U.S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey: TOPOGRAPHIC
Field No.: Ph-20(17) Office No.: T-8972

LOCALITY
State: NORTH CAROLINA
General locality: PAMLICO SOUND
Locality: WATTAMUSKEET LAKE, NORTHWEST SECTION

CHIEF OF PARTY
E.R. McCarthy, Chief of Field Party,
A.L. Wardwell, Tampa Photogrammetric Office

LIBRARY & ARCHIVES
DATE: August 14, 1953
DATA RECORD

T-8972

Project No. (II): Ph-20 (47) Quadrangle Name (IV): New Lake SE, N.C.


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) 7-23-53 Date reported to Nautical Chart Branch (IV): 4-25-51

Applied to Chart No. Date: Date registered (IV): 7-23-53

Publication Scale (IV): 1:24,000 Publication date (IV): 10/51

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

Reference Station (III): SIXTEEN, 1935

Lat.: 35°34' 13.733 (423.2 m) Long.: 76°21' 24.068 (606.1 m) Adjusted

Plane Coordinates (IV):

State: North Carolina Zone: 

X = 

Y = 

Roman numerals indicate whether the item is to be entered by (I) Field Party, (II) 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)

W. P. Massie, Cartographic Survey Aid
H. G. Murphy, Cartographic Survey Aid
DATA RECORD

Field Inspection by (II): W. P. Massie, Cartographic Survey Aid
H. G. Murphy, Cartographic Survey Aid

Date: 11 October 1949 to 31 January 1950

Planetary contouring by (II): W. P. Massie, Cartographic Survey Aid
H. G. Murphy, Cartographic Survey Aid

Date: 14 October 1949 to 1 February 1950

Completion Surveys by (II): James E. Hindley

Date: 21 June 1951

Mean High Water Location (III) (State date and method of location):
Air Photo compilation

Date: 15 April 1949

Projection and Grids ruled by (IV): W. E. W. (W.O.)

Date: 2 June 1948

Projection and Grids checked by (IV): W. E. W. (W.O.)

Date: 2 June 1948

Control plotted by (III): B. F. Lampton

Date: 22 September 1948

Control checked by (III): R. R. Wagner

Date: 23 September 1948

Radial Plot

Graph

M. M. Slavney

Date: 16 August 1950

Stereoscopic Instrument compilation (III):

Inapplicable

Planimetry

Contours

Date: 15 January 1951

Manuscript delineated by (III): C. J. Downing

Date: 6 February 1951

Photogrammetric Office Review by (III): J. A. Giles

Date: 15 January 1951

Elevations on Manuscript
cHECKED (III): C. J. Downing

Form T-Page 3

H-2618-12(4)
### U.S.C. & G.S. Nine-lens 8¼" focal length

<table>
<thead>
<tr>
<th>Number</th>
<th>Date</th>
<th>Time</th>
<th>Scale</th>
<th>Stage of Tide</th>
</tr>
</thead>
<tbody>
<tr>
<td>21621</td>
<td>26 Jan. 1948</td>
<td>13:25</td>
<td>1:20,000</td>
<td>No periodic tide</td>
</tr>
<tr>
<td>21622</td>
<td>26 Jan. 1948</td>
<td>13:29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22154</td>
<td>29 Mar. 1948</td>
<td>13:00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22155</td>
<td>29 Mar. 1948</td>
<td>13:01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22156</td>
<td>29 Mar. 1948</td>
<td>13:02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24109</td>
<td>21 Dec. 1948</td>
<td>12:06</td>
<td></td>
<td></td>
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<tr>
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<td>12:07</td>
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<td></td>
</tr>
<tr>
<td>24112</td>
<td>21 Dec. 1948</td>
<td>12:09</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24121</td>
<td>21 Dec. 1948</td>
<td>12:24</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24122</td>
<td>21 Dec. 1948</td>
<td>12:25</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Tide (III)

**No periodic tide**

<table>
<thead>
<tr>
<th>Ratio of Ranges</th>
<th>Mean Range</th>
<th>Spring Range</th>
</tr>
</thead>
</table>

Washington Office Review by (IV): *K. N. Maki*  
Date: 2 May 1952

Final Drafting by (IV):  
Date:

Drafting verified for reproduction by (IV):  
Date:

Proof Edit by (IV):  
Date:

Land Area (Sq. Statute Miles) (III): 53  
Shoreline (More than 200 meters to opposite shore) (III): None  
Shoreline (Less than 200 meters to opposite shore) (III): None  
Control Leveling - Miles (II): 6.0  
Number of Triangulation Stations searched for (II): 9  
Recovered: 7  
Identified: 6  
Number of BMs searched for (II): None  
Recovered: 0  
Identified: 0  
Number of Recoverable Photo Stations established (III): 3  
Number of Temporary Photo Hydro Stations established (III): None  
Remarks:
Summary to Accompany T-3972

Topographic map T-3972 is one of a series of 32 maps in Project Ph-20(f). 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 7½ minute quadrangle. The registered copies under T-3972 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-8972  
35-30/37.5  76-15/22.5  
Project Ph-20 (47)  

E. R. McCarthy, Chief of Party  

The field work for this quadrangle was done in accordance with Instructions dated 23 July 1948 (Project Ph-20). Field work in addition to those phases listed on Pages 2-3, was done by the following personnel:

<table>
<thead>
<tr>
<th>Name and Title</th>
<th>Phase</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>H. G. Murphy</td>
<td>Horizontal Control</td>
<td>1 April 1949</td>
</tr>
<tr>
<td>Cartographic Survey Aid</td>
<td>Recovery and Shoreline</td>
<td>15 April 1949</td>
</tr>
</tbody>
</table>

This report is written in accordance with Paragraph 724 of the Preliminary Edition of the Topographic Manual dated June 1949.

2. AREAL FIELD INSPECTION  

About 5% of the area is cultivated, 30% intermittent swamp, 10% water (NW section of Mattamuskeet Lake), and the remainder true swamp.

There are no towns or villages in the quadrangle. A portion of the secondary road which connects U. S. Highway No. 264 with N. C. Highway No. 94 lies in the southeast section. A portion of the secondary road that connects U. S. Highway No. 264 with the village of New Lake lies in the northwest section. A portion of the Alligator River-Pungo River Canal of the Intracoastal Waterway cuts across the northern half of the quadrangle in a general east-west direction.

Small scale farming and lumbering is carried on along the northern shore of Mattamuskeet Lake. During the open seasons, the farmers augment their income by acting as guides or by renting their fields to the bear, goose, duck and deer hunters.

No difficulty was encountered in the interpretation of the photographs. Sufficient classifications were made so that the compiler should have no great amount of difficulty with the tones.

The field inspection is believed to be complete.
3. HORIZONTAL CONTROL

(a) No supplemental control was established.

(b) All stations are on the NA 1927 datum.

(c) Stations not established by the USC&GS are:

<table>
<thead>
<tr>
<th>Station</th>
<th>Agency</th>
<th>Order</th>
<th>Datum</th>
</tr>
</thead>
<tbody>
<tr>
<td>261, 1935</td>
<td>North Carolina Geodetic Survey</td>
<td>Third</td>
<td>NA 1927</td>
</tr>
<tr>
<td>262, 1934</td>
<td>North Carolina Geodetic Survey</td>
<td>Third</td>
<td>NA 1927</td>
</tr>
<tr>
<td>266, 1935</td>
<td>North Carolina Geodetic Survey</td>
<td>Third</td>
<td>NA 1927</td>
</tr>
<tr>
<td>271, 1934</td>
<td>North Carolina Geodetic Survey</td>
<td>Third</td>
<td>NA 1927</td>
</tr>
<tr>
<td>272, 1934</td>
<td>North Carolina Geodetic Survey</td>
<td>Third</td>
<td>NA 1927</td>
</tr>
<tr>
<td>POST, 1933</td>
<td>U.S. Engineers</td>
<td>Third</td>
<td>NA 1927</td>
</tr>
</tbody>
</table>

(d) Search was made for all known control. Stations reported as "lost" or "not recovered" are:

- 261, 1935 (NGCS) AZ Mark recovered
- 272, 1934 (NGCS)
- POST, 1933 (USE)

4. VERTICAL CONTROL

(a) There are no bench marks within the quadrangle.

(b) Six miles of fly levels were run extending from BM 5 (USAE) to close on BM 59 (NGCS) in Quad 8983. The error was negligible.

