

9841

\*

Diag.Cht. No. 1231-2

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Topographic

Field No. Ph-61(49) Office No. T-9841

LOCALITY

State North Carolina

General locality Lake Phelps

Locality Conjunction of Hyde, Washing-  
ton, and Tyrrell Counties

194 52-54

CHIEF OF PARTY

H. F. Garber, Chief of Field Party

J. E. Waugh, Tampa Photogrammetric  
Office

LIBRARY & ARCHIVES

DATE April 19, 1957

B-1870-1 (1)

9841

## DATA RECORD

Page 1

T - 9841

Project No. (II): **Ph-61(49)**      Quadrangle Name (IV):Field Office (II): **Edenton, North Carolina**Chief of Party: **Harry F. Garber**Photogrammetric Office (III): **Tampa, Florida**Officer-in-Charge: **J. E. Waugh**Instructions dated (II) (III): **15 June 1951**Copy filed in Division of  
Photogrammetry (IV)*Office Files*Method of Compilation (III): **Graphic**Manuscript Scale (III): **1:20,00**Stereoscopic Plotting Instrument Scale (III): **Inapplicable**Scale Factor (III): **None**

Date received in Washington Office (IV):

**MAY 14 1953**

Date reported to Nautical Chart Branch (IV):

**MAY 21 1953**

Applied to Chart No.

Date:

Date registered (IV): **3-25-57**

Publication Scale (IV):

Publication date (IV):

Geographic Datum (III): **N. A. 1927**Vertical Datum (III): **MSL**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 waterReference Station (III): **271 NCOS, 1934 (on T-9842)**Lat.: **35° 37' 51".205 (1578.1 m.)** Long.: **76° 19' 19".700 (495.7 m.)**

Adjusted

~~Unadjusted~~

Plane Coordinates (IV):

State: **N.C.**

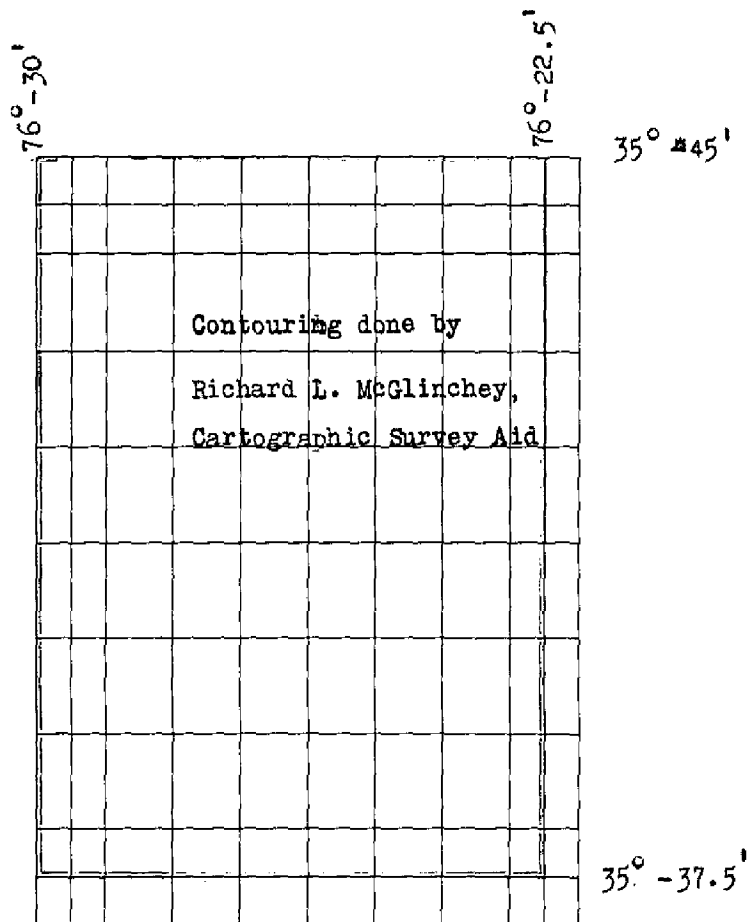
Zone:

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.



