

# 8987

ORIGINAL

Diag. Cht. Nos. 537 & 1110

Form 504

## U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

### DESCRIPTIVE REPORT

Type of Survey **TOPOGRAPHIC**

Field No. Ph-20(47) Office No. **T-8987**

#### LOCALITY

State **NORTH CAROLINA**

General locality **PAMLICO RIVER**

Locality **EDWARD**

19450

#### CHIEF OF PARTY

**Riley J. Sipe, Chief of Field Party**

**Arthur L. Wardwell, Tampa Photogrammetric**

**Office**

#### LIBRARY & ARCHIVES

DATE **January 23, 1953**

B-1870-1 (1)

7888

# DATA RECORD

T - 8987

Project No. (II): **Ph20(47)**

Quadrangle Name (IV):

Field Office (II): **Washington, N. C.**

Chief of Party: **Riley J. Sipe**

Photogrammetric Office (III): **Tampa, Florida**

Officer-in-Charge: **Arthur L. Wardwell**

Instructions dated (II) (III): **23 July 1948**

Copy filed in Division of  
Photogrammetry (IV)  
*Office Files*

Method of Compilation (III): **Graphic**

Manuscript Scale (III): **1:20,000**

Stereoscopic Plotting Instrument Scale (III): **Inapplicable**

Scale Factor (III): **None**

Date received in Washington Office (IV): **7-3-50**

Date reported to Nautical Chart Branch (IV): **7-7-50**

Applied to Chart No.

Date:

Date registered (IV): **8-11-52**

Publication Scale (IV): **1:24,000**

Publication date (IV):

Geographic Datum (III): **N.A. 1927**

Vertical Datum (III):

Mean sea level except as follows:  
Elevations shown as (25) refer to mean high water  
Elevations shown as (5) refer to sounding datum  
i.e., mean low water or mean lower low water

Reference Station (III): **TURNSTAIL, 1931**

Lat.: **35° 16' 54."391(1676.2m)**

Long.: **76° 56' 35."347(893.3m)**

Adjusted

~~Original~~

Plane Coordinates (IV):

State: **N. Carolina** Zone:

Y=

X=

Roman numerals indicate whether the item is to be entered by (II) Field Party, (III) Photogrammetric Office, or (IV) Washington Office.

When entering names of personnel on this record give the surname and initials, not initials only.

J. R. Smith

Areas contoured by various personnel  
(Show name within area)  
(II) (III)

## DATA RECORD

Field inspection by (II): **J.R. Smith**Date: **13 Oct 1948**Planetable contouring by (II): **J.R. Smith**Date: **13 Oct 1948**Completion Surveys by (II): **J. E. HUNDLEY**Date: **OCT 1950**Mean High Water Location (III) (State date and method of location):  
**No shoreline**Projection and Grids ruled by (IV): **W.E.W. (Washington Office)**Date: **26 June 1948**Projection and Grids checked by (IV): **W.E.W. (Washington Office)**Date: **26 June 1948**Control plotted by (III): **B.F. Lampton**Date: **6 Oct 1948**Control checked by (III): **R.R. Wagner**Date: **19 Oct 1948**~~Radial Plot~~ ~~on stereoscopic~~Date: **13 June 1949**~~Control checked by (III):~~ **H.A. Duffy**

Planimetry

Date:

Stereoscopic Instrument compilation (III): **Inapplicable**

Date:

Contours

Manuscript delineated by (III): **J.C. Richter**Date: **12 Aug 1949**Photogrammetric Office Review by (III): **J.A. Giles**Date: **8 May 1950**Elevations on Manuscript **J.C. Richter (III)**  
checked by (II) (III):Date: **9 Aug 1949**

Camera (kind or source) (III): **U.S.C.&G.S. 9 Lens**

Number	Date	Time	Scale	Stage of Tide
22191	3-29-48	13:54	1:20,000	
22192	"	13:55	"	No
22235	"	15:33	"	Shoreline
22236	"	15:34	"	

Tide (III)

Reference Station:  
 Subordinate Station: **No Shoreline**  
 Subordinate Station:

Ratio of Ranges	Mean Range	Spring Range

Washington Office Review by (IV): **K. N. MAKI**

Date: **3-27-52**

Final Drafting by (IV):

Date:

Drafting verified for reproduction by (IV):

Date:

Proof Edit by (IV):

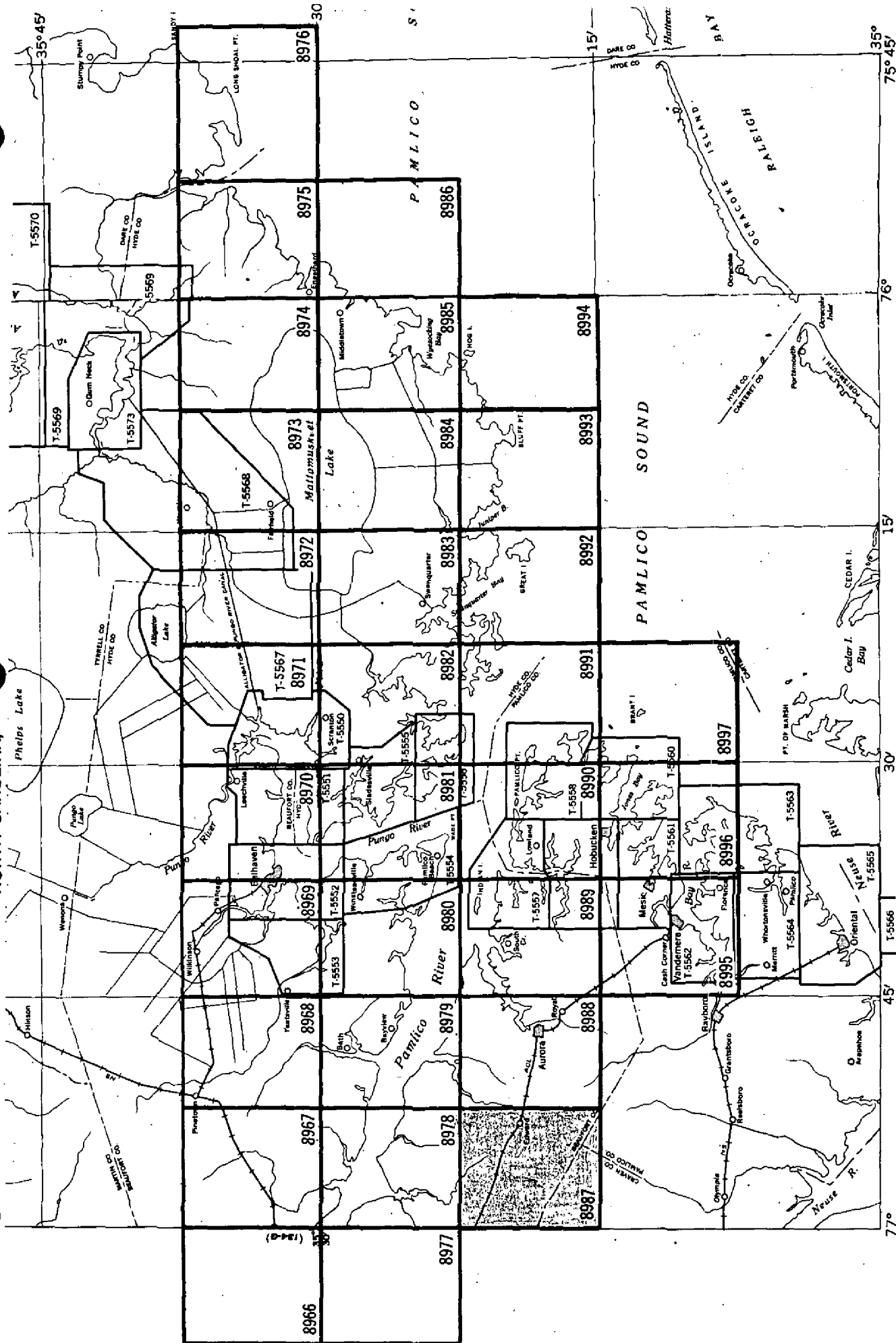
Date:

Land Area (Sq. Statute Miles) (III): **60.6**  
 Shoreline (More than 200 meters to opposite shore) (III): **None**  
 Shoreline (Less than 200 meters to opposite shore) (III): **None**  
 Control Leveling - Miles (II): **41.5**  
 Number of Triangulation Stations searched for (II): **8** Recovered: **8** Identified: **5**  
 Number of BMs searched for (II): **6** Recovered: **6** Identified: **6**  
 Number of Recoverable Photo Stations established (III): **None**  
 Number of Temporary Photo Hydro Stations established (III): **None**

Remarks:

## PH-20(47)

**NORTH CAROLINA, Vicinity of Pamlico River**



## SUMMARY TO ACCOMPANY T-8987

Topographic map T-8987 is one of a series of 32 maps in Project Ph-20(47). The field operations included complete field inspection and planetable contouring on 1:20,000 scale nine-lens photos. The manuscript was graphically compiled and completely field edited.

This map is to be published by the U. S. Geological Survey at a scale of 1:24,000 as a standard  $7\frac{1}{2}$  minute quadrangle. The registered copies under T-8987 to be filed in the Bureau Archives will include the original descriptive report, a cloth-mounted print of the manuscript at a scale of 1:20,000 and a cloth-mounted print of the published map at a scale of 1:24,000.

FIELD INSPECTION REPORT  
 Quadrangle T-8987  
 35° 15'.0/ 76° 52' 30"/7.5  
 Project Ph-20(47)  
 Riley J. Sipe, Chief of Party

The field work for this quadrangle was done in accordance with the Director's Instructions, Project Ph-20(47), Field, dated 23 July 1948 and other instructions as noted herein. The field work was accomplished by the following personnel: *Filed in Div Photogr. Office Files*

<u>Name &amp; Title</u>	<u>Phase</u>	<u>Started</u>	<u>Completed</u>
M. A. Stewart Engr. Aid	Third Order Levels	9-9-47	10-30-47
J. R. Smith Engr. Aid	Levels	6-23-48	6-30-48
	Contours	7-1-48	10-13-48
	Horizontal Control	6-24-48	7-15-48
	Recovery & Identification		
	Field Inspection	8-15-48	10-13-48

1. DESCRIPTION OF THE AREA

This quadrangle is in Beaufort and Craven Counties, North Carolina. The land area in the quadrangle is mostly wooded with a few scattered farms. The southern half of the quadrangle is drained by several ditches draining into Little Swift Creek which drains into the Neuse River. The major portion of the northern half of the quadrangle is drained by Blount and Durham Creeks which flows into the Pamlico River

A branch of the Atlantic Coast Line Railroad and N. C. State Highway No. 33 enters the quadrangle in the northwestern part and extends southeasterly through the quadrangle.

There are only two small villages in the quadrangle, Edward in the northeastern portion and Blounts Creek in the northwestern portion.

2. COMPLETENESS OF FIELD INSPECTION

Field inspection of the quadrangle is complete and all features are adequately classified and identified on the photographs.



3. INTERPRETATION OF THE PHOTOGRAPHS

No difficulties were encountered in interpretation of the photographs.

4. HORIZONTAL CONTROL

All known horizontal control stations were recovered and a number believed to be sufficient for the control of the radial plot, were identified.

5. VERTICAL CONTROL

A third order level line was run through the quadrangle by Mr. M. A. Stewart, Engr. Aid and bench marks were established at one mile intervals. 41.5 miles of fly levels were run to furnish supplemental control for contouring.

6. CONTOURS AND DRAINAGE

Contouring was done on nine lens 1:20,000 scale photographs by the planetable method. The contour interval is five feet. The elevations in the quadrangle range from 1 to 49 feet, the highest elevations being in the northeastern part. The terrain is rugged along Blount and Durham Creeks.

7. MEAN HIGH-WATER LINE

Not applicable.

8. LOW-WATER LINE

Not applicable.

9. WHARVES AND SHORE LINE STRUCTURES

Not applicable.

10. DETAILS OFFSHORE FROM THE HIGH-WATER LINE

Not applicable.

11. LAND MARKS AND AIDS TO NAVIGATION

Not applicable.

12. HYDROGRAPHIC CONTROL

Not applicable.