(c) The first and last fly level points were 72-1 and 72-12.

(d) Inapplicable.

5. CONTOURS AND DRAINAGE

The contouring was done by planar methods directly on nine-lens photographs, at a contour interval of five (5) feet.

The natural drainage is by seepage to Mattamuskeet Lake and Alligator River and its southern branch. New Lake drains into the main branch of the Alligator River on the east and into the State Canal (Quad 8971) on the south.

The natural drainage has been supplemented by the artificial canals such as the Dyke and other canals in the vicinity of the Mattamuskeet Lake which were dug primarily for agricultural purposes and the Alligator River-Pungo River Canal which was dug primarily for navigational purposes.
The effect of the artificial drainage has been, of course, to dry up the adjacent land. There is some complaint to the effect that the Alligator River-Pungo River Canal has salted the land.

The highest natural elevation (12 feet) is in the northwest section of the sheet—in the vicinity of New Lake. Some places on the spoil bank lies on the north bank of the Intracoastal Canal reach 19 feet.

Several elevations were determined on the water level of New Lake which elevations together with the dates taken are shown on the photographs.

6. WOODLAND COVER

The cover was classified in accordance with Paragraph 5433 of the Preliminary Edition of the Topographic Manual dated June 1949.

7. SHORELINE AND ALONGSHORE FEATURES

(a) Except as noted on Photos 22154 and 22156, the banks of the Alligator River-Pungo River Canal have undergone no change since photogra-phy.

(b) Since there is no periodic tide, the MHWL coincides with the MLWL.

(c) There is no foreshore.

(d) Bluffs.

Along the northern shore of the Intracoastal Waterways is a wide spoil ranging in width from 350 to 1100 feet with elevations ranging from 5 to 19 feet.

9. LANDMARKS AND AIDS

There are neither landmarks nor aids to navigation in this quadrangle.

10. BOUNDARIES, MONUMENTS AND LINES

These are covered in a "Special Boundary Report", which was submitted by Wilbur A. Nelson on 14 February 1949, and a Supplemental Report submitted by A. J. Wraight on 8 November 1949.

Filled in Div Photogrammetry general files.

One monument (#25) of the Mattamuskeet Lake Refuge is pricked on Photo 24122.
11. OTHER CONTROL

Recoverable Topographic Stations established are: Form 524 filed in Div. Photogrammetry files.

Acer, 1949
Hand, 1949
Hope, 1949

12. OTHER INTERIOR FEATURES

All roads and buildings have been classified in accordance with Paragraph 5441 and 5446 of the Preliminary Edition of the Topographic Manual dated June 1949. In accordance with published edition.

There are no bridges, cables over navigable waters, airports or landing field in this quadrangle.

13. GEOGRAPHIC NAMES

This report was submitted by A. J. Wraight on 15 January 1950. Filed in Geographic Names Section, Div. of Charts.

14. SPECIAL REPORTS AND SUPPLEMENTAL DATA

Except as noted in Paragraphs 10 and 13, there are no special data for this quadrangle.

15. SWAMP

Most of the area north of the Intracoastal Waterway is true swamp. The seasonally inundated areas were classified with the aid of the local inhabitants.

Some pine trees were found growing on small hammocks in true swamp areas.

Seasonally inundated areas were classified with the symbol 'Fia' and true swamp by the symbol 'Sw'.

16. NOTES BY CHIEF OF PARTY

The contouring was carried somewhat to the north of the quadrangle limits in order to complete the contours on the east shore of New Lake and in the upper section of the Alligator River.