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



## DATA RECORD

Field Inspection by (II): **Richard L. McGlinchey,**  
Cartographic Survey Aid Date: **September and  
October, 1951**

Planetable contouring by (II): **Richard L. McGlinchey,**  
Cartographic Survey Aid Date: **September and  
October, 1951**

Completion Surveys by (II): *James E. Hundley* Date: *Feb. 1954*

Mean High Water Location (III) (State date and method of location): ~~Date of photographs~~  
*Inapplicable - non-tidal water only site* ~~Air photo compilation~~

Projection and Grids ruled by (IV): **J. A. (W.O.)** Date: **28 Jan. 1952**

Projection and Grids checked by (IV): **H. D. W. (W.O.)** Date: **2 Feb. 1952**

Control plotted by (III): **None** Date:

Control checked by (III): **None** Date:

Radial Plot ~~or Stereoscopic~~  
Control extension by (III): **M. M. Slavney** Date: **19 Sept. 1952**

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

Contours Date:

Manuscript delineated by (III): **R. Dossett** Date: **13 April 1953**

Photogrammetric Office Review by (III): **J. A. Giles** Date: **15 April 1953**

Elevations on Manuscript  
checked by ~~xxx~~ (III): **J. A. Giles** Date: **14 April 1953**



Camera (kind or source) (III): USC&GS Nine-lens,  $8\frac{1}{4}$  inch focal length

## PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide
33164	17 Mar. 1952	1153	1:20,000	Inshore quadrangl.
33165	"	1154	"	" "
33166	"	1155	"	" "
33184	"	1221	"	" "
33185	"	1222	"	" "
33186	"	1223	"	" "
33187	"	1224	"	" "
33192	"	1235	"	" "
33193	"	1236	"	" "
33194	"	1237	"	" "
33195	"	1238	"	" "

## Tide (III)

## INSHORE QUADRANGLE

Reference Station:

Subordinate Station:

Subordinate Station:

Ratio of Ranges	Mean Range	Spring Range

Washington Office Review by (IV):

Date:

Final Drafting by (IV):

*F. Johnson*

Date: 11-2-55

Drafting verified for reproduction by (IV):

Date:

Proof Edit by (IV):

Date:

Land Area (Sq. Statute Miles) (III): 60.5

Shoreline (More than 200 meters to opposite shore) (III): 4.5

Shoreline (Less than 200 meters to opposite shore) (III): 0

Control Leveling - Miles (II): \*

Number of Triangulation Stations searched for (II): 0

Recovered: 0

Identified: 0

Number of BMs searched for (II): 0

Recovered: 0

Identified: 0

Number of Recoverable Photo Stations established (III): 0

Number of Temporary Photo Hydro Stations established (III): 0

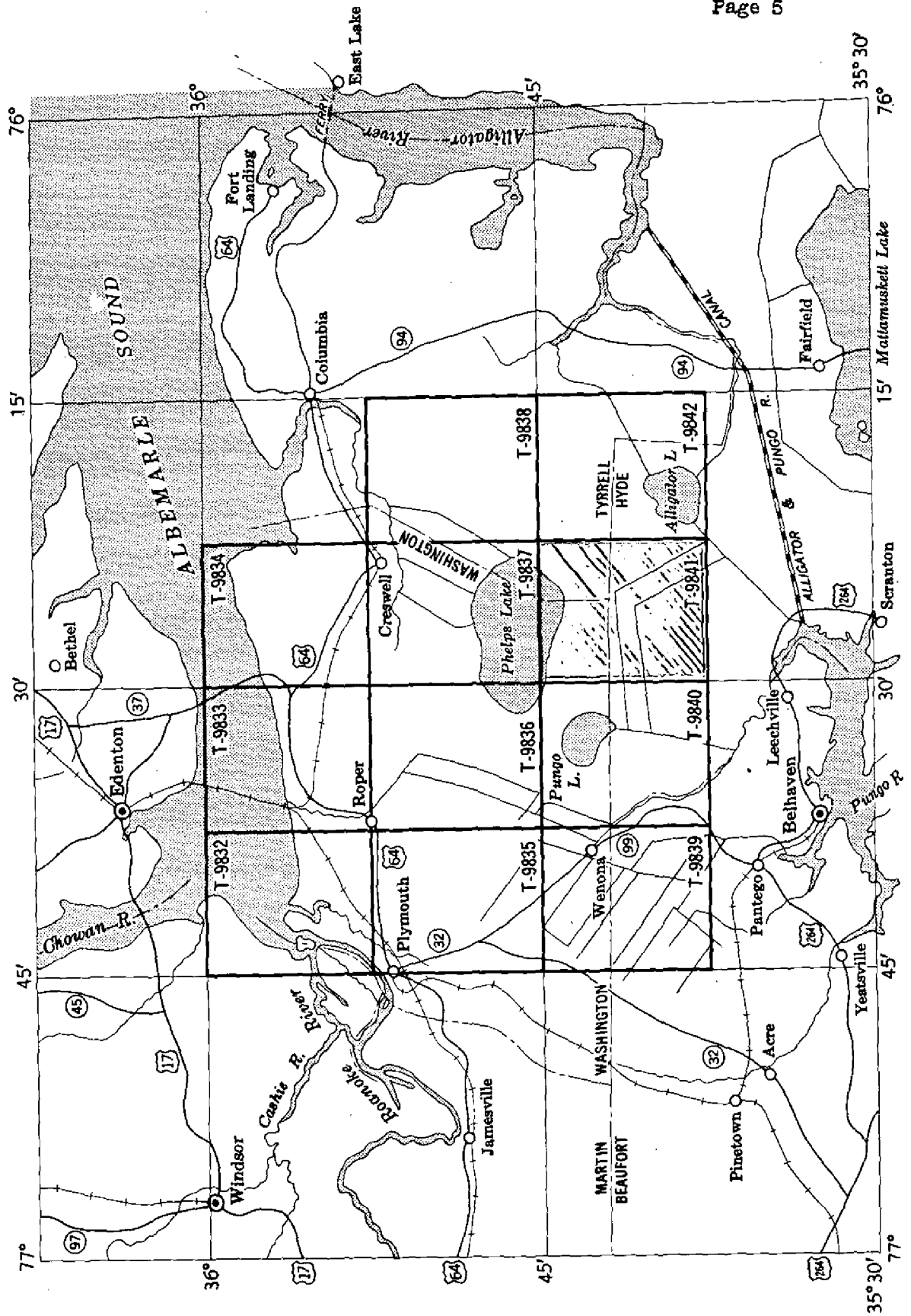
Remarks:

(\*) All level lines were run by plane table methods.

# TOPOGRAPHIC MAPPING PROJECT PH-61-(49)

## NORTH CAROLINA, Albemarle Sound and Vicinity

Compilation scale 1:20,000





Summary to Accompany Topographic Map T-9841

Topographic map T-9841 is one of eleven similar maps of project Ph-61(49). It covers a portion of Phelps Lake and some land area to the southward within Hyde and Tyrrell Counties in North Carolina.

Project Ph-61(49) is a graphic compilation project. Field work in advance of compilation included the establishment of additional control, complete field inspection, the delineation of 5-foot contours directly on the photographs by plane-table methods, and the investigation of civil boundaries and geographic names.

Map T-9841 was compiled at a scale of 1:20,000 using nine-lens photographs taken in 1951. The map was field-edited.

Items registered under T-9841 will include a descriptive report, a copy at 1:20,000 scale of the map manuscript and a copy of the published map.

FIELD INSPECTION REPORT  
Quadrangle T-9841  
Project Ph-61(49)

Harry F. Garber, Chief of Party

The field work for this quadrangle was done in accordance with instructions for Ph-61(49) as listed on Page 1.

2. AREAL FIELD INSPECTION

The sixty square miles contained in this quadrangle are completely undeveloped, with the exception of three drainage canals. There are no roads, buildings or cultivated areas. The Roper Lumber Company, owner of almost all the land within the quadrangle, has plans for limited lumber operations in the near future. The land in and around the quadrangle is continuously harassed by fire. Generally every five or six years a fire will sweep the entire area and only burn itself out on reaching wet areas. See § 51

No difficulty was encountered in the interpretation of the photographs. Small errors of horizontal closures were acquired in traversing long lines with no scale factor applied.