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13. LANDING FIELDS AND AERONAUTICAL AIDS

There are no landing fields or aeronautical aids in this quadrangle.

14. ROAD CLASSIFICATION

All roads were classified in accordance with <sup>\*</sup>Photogrammetry Instructions No. 10, dated 14 April 1947, as amended 24 October 1947.

15. BRIDGES

There are no bridges over navigable waters in this quadrangle.

16. BUILDINGS AND STRUCTURES

The field inspection of buildings and structures was completed in accordance with the Director's letter dated 9 September 1948 and prior to receipt of Photogrammetry Instructions No. 29 dated 1 October 1948. *\* All Photogrammetry Instructions filed in Div. Photogr. office files.*

17. BOUNDARY MONUMENTS AND LINES

For descriptions of all boundary monuments and lines in this project, see special report by Wilber H. Nelson which will be submitted at a later date. *Filed in Div. Photogr. general files.*

18. GEOGRAPHIC NAMES

This will be the subject of a special report which will be submitted by Wilber H. Nelson at a later date. *Filed in Geographic Names Section Div. of Charts.*

Submitted

Date:

*John R. Smith*

John R. Smith  
Engr. Aid

Approved:

Date

*Riley J. Sipe*  
Riley J. Sipe  
Chief of Party

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REPORT ON MAIN RADIAL PLOT  
No. 1 FOR PH-20(47)  
NORTH CAROLINA

21. AREA COVERED:

This report is on the main radial plot for quadrangles T-8987 and T-8988.

The sketch (page 5) submitted as a part of this report, shows the relative position in the project, part of the project limits and photographs and control used in this radial plot.

22. METHOD:

The hand templet method was used for laying this radial plot.

Both quadrangles are of 7° 30" latitude and longitude in extent, 1: 20,000 scale with the 10,000-foot grid of the North Carolina Lambert Grid System ruled on the projections.

RADIAL PLOT:

Five base grids were matched and taped together to give a grid area of 160,000 feet east and 150,000 feet north.

All of the horizontal control recovered by the field party was plotted on the map manuscripts and checked, using beam compass and meter bar. Substitute stations identified for controlling the radial plot were plotted graphically unless the substitute station was more than 1,000 feet from the main station, or more than one instrument set up was made. For substitute station traverses of over 1,000 feet or more than one instrument set up, position computations were made and the substitute station plotted conventionally and checked.

Control to be used in the main radial plot was transferred from the map manuscripts to the base grid by matching the plane coordinate grid lines. Control stations falling outside the projection limits were stations which had been used in previous plots on Project Ph-5.

Forty-five control stations were identified to control this radial plot. Three of these stations fell outside of the project limits. Twenty-eight stations in quadrangles T-8978, T-8979, T-8980, T-8989 and T-8990 were used to extend the radial plot into these quadrangles to insure a good junction with subsequent radial plots. Forty-three control stations were identified by the substitute method, two of which were identified by pricking a photographic image which approximately represented one of the reference marks; two were natural objects, one of which was a lighted aid to navigation; the other a water tank which being obscured by trees necessitated several ground measurements to verify the identification.

The photographs used in this radial plot were nine-lens printed on water repellent paper and unmounted. Photographs used are Nos: 21654, 22190 to 22196, 22222 to 22223, 22234 to 22239, 22323 to 22332, 22337 to 22340 inclusive.

Symbols for control and pass points used on the photographs are in accordance with Photogrammetry Instructions No. 12 dated March 17, 1947.

Templets used in this radial plot were vinylite. Master templet No. 21682 furnished by the Washington Office was used to correct for paper distortion, chamber distortion and displacement.

Templets were constructed in the conventional manner except where fiducial marks were missing on the photographs. In these cases the junctions around the chamber were studied to determine an indication of scale, displacement and/or rotations. Taking this study into consideration the templet was adjusted to existing fiducial marks and the rays drawn.

Two preliminary plots were run beginning with templets 21654, 22196 and 22195 as apparently the best fixed templets and progressing westward and outward. Several pass points (which were not added in the original transfer of points) were added to the photographs and rays added to the templets at this time. Due to anomalies which developed around templet 22193 the main radial plot was postponed awaiting additional horizontal control from the field party in quadrangles T-8979 and T-8988.

