

5561

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. T- 5561

State North Carolina

LOCALITY

~~Vicinity of Pamlico Sound~~
Bay River
r. Mesic & Vicinity

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

CHIEF OF PARTY

S. B. Grenell

1055

Applied to chart No 832 Jan. 21, 1937 R.L.J.
Applied to Chart Correction 1231 April 23, 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.

REGISTER NO. T- 5561

State North Carolina

General locality Bay River
~~Vicinity of Pamlico Sound~~

Locality Bay River - Mesic & Vicinity

Scale 1:10,000 Date of survey May to July, 19 35
Compiled

Vessel Airphoto Compilation Party # 18

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

Surveyed by

Inked by G. F. Lenoir, Jr.

Heights in feet above to ground to tops of trees

Contour, Approximate contour, Form line interval feet

Instructions dated December 14, 19 34

Remarks:

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. 5561

PHOTO NO. M-79 (27) ^{to Photo No 39}
M-79 (177) ^{TO PHOTO NO. 192}
M-80 (43) ^{" " " 52}

BY START FINISH

ROUGH RADIAL PLOT J. B. Hickman 4/24/35 4/30/35
 SCALE FACTOR (1.03) J. B. Hickman 4/24/35 4/30/35
 SCALE FACTOR CHECKED S. B. Shewell 4/30/35
 PROJECTION A. M. Gamber 5/2/35 5/2/35
 PROJECTION CHECKED S. B. Shewell 5/2/35 5/2/35
 CONTROL PLOTTED P. W. Griffith 5/6/35 5/6/35
 CONTROL CHECKED A. M. Gamber 5/6/35 5/6/35
 TOPOGRAPHY TRANSFERRED Checked with projector against field topo
 TOPOGRAPHY CHECKED Sheets of S. C. Base, 1935
 SMOOTH RADIAL LINE PLOT J. B. Hickman 5/13/35 5/18/35
 RADIAL LINE PLOT CHECKED S. B. Shewell 5/18/35
 DETAIL INKED G. F. Lenoir Jr 5/19/35 7/29/35

AREA DETAIL INKED 21.9 sq. Statute Miles

LENGTH OF SHORELINE OVER 200 m. 15.5 Statute Miles

LENGTH OF SHORELINE UNDER 200 m. 21.5 Statute Miles

GENERAL LOCATION Vicinity of Pamlico Sound
Pamlico River

LOCATION Vicinity of Bay River - Mesic

DATUM STATION MESIC 1935
1927 DATUM ✓ Latitude 35°-12'-19.64" (605.3 M) ✓
 Longitude 76°-37'-44.70" (1130.7 M) ✓

S. B. Shewell

REPORT OF COMPILATION

(Note: This report written by Chief of Party from notes by compiler and others after the party was disbanded.)
The general report for compilations T-5550 to T-5566, incl. is included in the descriptive report T-5550.

RADIAL LINE PLOT: The plot was carried through on existing second and third order control with only those difficulties encountered on all other plots of this project. These difficulties were caused by faulty prints as discussed in the Special Report for this area.

All control held with the exception of station Rope, which, due to the difficulty of securing good ties, was pricked in slightly different locations on several prints. These special cases were investigated and the position chosen which checked most closely with station Penn. The common points between flights checked and the photographs ran consistently to a factor of 1.03. The plot was carried through continuously to all adjoining sheets.

ADJUSTMENT OF PHOTOGRAPHS: The tilt of the photographs was not excessive and the radial points were well selected and spaced and of sufficient number to control the detail. A few points were added in critical areas to check the location of shoreline and ditch systems. These points were added by the interlacing method between checked points.

INTERPRETATION: The pictures for this area were in general very clear and all detail could be easily identified either by direct inspection or by use of the stereoscope and magnifying glass. The buildings were all examined by stereoscope and all such buildings definitely identified were located as accurately as possible. Ditch systems were also very carefully located; where possible, by the addition of interlaced points.

There are a few short sections of abandoned tramroad shown by the usual row of dots and a few poor wagon tracks or trails - sometimes along old tramroad beds - shown by a single dashed line.

COMPARISONS WITH CONTEMPORARY SURVEYS: All junctions with adjoining compilations have been made and checked and are complete. Comparisons have also been made with the aluminum mounted control sheets of Bay River executed by J. C. Bose, 1935. Where differences occurred, the compilations have been carefully checked and adjustments made where the compilations were found to be in error. Other small discrepancies, which are believed to be on the field control sheets, have been discussed with Lieut. J. A. Bond, who took over the field sheets of J. C. Bose, and he has discussed the adjustments of the field sheets in his reports.

Comparisons have also been made with charts and old survey sheets of the area and no details worthy of special mention have been noted. Some of the exposed marshy shoreline has changed considerably since the surveys of the 1870-80 period.

There are no maps of this area other than those mentioned in the preceding paragraph.