3. HORIZONTAL CONTROL

There were no horizontal control stations within the quadrangle. For control transferred from Ph-20 see special report submitted with quadrangle T-9839.

4. VERTICAL CONTROL

There are no bench marks within the quadrangle. Controlling elevations for contouring was established by the following method:

(a) A closed fly level line was run from a third-order bench mark in the vicinity of Pike Road, T-9839 eastward into quadrangle T-9840 to a stake at the junction of ~~Hyde Park~~ <sup>Phelps Lake</sup> and Huntinghouse Canals. A line of plane table elevations was run from this stake east-northeast to the water level on the south shore of Phelps Lake, quadrangle T-9841. The water level of the lake was tied to fly level point 37-15 the same day with a closing error of 0.3 foot.



(b) An elevation on a stake, where the canal turns in T-9841, was left along the above-mentioned line. A plane table line was run from this stake to the water level along the north-west shore of New Lake. The water level was tied to the fly level elevation of 9.76 feet left on N.C.G.S. 274, USE, 1934 in 1949 on Project Ph-20(47). This monument is in quadrangle T-9842. The error of closure was 0.2 foot.

(c) Additional elevations were obtained in the southwest portion of T-9841 from fly level points from T-9871, Project Ph-20(47).

(d) A line was run from the water level on Phelps Lake south-eastward to the quadrangle limits in the northeast portion of T-9841. The water level had been determined from fly level point 37-15.

(e) Various spur lines were run from the above-mentioned lines which made satisfactory junctions with T-9871.

There were no designated fly level points within the quadrangle.

#### 5. CONTOURS AND DRAINAGE

Contouring was done by plane table methods directly on nine-lens photographs. Elevations range from 11 to 18 feet, so only the 15-foot contour appears. This follows close along the south shore of Phelps Lake and around the eastern and southern edges of the quadrangle.

The highest elevation of 18.5 feet is near the center of the quadrangle, and the natural drainage is in all directions from the slightly higher ground. The ground falls away gradually to Phelps Lake to the north, the Alligator River and New Lake to the east, the Pungo River to the south, and Pungo Lake and Pungo River to the west. However, the gradients are very slight so that most of the drainage is by seepage.

Some years ago the Hyde Park Development Company attempted to drain this land for agriculture by digging the canals appearing on the photographs. This has helped the drainage in the area immediately adjacent to the canals, but numerous laterals would be needed for extensive cultivation. The survey camp party could obtain water for utility purposes at a depth of from one to two feet within the open areas.

#### 6. WOODLAND COVER

The entire area is marginal and extremely difficult to classify as to wet or dry ground.

The ground is predominantly peat overlaid with decaying vegetation of varying thickness. The Bureau of Soils\* shows the entire area as "peat" on their soil maps, however, even in open areas the ground is quite firm and will support a jeep or tractor. Most of the quadrangle was surveyed from a jeep. Inhabitants of surrounding towns frequently hunt in the area with large-tired vehicles and tractors. The area can be walked without too much difficulty. The vegetation is principally upland grasses, gallberry bushes, pine and some bay averaging around 6 feet in height. These areas were classified as open rather than upland "marsh" as penetration can be made into the area by foot and certain types of vehicles.

As the cover gave way from grasses, low bushes and scrub pine to a good stand of pine in the eastern part of the quadrangle, the classification was changed from "open" to "trees". This is not a fixed line as there is a gradual increase in the density of the trees as you progress eastward.

The quadrangle was inspected by foot, jeep and plane.

#### 7. SHORELINE AND ALONGSHORE FEATURES

The ~~mean~~<sup>SNL</sup> high water line along Phelps Lake is depicted on the photographs. The water level is controlled by locks on four canals leading north from the lake.

#### 8. OFFSHORE FEATURES

Not applicable.

#### 9. LANDMARKS AND AIDS

Not applicable.