Additional control was received from the field party May 12, 1949. This control was immediately transferred to the office photographs and additions made on the templets.

The third preliminary radial plot was run between May 23 and June 3 following the same sequence as previous preliminary plots.

The fourth preliminary plot was laid between June 6 and 10. During the last two preliminary plots considerable time was spent in isolating such errors as questionable cuts on pass points, control points or adjustment in construction of templets. During this plot it was determined that better results might be obtained by following a different sequence in laying the templets.

The final radial plot was begun June 13 and completed the same day. Templets 22338, 22239, 22237, and 22236 were laid first in that order. Templets 22196 through 22190 were laid next and in that order. Templets 21654, 22332 to 22328 were laid next in that order. This line of templets indicated that several pass points were not giving a tight intersection of rays. Templets 22195 through 22190 were pulled out of the plot and superposed on the photographs to evaluate various pass points. It was decided that most of the trouble lay in pass points which fell near the perimeter of the photograph. Where this occurred the symbol was removed from the photograph and ray removed from the templet. During this study of the photographs each ray on the templet which represented a pass point falling among heavy trees was labeled with a large green "T" thus giving a differentiation between the best pass points and those not so desirable.

Templets 22192, 22193, 22194, 22195, 22191 and 22190 were then laid in that order.

The final lay-down resulted in very tight closures at all positively identified control stations and pass-points with a very few rays requiring later investigation during the radial plot review.

Each pass point intersection was circled on the radial plot before transfer to the map manuscripts was begun. The map manuscripts were superposed on the radial plot and by adjusting to the grid lines the radial plot intersections were pricked and the transfer checked. This operation was completed June 15, 1949.

### 23 ADEQUACY OF CONTROL:

All of the required horizontal control stations positively identified were rigidly held, and along with other recovered and identified control complied with the project instructions.

The following is the only horizontal control station which warrants discussion:

1. Substitute station DURHAM 1933, identified as "doubtful" was transferred to all photographs and gave a tight intersection which fell 0.75 mm (15m) northwest of the plotted position. The

radial plot position, plotted substitute point position and the position of DURHAM 1933 all fell on the azimuth established by the field party. The final deductions were made, 1. The photographic image measured to was not the point pricked, or 2. There was an error in the taped distance. This station was not held.

24. SUPPLEMENTAL DATA:

No graphic control surveys were made or available for use in this radial plot.

25. PHOTOGRAPHY:

Photography seems adequate. Coverage and overlap were adequate in view of the distribution of horizontal control. The definition of the office photographs is very good except for several small areas near the extremity of the photographs in which double images appeared. When control points and pass points fell in these areas the rays were carefully investigated and in cases where they failed to hold they were "X"ed out and the points removed from the photograph.

In general the accuracy of transforming was satisfactory. However numerous photographs were printed with an indication of a slight rotation of various chambers. This caused no difficulty except in chambers where the fiducial marks were not reproduced on the office print. In the majority of the cases the supervisor of the radial plot section was consulted as to the best adjustment in making the templets.

During the radial plot it was observed that the following photographs were slightly tilted: Quadrangle T-8987 — photographs 22193 and 22236; quadrangle T-8988 — photograph 22194.

The tilt of these photographs was not considered sufficient to affect the radial plot.

26. GENERAL:

Review of photographs was completed June 24 and the manuscripts released for compilation.

Respectfully submitted,  
*Harold A. Duffy*  
Harold A. Duffy  
Cartographer

Approved and Forwarded:

*Ross A. Gilmore*  
Ross A. Gilmore, 2/15/49  
Chief of Party







## COMPILATION REPORT, T-8987

31. DELINEATION

The graphic method was used in delineation of this map manuscript. The photographs and field inspection were adequate.

32. CONTROL

Sufficient secondary control was established and placement was such that no difficulty was encountered in securing additional control necessary in the delineation of this manuscript.

33. SUPPLEMENTAL DATA

None.

34. CONTOURS AND DRAINAGE

Some difficulty was encountered in justifying the placement of drainage, swamp limits and contours. Most of these problems could be attributed to fuzziness of detail and extensive sketching.