ACCURACY AND COMPLETENESS:

This compilation is adequately controlled and has been compiled with as great accuracy as possible considering the errors in the photographs as heretofore discussed. It is believed that well defined detail is located within a limiting error of not more than 10 meters and less well defined detail within a limit of 20 meters. This limit is probably reached in a few restricted areas only where the control is scattering or where the detail is taken from the outer wing sections. The general check with the field topographic sheets showed a very close agreement where both surveys were well controlled.

PHOTOGRAPH NUMBERS	TIME	DATE	TIDE
M-79 ²⁸ 26 - 39	9:30 a.m.	10/20/34	Non periodic
M-80* 41 - 54	2:00 p.m.	"	"
M-80 175 - 195 M-79 ₁₉₁	3:15 p.m.	"	"

Compiled by: G. F. Lenoir, Jr.

Report written by:

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

* Center line of this flight falls outside limits of this compilation.

PLACE NAMES FOR COMPILATION NO. 5561

LEGEND: L.N. Local name - not widely known.
W.E. Well established local name.
O.S. Appears on old topographic survey sheets.
C. Charted.

* * * * *

<u>Lamber Creek</u> ✓	W.E.
<u>Gibb Point</u> ✓	W.E.
<u>Ditch Creek Point</u> ✓	W.E.
<u>Ditch Creek</u> ✓	C-O.S. (Arm of Jones Bay) (T1095)
<u>Ditch Creek</u> ✓	W.E. (Arm of Gale Creek)
<u>Sheepneck Creek</u> ✓	L.N.
<u>Boat Passage</u> (not a G.N.)	(Old canal connecting the two Ditch Creeks)
<u>Ball Island</u> ✓	C-O.S. T-1094
<u>Gale Creek</u> ✓	C-O.S. "
<u>Raccoon Creek</u> ✓	L.N.
<u>Beef Creek</u> ✓	W.E.-O.S. T-1094
<u>Persimmon Tree Point</u> ✓	L.N.
<u>Whelton Creek</u> ✓	L.N.
<u>Tar Creek</u> ✓	L.N.
<u>Gale Creek Point</u> ✓	W.E.
<u>No Jacket Creek</u> ✓	W.E.
<u>Shaddock Creek</u> ✓	W.E.
<u>Bear Creek</u> ✓	C-O.S. T-1094
<u>Win Creek</u> ✓	L.N.
<u>Marshal Creek</u> ✓	L.N.
<u>Garden Point</u> ✓	L.N.
<u>Cox Creek</u> ✓	L.N.
<u>Plum Creek</u> ✓	L.N.
<u>Alligator Point</u> ✓	L.N. (Bear Creek) (reject a/c duplication)
<u>Alligator Point</u> ✓	W.E. (Vandemere Creek)
<u>Bennett Creek</u> ✓	W.E.
<u>Riggs Creek</u> ✓	W.E. (omit a/c duplication in lat 35-09 long 76-36)
<u>Harper Creeks</u> ✓	W.E.
<u>Sanders Point</u> ✓	C-O.S. (Sanders Pt on T1094 and H1011)
<u>Little Bear Creek</u> ✓	C-O.S. (T1094)
<u>Blossom Pond</u> ✓	L.N. (Not very widely known)
<u>Oyster Creek</u> ✓	W.E. (This is not part of Oyster Cr.)
<u>Little Vandemere Creek</u> ✓	W.E.
<u>Vandemere Creek</u> ✓	C-O.S. (T1094) This is Vandemere on 1094 but without the r on the chart, P.O. Guide & Rand McNally Atlas
<u>Long Creek</u> ✓	W.E.
<u>Cedar Point</u> ✓	W.E.
<u>Mesic</u> ✓	(Post Office) ✓ P.O. Guide & Rand McNally.
<u>Cedar Creek</u> ✓	W.E.
<u>Graveyard Point</u> ✓	W.E.
<u>Dump Creek</u> ✓	
<u>Jones Bay</u> ✓	T1095
<u>Bay River</u> ✓	

Names checked are approved Reviewed and Checked:
for the compilation but are
not intended for charting

John Tassopoulos

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

(Signature)

REVIEW OF AIR PHOTO COMPILATION T 5561 (1934)
Scale 1:10,000

Comparison with Graphic Control Surveys

On the following graphic control surveys, T 6403b, T 6404a, there are errors in the original position of shoreline and signals. "In these areas wherein the two shorelines do not agree adjustment of the topographic signals was made to agree with the air photo compilation. The adjusted position of each is indicated on these surveys by the intersection of short pencil cross lines. Where cross lines are not shown at a signal it may be assumed that the red dot at the center of the station symbol is the correct location and checks the air photo compilation." (Above statements in quotations from Descriptive Report, T 6403, T 6404.)

The method of adjustment described above is not good practice unless all signal positions are indicated by cross lines even if there is no adjustment in them. In reviewing these surveys the adjustments of a number of recoverable details are believed to have been overlooked. These cases are discussed below.