#### 10. BOUNDARIES, MONUMENTS AND LINES

See a special report on Investigation of Boundaries by James E. Hundley, Cartographer. *This report filed in the Div. of Photogrammetry under project data.*

#### 11. OTHER CONTROL

Not applicable. *None.* <sup>SNL</sup>

#### 12. OTHER INTERIOR FEATURES

Except for the above-mentioned canals, there are no man-made features within the quadrangle. *A small segment of a trail at w. side of map.* <sup>SNL</sup>



13. GEOGRAPHIC NAMES

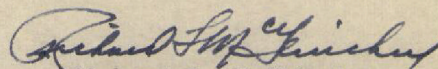
This is the subject of a special report by James C. Cregan, Cartographic Survey Aid. *This report is filed in Geographic Names Sect., Div. of Charts.*

14. SPECIAL REPORTS AND SUPPLEMENTAL DATA

Other than paragraphs <sup>3</sup>10 and 13, there are no special reports pertaining to this quadrangle.

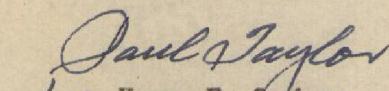
19 December 1951

Submitted by:

  
Richard L. McGlinchey,  
Cartographic Survey Aid

19 December 1951

Approved by:

  
for Harry F. Garber  
Comdr., USC&GS  
Chief of Party

# PHOTOGRAMMETRIC PLOT REPORT

This report covers all maps of Project Ph-61(49) and is filed as part of the Descriptive Report for T-9834.





Technical Assistant to Chief  
Division of Photogrammetry

12 June 1952

A. N. Cravat

Reshaping Contours - Project #H-61 - North Carolina

The field records for Project #H-61 - Albemarle Sound, North Carolina, were examined early in 1952 by Mr. Menavich. As a result of this examination it was decided to reshape some of the contours in the Washington Office. (Ref. letters 73-aki dated 8 February and 22 April 1952, signed Chief, Division of Photogrammetry)

In selecting photographs for contour reshaping, Mr. Menavich's report has been relied upon completely. Only those photographs mentioned in his report, Nos. 33136 thru 33141, 33151, 33152A, 33169 and 33170 were considered for reshaping.

Methods used:

Prior to reshaping the contours, each photograph was examined stereoscopically to determine whether or not the contours followed the shape of the land. This examination was not profitable in that the relief is generally smooth and not conducive to good stereopsis. A few omitted drains were found, however.

In my opinion the contours probably are of satisfactory accuracy, but lack the necessary professional appearance. Wherever practicable this situation was remedied by resketching the contours on acetate overlays that were taped to the appropriate photographs.

Brief notes on the individual photographs follow:

Photographs Nos. 33140 and 33141

The contours appear too stiff and have a jagged pinched appearance. The tension in the contours was relieved by smoothing the contours and by dropping the bottom contour and raising the top contour less than 0.5 m.

Special notes are added to the overlays wherever verification by the field editor will be required.

Photographs Nos. 33152A, 33169 and 33170

Contours on these photographs were smoothed out and harmonized by sketching contours more nearly parallel.

COPY

-2-

Photographs Nos. 13136, 13137 and 13151

No contour revisions were made. These contours do not have a pleasing appearance, primarily because of poor drafting. I believe that the act of transferring these contours from the photographs to the manuscript will improve their appearance. Any changes that I could make would be purely from an esthetic point of view. The accuracy tolerances preclude any meddling without additional field information.

Photographs Nos. 13166, 13167, 13193 and 13194

On these photographs, long stretches of the 15' contour are not supported by elevations and in some instances the 15' contour is shown by the approximate contour symbol.

All contours in the project are to be delineated as surveyed, (solid line, not dashed) even though the field party has used the approximate contour symbol.

Early in June, the Chief, Division of Photogrammetry, his technical assistant, and Mr. Grane visited the field party, and a discussion regarding these contours was held. As a result of this discussion it was concluded that all the contours on the project are to be compiled as surveyed (solid lines, not dashed) even though long stretches are unsupported by field elevations.

During the discussion it was learned that the field party had held back information on the field photographs. Additional evidence and information that was presented during the discussion was accepted as satisfactory reasoning for showing the contours by solid lines.

Suggested Compilation Methods:

The revised contours are to be compiled from the overlays, and not from the photographs. Elevations are to be compiled directly from the photographs.