It is believed that all major variances from the field survey have been included on the discrepancy overlay.

35. SHORELINE AND ALONGSHORE DETAILS

None.

36. OFFSHORE DETAILS

None.

37. LANDMARKS AND AIDS

None.

38. CONTROL FOR FUTURE SURVEYS

None.

39. JUNCTIONS

A satisfactory junction has been made with T-8978 to the north. A junction with T-8988 will be made after field edit. U. S. Geological Survey quadrangle VANCEBORO, N. C. edition of 1904 (lies to the west, with which no attempt at junction was made. There is no contemporary survey to the south. *Done*

40. HORIZONTAL AND VERTICAL ACCURACY

No statement.

46. COMPARISON WITH EXISTING MAPS

There are no existing topographic or planimetric maps of this area.

47. COMPARISON WITH NAUTICAL CHARTS

Comparison has been made with U.S.C.&G.S. Nautical Chart No. 537, scale 1:40,000, published Sept. 1937 (4th edition) corrected to 12 Jan. 1948.

There is no shoreline on this manuscript.

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY

None.

ITEMS TO BE CARRIED FORWARD

None.

*John C. Richter*  
John C. Richter  
Cartographic (Photo) Aid

Approved and Forwarded

*Arthur L. Wardwell*  
Arthur L. Wardwell  
Chief of Party

**T-8987**

### CONTROL STATIONS

### ALONGSHORE AREAS

[illegible]

~~2008 standards~~ 21. Natural ground cover JG 22. Planetable contours JG, ~~2008 standards~~  
~~2008 standards~~ 24. Contours in general JG 25. Spot elevations JG 26. Other physical  
features JG

27. Roads JG 28. Buildings JG 29. Railroads JG 30. Other cultural features JG

31. Boundary lines JG ~~XXXXXXXXXXXXXXXXXXXX~~

33. Geographic names JG 34. Junctions JG 35. Legibility of the manuscript JG 36. Discrepancy overlay JG 37. Descriptive Report JG 38. Field inspection photographs JG 39. Forms JG

41. Remarks (see attached sheet)

42. Additions and corrections furnished by the field completion survey have been applied to the manuscript. The manuscript is now complete except as noted under item 43.

Supervisor

M-2623-12

FIELD EDIT REPORT  
Quadrangle T-8987

Project Ph-20(47)

Harry F. Garber, Chief of Party

51. METHODS

The field edit of this quadrangle was accomplished by traversing, via truck, all passable roads, and walking to other areas in which the reviewer requested information, and for a general check on the adequacy of the map compilation.

Corrections and additions were made by visual inspection in conjunction with standard survey instruments.

All deletions have been noted on the field edit sheet. Additions and corrections have been noted on the field edit sheet and field photographs numbers 22191 and 22192. All work shown on the photographs is properly referenced on the discrepancy prints or field edit sheet.

The reviewer's questions are answered on the discrepancy prints whenever possible.

A legend appears on the field edit sheet indicating the different colored inks used for the various additions, corrections and deletions.

Geographic names revision appears on the geographic names print.

52. ADEQUACY OF COMPILATION

The map compilation, in general, is adequate and will be complete after field edit data has been applied.

53. MAP ACCURACY

In general, the accuracy of the map is good.

Corrections to contours for drainage were required throughout the entire quadrangle. Two vertical accuracy tests were

made on the east central portion of this area. Number one had a closure of 0.12 feet, low, and number two had a closure of 0.48 feet, low.

A large error in elevation was found in the vicinity of Lat.  $35^{\circ}-18.3'$ , Long.  $76^{\circ}-57.6'$ . It is evident that the rodman held the rod on the ground at "C. of E. Mon. 27, 1943, El. 38.84 feet" instead of on top the monument. ✓

#### 54. RECOMMENDATIONS

None.

#### 55. EXAMINATION OF PROOF COPY

It is believed that Mr. R. R. Bonner, Land Surveyor, of Aurora, N. C., is best qualified to examine a proof copy of this area.

Reference to item 17 (Boundary Monuments and Lines) Field Inspection Report.

