compiled by: *J. Tassopoulos*Project: *North Carolina Coast* 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) ✓
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) *(1935) None*
Graphic control surveys T-6403a, T-6404b were made 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. — None
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) ✓
High water line along sand beach obtained from notes and sketches on field inspection photographs of the sand areas.

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 described.* ✓
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 landmarks of importance for charting fall within the area of this compilation.* ✓
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* *No bridges.* ✓
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; 12/18/35


Chief of Party

19. Remarks after review in office:

Reviewed in office by: *Leonard A. McNamee June, 1936.*
V. B. Jones

Examined and approved:

E. H. Green.
Chief, Section of Field Records
L. O. Dolbert.
Chief, Division of Charts

Fred L. Peacock
Chief, Section of Field Work
Grunde
Chief, Division of Hydrography
and Topography.