Each overlay is registered to its respective photograph by common planimetric details. In compiling the contours the overlays should be taped accurately in position on the photographs and details compiled in the usual manner, with the exception that the contours will be traced from the overlays. It is believed that photographic details show through the overlays sufficiently to permit this.

/Initials/ E A C  
Harland A. Cravat  
13 June 1952

COPY



COMPILATION REPORT T-9841

PHOTOGRAMMETRIC PLOT REPORT

This report was submitted with T-9834.

31. DELINEATION.

The graphic method was used.

The vegetation inspection was not sufficiently comprehensive for the compiler to adequately determine the limits of "open" and "wooded" areas. The field inspector attempted to break down these areas by showing short, unclosed, broken lines on the field inspection photographs with the labels "T" and "open". Since these lines were not closed, the compiler attempted closure himself through photographic interpretation. The tone values of the field photographs and the office photographs differ to the extent that considerable difficulty was encountered. The delimitations of such areas are to be considered as approximate.

32. CONTROL.

No primary control has been established within the limits of this quadrangle.

Sufficient secondary control was established and placement was such that no difficulty was encountered in securing detail points.

33. SUPPLEMENTAL DATA.

None

34. CONTOURS AND DRAINAGE.

The drainage was delineated as shown on the photographs.

The contours have been delineated as shown by the field inspector.

35. SHORELINE AND ALONGSHORE DETAILS.

The shoreline of LAKE PHELPS has been delineated according to field inspection notes.

No low-water or shoal line was shown.

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-9837 on the north, T-9840 on the east, T-9842 on the west and T-8971 on the south.

See §67

40. HORIZONTAL AND VERTICAL ACCURACY.

No statement.

See §66

46. COMPARISON WITH EXISTING MAPS.

The only map available for comparison was the U. S. Corps of Engineers Quadrangle "Columbia N. C." compiled in 1942, scale 1:125,000. No outstanding differences were noted.

47. COMPARISON WITH NAUTICAL CHARTS.

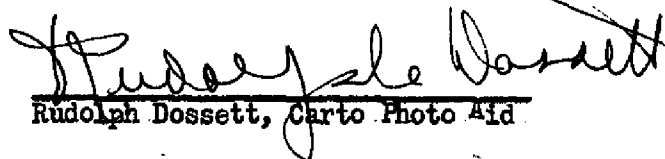
Area not covered.

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY.

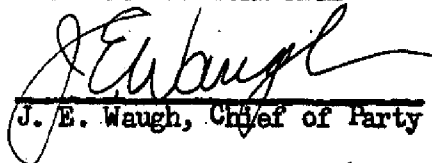
None.

ITEMS TO BE CARRIED FORWARD.

None.

  
Rudolph Dossett, Carto Photo Aid

APPROVED AND FORWARDED

  
J. E. Waugh, Chief of Party



FIELD EDIT REPORT  
Project Ih-61(49)  
Quadrangle T-9841

51. METHODS

The field edit of this area was accomplished by standard surveying methods in conjunction with visual inspection. Actual field work was completed in February 1954.

Field edit data appears on field photograph 33192.

52. ADEQUACY OF COMPIATION

The map compilation is adequate and will be complete after field edit data is applied.

53. MAP ACCURACY

The horizontal accuracy of the map detail is relatively good.

The accuracy of the contouring, in general, is good.

See § 61

54. RECOMMENDATIONS

\* Recommend that item "55 - Examination of Proof Copy" of this report be discontinued for the following reason: It is believed that the field editor does a more thorough job of checking the accuracy of compilation of any area than some uninterested individual.

55. See item "54" of this report.

56. AREAL FIELD INSPECTION

Refer to item "2 - Field Inspection Report".

No changes of any description, except that noted on photograph 33192, have been made in this area since the 1951 survey.

57. JUNCTIONS

Satisfactory junctions have been made with all adjacent contemporary quadrangles.

Respectfully submitted.  
30 March 1954

Approved

*E. H. Kirsch*

E. H. Kirsch, Comdr. USC&GS  
Officer in Charge

\*  
*James E. Hundley*  
James E. Hundley  
Cartographer

I believe that a strong effort should be made to find one or more residents in the area who are intimately acquainted with the area, and who are interested and qualified, to examine a proof copy for errors.