Mr. B. O. Jones, Craven County Auditor, New Bern, N. C., states that Little Swift Creek is the dividing line between townships 1 and 2. He further stated that Mr. A. Wraight, U. S. Coast and Geodetic Survey, succeeded in getting the county commissioners to accept this aforementioned dividing line between townships 1 and 2 and it became such, by law, 28 April 1947.

Reference to item 18 (Geographic Names) Field Inspection Report.

#### Charted Name

#### Correct Name to be Charted

Phoenix Chapel

Phennia Chapel

✓ According to information received from the following persons Phennia Chapel is the correct name for this church.  
(Note: Mr. John Murry is pastor of this church.)

<u>Name</u>	<u>Address</u>	<u>Years in Community</u>
John Murry	Edward, N. C.	75
Minnie Keys	Blounts Creek, Rt. 2, N.C.	26
Edna Pritchard	" " " "	20

The name Flat Swamp Bridge no longer applies to this particular feature as it has been replaced by a culvert.

The name requested for the church north of Edward, N. C., is a denominational one only - First Christian Church.

#### 56. CONTOURS ALONG SPOIL BANKS

Reference to item 3 (Contours) Notes to Compiler - Field Inspection Report also Field Edit Sheet.

#### 57. JUNCTIONS

Reference to item 39 - Compilation Report.

A satisfactory juncture has been made with quadrangle T-8988 to the east; quadrangle T-8978 to the north has not been received, and there are no contemporary surveys on the west or south.

*Junction verified by reviewer.*

Submitted:  
22 September 1950

*James E. Hundley*  
James E. Hundley *by H.F.G.*  
Cartographer

Approved:  
28 September 1950

*Harry F. Garber*  
Harry F. Garber  
Chief of Party

48. GEOGRAPHIC NAME LISTATLANTIC COAST LINE R.R. (Washington and Vandemere)BEAUFORT COUNTYBLOUNTS CREEK (Community)BLOUNTS CREEK P.O.BUSHY FORK BRANCHCAYTONCHOCOWINITY TOWNSHIPCORE POINT ROADCOXS CROSSROADSCRAVEN COUNTYDurham Creek (if any of it is here)EDWARDFLAT SWAMP BRIDGE (to be checked by F.E.)LITTLE SWIFT CREEKFirst Christian ChurchNEW HAVEN CHURCHNORTH CAROLINAPAMLICO RIVER (for title)PHOENIX CHAPELPOUNDPOL SWAMP BRANCHPhennia ChapelRICHLAND TOWNSHIPSMYRNA CHURCHST. ANNA CHURCHST. LUKE CHURCHSTATE NO. 33STILLEY STATIONTOWNSHIP NO. 1TOWNSHIP NO. 2TRIUMPH CHURCHTUNSTALL ROADWALKER ROADWARREN CHAPEL

Names underlined in  
red are approved (after  
Field Edit. 3-19-52  
L. Heck

REVIEW REPORT T-8987  
Topographic Map  
27 March 1952

62. Comparison with Registered Topographic Surveys

T-1210                      1:20,000                      1871

This map supersedes T-1210 for nautical charting purposes.

63. Comparison with Maps of other Agencies

None

64. Comparison with Contemporary Hydrographic Surveys

None

65. Comparison with Nautical Charts

No. 537                      1:40,000                      ed. 1937                      corr. 6/11/51

There are no significant differences between T-8987 and the chart. Only the north portion of T-8987, which does not contain shoreline or water area, is common to the chart.

67. Adequacy of Results and Future Surveys

This map complies with national map accuracy standards. It is adequate as a base for construction of nautical charts.

68. Geographic Names

A list of geographic names, approved by the Geographic Names Section, Division of Charts, is attached (item 48).

Reviewed by:

K. N. Maki  
K. N. Maki

Approved by:

S. V. Lippish 1/12/53  
Chief, Review Section  
Div. of Photogrammetry

J. S. Reading  
Chief, Div. Photogrammetry

H. C. Edmundson  
Chief, Nautical Charts Branch  
Division of Charts                      6FJ

Carl O. Heston  
Chief, Div. Coastal Surveys                      HFT