There is not good agreement of shoreline between T 6403b, T 6404a and this compilation. Differences vary between 0.5 mm. and 2.0 mm. Some differences are short and are due to incorrect sketching between rod readings, while others are errors which have not been fully explained in either this report or the reports for T 6403b and T 6404a. These are probably errors of orientation of the planetable or rod readings.

T 6403b (1935), 1:10,000. The adjusted positions of signals or stations are in agreement with the compilation shoreline except at the following places where no adjustment had been made:

CUL at lat. $35^{\circ} 12.25'$, long. $76^{\circ} 37.4'$.

JEW (W. Gable House) at lat. $35^{\circ} 12.3'$, long. $76^{\circ} 37'$. This recoverable position is out 0.9 mm. on T 6403b and has not been transferred. The house is shown on the compilation.

The following details have been transferred to this compilation in this office. Checked by R. M. Berry.

Nine described U.S.E. stations whose descriptions are filed under number T 6403b.

Chimney, Oysterhouse, lat. $35^{\circ} 13.3'$, long. $76^{\circ} 36.7'$

S. W. Gable shed, lat. $35^{\circ} 12.1'$, long. $76^{\circ} 37.3'$.

Beacon 40 (Light "12")

Fence located at lat. $35^{\circ} 12.1'$, long. $76^{\circ} 37.3'$.

All detail on T 6403b within this area is shown on this compilation except non-recoverable plane table stations and the magnetic declination.

T 6404a (1935), 1:10,000. The adjusted positions of signals are in agreement with the compilation shoreline. The pile at lat. $35^{\circ} 11.9'$, long. $76^{\circ} 39'$ and the Buckblind at lat. $35^{\circ} 11.8'$, long. $76^{\circ} 38.9'$ have not been adjusted on T 6404a. These were transferred in this office, holding to the adjusted positions of the signals in that locality.

The piles at lat. 35° 11.3', long. 76° 39.6' and the recoverable station Chimney, White House at the same place have been transferred in this office. Checked by R. M. Berry.

All detail on T 6404a within this area is shown on this compilation except buoys and non-recoverable plane table positions.

Comparison with Previous Topographic Surveys

T 1094 (1869), 1:20,000. Survey T 1094 covers Bay River and vicinity. There have been road changes of importance for charting since survey T 1094 was made. Shoreline changes are not large. T 1094 is superseded by this compilation over the common area.

T 1095 (1869), 1:20,000. Survey T 1095 covers the west shore of Pamlico Sound from Bay River to Pamlico Point including Jones Bay. Changes since time of survey T 1095 have been comparatively small. T 1095 is superseded by this compilation over the common area.

Comparison with New Hydrographic Surveys

H 5903 (1935); H 5926 (1935) - both scale 1:10,000.

There are no conflicts between the hydrography of H 5903, H 5926 and the shoreline of this compilation.

Comparison with Charts Nos. 1231, 3253

The report for this compilation does not mention landmarks. According to the descriptive report for graphic control surveys T 6403, T 6404 there are no landmarks in this area except non-floating aids to navigation.

The numbers but not the positions of these lights and beacons have been changed since their positions were determined by triangulation, according to information furnished by the U. S. Lighthouse Service. The new numbers are shown on the compilation in parenthesis after the station name. Light "12" has not been established by triangulation. It was formerly Light "40". The changes of numbers have been reported in Notice to Mariners, January 1936 but the new numbers are not shown in the Light List for 1936.

The control is adequate to support the estimate of accuracy given on page 2. Refer to pages 3a 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.

May 22, 1936.

Lionard A. McNamee
L. A. McNamee

REVIEW OF AIR PHOTO COMPILATION NO. T-5561.

Chief of Party: *S. B. Grenell*

Compiled by: *G. F. Lenoir Jr.*

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) ~~None~~
Graphic control surveys T-6403 b, T-6404 a cover this compilation. ✓
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. ✓
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)
Recoverable described stations are filed under Survey No T-64036. There are 9 stations, all U.S.E. stations ✓
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)
There are no landmarks suitable for charting in this area. All non-floating aids to navigation are shown on 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. ✓

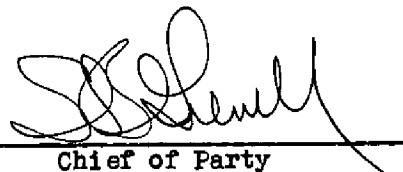
3. All station points are exactly marked by fine black dots. ✓
4. Closely spaced lines are drawn sharp and clear for printing. ✓
5. Topographic symbols for similar features are of uniform weight. ✓
6. All drawing has been retouched where partially rubbed off. ✓
7. Buildings are drawn with clear straight 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; 12/17/35


Chief of Party

19. Remarks after review in office:

Reviewed in office by:

Leland A. Milsam May 22, 1936.
J. G. Eubank

Examined and approved:

K. T. Adams
Asst Chief, Section of Field Records
Division of Charts
L. O. Solbert
Chief, Division of Charts

Fred. L. Peacock
Chief, Section of Field Work
Arthur H. ...
Acting Chief, Division of Hydrography
and Topography.