E. H. Kirsch



50.

## PHOTOGRAMMETRIC OFFICE REVIEW

T- 9841

1. Projection and grids J.G. 2. Title J.G. 3. Manuscript numbers J.G. 4. Manuscript size J.G.

## CONTROL STATIONS

5. Horizontal control stations of third-order or higher accuracy M.M.S. 6. Recoverable horizontal stations of less than third-order accuracy (topographic stations) XX 7. Photo hydro stations XX 8. Bench marks XX 9. Plotting of sextant fixes XX 10. Photogrammetric plot report J.G. 11. Detail points J.G.

## ALONGSHORE AREAS

(Nautical Chart Data)

12. Shoreline J.G. 13. Low-water line XX 14. Rocks, shoals, etc. XX 15. Bridges XX 16. Aids to navigation XX 17. Landmarks XX 18. Other alongshore physical features XX 19. Other along-shore cultural features XX

## PHYSICAL FEATURES

20. Water features J.G. 21. Natural ground cover J.G. 22. Planetable contours J.G. 23. Stereoscopic instrument contours XX 24. Contours in general J.G. 25. Spot elevations J.G. 26. Other physical features J.G.

## CULTURAL FEATURES

27. Roads XX 28. Buildings XX 29. Railroads XX 30. Other cultural features J.G.

## BOUNDARIES

31. Boundary lines J.G. 32. Public land lines XX

## MISCELLANEOUS

33. Geographic names J.G. 34. Junctions J.G. 35. Legibility of the manuscript J.G. 36. Discrepancy overlay J.G. 37. Descriptive Report J.G. 38. Field inspection photographs J.G. 39. Forms J.G.40. Jesse A. Giles  
Jesse A. Giles  
ReviewerWilliam A. Rasure  
William A. Rasure  
Supervisor, Review Section or Unit

41. Remarks (see attached sheet)

FIELD COMPLETION ADDITIONS AND CORRECTIONS TO THE MANUSCRIPT *by Tampa. ENR*

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.

\_\_\_\_\_  
Compiler\_\_\_\_\_  
Supervisor

43. Remarks:

Review Report  
Topographic Map T-9841  
3 January 1955

62. Comparison with Registered Topographic Surveys: None.

63. Comparison with Maps of Other Agencies

Columbia Quadrangle (C. of E. 1:125,000) 1943

A visual comparison reveals no significant differences.

64. Comparison with Contemporary Hydrographic Surveys

Inapplicable.

65. Comparison with Nautical Charts

This area is not covered by existing nautical charts.

66. Adequacy of Results and Future Surveys

This map meets the National Standards of Map Accuracy and complies with project instructions.

67. Junctions

Differences along the junction between T-9841 and T-8971 result from cultural changes since T-8971 was surveyed.

Reviewed by:

Everett H. Ramey  
Everett H. Ramey

Approved by:

Lester C. Rande  
Chief, Review & Drafting Sec.  
Division of Photogrammetry

Will Swanson  
Chief, Div. of Photogrammetry

5 April '57

Max Skellett  
Chief, Nautical Chart Branch  
Division of Charts  
Samuel B. French  
Ray J. Bowie  
Chief, Division of Coastal  
Surveys



48. GEOGRAPHIC NAME LIST.

- CURRITUCK TOWNSHIP ✓
- HYDE COUNTY ✓
- HUNTINGHOUSE CANAL HUNTINGHOUSE CANAL (OK: L. Heck, 5-27-53) ✓
- LAKE CANAL ✓
- LAKE PHELPS *Lake* ✓
- NORTH CAROLINA
- OLD STATE CANAL ✓
- SCUPPERNONG TOWNSHIP ✓
- SOUTH FORK TOWNSHIP ✓
- THIRD TRIBUTARY ✓
- TYRRELL COUNTY ✓
- WASHINGTON COUNTY ✓
- WHITE CYPRESS TRIBUTARY ✓

Names approved  
8-17-53  
L. Heck

49. NOTES FOR THE HYDROGRAPHER.

None.