10 February 1950
Submitted by: Walter P. Massie
Cartographic Survey Aid

Approved
10 February 1950
E. R. McCarthy
Photogrammetric Plot Report No. 5

This report covers the radial plot for maps T-8969 to T-8972 inclusive, T-8980 to T-8983 inclusive, and T-8992 and is filed as part of the descriptive report for T-8992.
<table>
<thead>
<tr>
<th>STATION</th>
<th>SOURCE OF INFORMATION</th>
<th>LATITUDE OR Y-COORDINATE</th>
<th>DISTANCE FROM GRID IN FEET OR PROJECTION LINE IN METERS</th>
<th>DATUM CORRECTION</th>
<th>FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>271(NCGS), 1934</td>
<td>NCGB 1927</td>
<td>35 37 51.205</td>
<td>1578.1(271.4)</td>
<td>1013.9</td>
<td>495.7</td>
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<tr>
<td>MILL, 1935</td>
<td>G.P. 297</td>
<td>35 34 59.966</td>
<td>1848.1(1.0)</td>
<td>37.8</td>
<td>1452.3</td>
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<tr>
<td>SIXTEEN, 1935</td>
<td>G.P. 297</td>
<td>35 34 13.733</td>
<td>423.2(1425.9)</td>
<td>904.8</td>
<td>606.1</td>
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<tr>
<td>262(NCGS), 1934</td>
<td>NCGB 218</td>
<td>35 32 08.833</td>
<td>272.2(1576.9)</td>
<td>59.2</td>
<td>1452.3</td>
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<tr>
<td>POST, 1933</td>
<td>SP. PUB</td>
<td>35 31 35.657</td>
<td>1098.9(750.2)</td>
<td>750.2</td>
<td>48.4(1463.3)</td>
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<tr>
<td>261 AZ. MK. (NCGS), 1934</td>
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<td>696.699.36</td>
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<tr>
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<td>3985.54(2014.4)</td>
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<td>661.326.24</td>
<td>1,326.24(867.3)</td>
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<tr>
<td>266(NCGS), 1935</td>
<td>NCGB</td>
<td>35 34 13.621</td>
<td>419.8(1429.4)</td>
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<tr>
<td>POST AZ. MK. 1933</td>
<td>COMP</td>
<td>35 31 17.759</td>
<td>547.3(1301.8)</td>
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</tbody>
</table>

Computation: 3048006 METER
Computed by: B.F. Lampton
Date: 22 September 1948
Checked by: R.R. Wagner
Date: 23 September 1948
COMPILATION REPORT - T-8972

PHOTOGRAMMETRIC PLOT REPORT.

Submitted with T-8992.

31. DECLINATION.

Compiled by graphic methods. No unusual methods were used. Field inspection was adequate, except for labeling of several areas of vegetation; these have been referred to the field editor for clarification. See item 54.

32. CONTROL.

Horizontal control was adequate. Identification, density and placement were good.

33. SUPPLEMENTAL DATA.

None used.

34. CONTOURS AND DRAINAGE.

No difficulty was encountered in the delineation of contours. Drainage was readily identifiable on the photographs and has been drafted accordingly.

35. SHORELINE AND ALONGSHORE DETAILS.

The shoreline inspection was adequate. No difficulty was encountered in delineation.

36. OFFSHORE DETAILS.

No unusual problems were encountered.

37. LANDMARKS AND AIDS.

No statement required.
38. **CONTROL FOR FUTURE SURVEYS.**

Three (3) topographic stations are being submitted on Form 524. These topographic stations have been listed and included under Item 49.

39. **JUNCTIONS.**

T-8971 to the west: in agreement
T-8973 to the east: in agreement
T-8983 to the south: in agreement

40. **HORIZONTAL AND VERTICAL ACCURACY.**

No statement required.

46. **COMPARISON WITH EXISTING MAPS.**

Comparison was made with U. S. C. of E. topographic quadrangle COLUMBIA, N.C., Scale of 1:125,000, edition dated 1943 and Planimetric Maps T-5567 and T-5568, scale 1:20,000, dated 1934. They appear to be in good agreement.

47. **COMPARISON WITH NAUTICAL CHARTS.**

Comparison was made with Nautical Chart 1231, scale 1:80,000, published November 1938, corrected to 27 January 1950.

It is believed that the planimetric maps listed in Item 46 are the source of topography of the nautical chart and the same statement regarding comparison applies.

**ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY.**

None.

**ITEMS TO BE CARRIED FORWARD.**

None.

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Approved and Forwarded:

Charles J. Downing
Photogrammetric Aid

---

Arthur L. Wardwell
Chief of Party
PHOTOGRAMMETRIC OFFICE REVIEW

T-8972


CONTROL STATIONS

ALONGSHORE AREAS
(Nautical Chart Data)

PHYSICAL FEATURES

CULTURAL FEATURES

BOUNDARIES
31. Boundary lines J.G.

MISCELLANEOUS

40. Jesse A. Giles
   Reviewer

41. Remarks (see attached sheet)

FIELD COMPLETION ADDITIONS AND CORRECTIONS TO THE MANUSCRIPT
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:
51. METHODS

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

Corrections and additions were made by standard surveying methods in conjunction with visual inspection.

All corrections, additions, and deletions have been shown on the field edit sheet.

The reviewer's questions are answered on the discrepancy print, field edit sheet and this report.

A legend appears on the field edit sheet which is self-explanatory.

The actual field work was accomplished during June, 1951.

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

The horizontal and vertical accuracy of the map detail is relatively good. Sec. 46.

54. RECOMMENDATIONS

None.

55. EXAMINATION OF PROOF COPY

It is believed that Mr. Joseph S. Mann, of Fairfield, N. C., is best qualified to examine a proof copy of this work.
Ref. to item 48 - Compilation Report.

Questionable Name - Boundary Canal

This feature was a part of the original boundary of the Lake Mattamuskeet Drainage District, a Hyde County development, and was excavated in 1915. All legal records since 1915 concerning this particular area, in Hyde County Courthouse, refer to this feature as the boundary canal. All maps of the U.S. Department of Agriculture, U.S. Department of the Interior, and N.C. Department of Conservation and Development, use the name Boundary Canal or Boundary Line Canal.

It is recommended that the name "Boundary Canal" be used.

56. DELINEATION

Ref. to item 31 - Compilation Report.

Reclassification of several areas of vegetation has been shown on the field edit sheet.

57. OTHER INTERIOR FEATURES

Ref. to item 12 - Field Inspection Report.

Reclassification of roads and buildings was made on the field edit sheet.

The widths of all major drainage ditches have been shown on the field edit sheet.

One new ditch, 8 feet wide, has been shown on the field edit sheet at Lat. 35°-30' 4", Long. 76°-19' 4".

58. HORIZONTAL CONTROL

Ref. to item 3 - Field Inspection Report.

The Azimuth Mark of Δ 261, 1935 (NGS) was visited and a new search was made for the station, but it could not be found. Form 526 is submitted.

59. JUNCTIONS

Satisfactory junctions have been made with adjacent quadrangles.

16 July 1951
Submitted by:
James E. Hundley
Cartographer

26 July 1951
Approved by:
Harry E. Gerber
Commander, USCGAOS
48. GEOGRAPHIC NAME LIST.

- ALLIGATOR RIVER
- ALLIGATOR RIVER - PUNGO RIVER CANAL
- *BOUNDARY CANAL (on Hyde Co. Highway map; also verified by Wraight. Check further)
- CURRITUCK TOWNSHIP
- FAIRFIELD TOWNSHIP
  FLORIDA CANAL
- GUM NECK TOWNSHIP
- HEAD LAKE ISLAND
- HYDE COUNTY
- INTRACOASTAL WATERWAY
- LAKE MATTAMUSKEET
- MATTAMUSKEET NATIONAL WILDLIFE REFUGE
- NEW LAKE (Pending with B.O.N.)
- NEW LAKE FORK
- NEW LAKE ROAD
- NORTH CAROLINA
- SWINDLELS CANAL
- TYRRELL COUNTY

*Name penciled on manuscript. This feature is called DYKE CANAL on field photograph 24121 and in Field Inspection Report. Discrepancy noted on overlay.

Names underlined in red are approved on basis of Wraight's report. Subject to final check by Field Edit. 4-24-51.

L. Heck

Re-checked after field Edit. 5-1-52.

L. Heck
Comparison with Registered Topographic Surveys:

T-5567  1:20,000  1934
T-5568  1:20,000  1934

T-3972 supersedes these surveys for nautical charting purposes.

Comparison with Maps of Other Agencies:

Columbia, N. C., U.S.E. quadrangle, 1:125,000, 1942

Comparison with Contemporary Hydrographic Survey:

None.

Comparison with Nautical Charts:

1231, 1:30,000, ed 1938, corr. 2/20/50

There are no significant differences between T-3972 and the charts.

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.

Reviewed by:

K. Maki

Approved:

S. V. Griffith  
Chief, revision section 2-18-35
Division of Photogrammetry

R. W. Edmondson  
Chief, nautical chart branch
Division of charts 6-50

O. J. Reading  
Chief, div. of photogrammetry

E. A. Heriot  
Chief, div. of coastal surveys