U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey: TOPOGRAPHIC
Field No: Ph-20(47), Office No: T-8973

LOCALITY
State: NORTH CAROLINA
General locality: PAMLICO SOUND
Locality: FAIRFIELD

1949

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

LIBRARY & ARCHIVES
DATE: August 7, 1953
DATA RECORD

T-8973

Project No. (II): Pb-20 (47)  Quadrangle Name (IV):

Photogrammetric Office (III): Tampa, Florida  Officer-In-Charge: Arthur L. Wardwell
Instructions dated (II) (III): 23 July 1948

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): /-23-57/  Date reported to Nautical Chart Branch (IV): /-30-57/  Applied to Chart No.  Date:

Publication Scale (IV): 1:24,000  Date registered (IV): /7-23-57/

Geographic Datum (III): N. A. 1927

Reference Station (III): JUNCTION 1935

Lat.: 35° 35' 36" 257 (1117.4m)  Long.: 76° 13' 54" 052 (1360.7m).

Plane Coordinates (IV):

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.
All contouring done by:

Egmont Ehm
Cartographic Survey Aid.

Areas contoured by various personnel
(Show name within area)
(11) (###)
DATA RECORD

Field Inspection by (II): Egmont Horn, Cartographic Survey Aid
Horizontal Control
Recovery

Planetale contouring by (II): Egmont Horn, Cartographic Survey Aid

Completion Surveys by (II): James E. Hundley

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

Air photo compilation 29 March 1948

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

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

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

Control checked by (III): B. F. LAMPTON

Radial Plot (III): M. M. SILOVEY

Stereoscopic Instrument compilation (III):

Planimetry
Contours

Inapplicable

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

J. A. Giles

Elevations on Manuscript checked by (III): R. DOSSETT

Date: 1 October 1949 to 15 November 1949

Date: 29 September 1949 to 15 November 1949

Date: 21-22 June 1951

Date: 6 February 1948

Date: 6 February 1948

Date: 13 October 1949

Date: 22 October 1949

Date: 27 July 1950

Date: 22 August 1950

Date: 14 December 1950

Date: 7 September 1950
PHOTOGRAPHS (III)

<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>22157</td>
<td>29 March 1948</td>
<td>13:03</td>
<td>1:20,000</td>
<td>No periodic tide</td>
</tr>
<tr>
<td>22158</td>
<td>29 March 1948</td>
<td>13:04</td>
<td>1:20,000</td>
<td></td>
</tr>
<tr>
<td>24123</td>
<td>21 March 1948</td>
<td>12:26</td>
<td>1:20,000</td>
<td></td>
</tr>
</tbody>
</table>

Tide (III)

Reference Station:  
Subordinate Station:  
Subordinate Station:  

Washington Office Review by (IV):  
Final Drafting by (IV):  
Drafting verified for reproduction by (IV):  
Proof Edit by (IV):  

Land Area (Sq. Statute Miles) (III): 41 sq. mi.  
Shoreline (More than 200 meters to opposite shore) (III): None  
Shoreline (Less than 200 meters to opposite shore) (III): None  
Control Leveling - Miles (II): 17.4  
Number of Triangulation Stations searched for (II): 7  
Number of BMs searched for (II): * 11  
Number of Recoverable Photo Stations established (III): 1  
Number of Temporary Photo Hydro Stations established (III): None  

Remarks:  
Third Order Level line Route 94 executed by this party.  

Eleven third order BMs were established.
Summary to Accompany T-3973

Topographic map T-3973 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 7½ minute quadrangle. The registered copies under T-3973 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-8973
35-30/476 - 07.5/07.5
Project Ph-20 (47)
E. R. McCarthy, Chief of Party

The field work for this quadrangle was done in accordance
with the Director's Instructions, Project Ph-20 (47), Field, dated

This report was written in accordance with Paragraph 724;

2. AREAL FIELD INSPECTION

A part of the northern portion of Mattamuskeet Lake covers
almost half of the quadrangle. The northern portion of the quadrangle
is bisected by the Intracoastal Waterway. Approximately twenty-five
percent of the area is under cultivation. The remainder is either
swampland and seasonally inundated.

Fairfield, an unincorporated town of approximately 300 population,
is the only settlement within the quadrangle.

The area is served by N. C. State Highway No. 94 and a few
secondary roads in the vicinity of Fairfield. About fifty percent is
accessible only by canals and the Intracoastal Waterway.

Alligator River is navigable for large boats from N. C. State
Highway No. 94 down stream. Fairfield and Carter Canals are navigable
for large craft to the first bridges. Small skiffs can navigate to the
end of these canals.

The land area throughout the quadrangle is very low and flat.
It is dissected by many canals and ditches. The highest elevations is
seven feet.

The elevation of Lake Mattamuskeet depends entirely upon wind
and rainfall. The average height above sea level is 0.9 foot. (See
Field Inspection Report for Quadrangle T-8975 and T-8976).

Farming, lumbering, and guiding hunting parties are the principal
occupations.

N. C. Highway No.94 is under construction between the village of
Fairfield and a point 0.5 mile north of the Intracoastal Waterway. The
road between these points is being relocated and should be checked during
field edit. Checked by Field editor - item 57.

Sufficient classifications have been made for the vegetation
within the quadrangle so that it is believed that the compiler will
encounter no difficulty in the interpretation of the photographs.

The Photographs were satisfactory.
3. HORIZONTAL CONTROL

All known horizontal control stations within the quadrangle were searched for. All recovered stations were identified for control of the radial plot. Two stations north of the quadrangle were also identified.

(c) Station not established by the Coast and Geodetic Survey is:

<table>
<thead>
<tr>
<th>Station</th>
<th>Agency</th>
<th>Order</th>
<th>Datum</th>
</tr>
</thead>
<tbody>
<tr>
<td>AZ MK 267</td>
<td>North Carolina</td>
<td>Third</td>
<td>N.A. 1927</td>
</tr>
<tr>
<td></td>
<td>Geodetic Survey</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(f) Station reported lost on Form 526 are: 267 (NCGS), 1934.

4. VERTICAL CONTROL

(a) A third order level line was run along Route 94 by this party in 1948. During the process of leveling, the elevations of all previously established bench marks were redetermined.

\[
\begin{align*}
\checkmark \text{B.M. No.} & \text{5 (USDA)} \\
\checkmark \text{B.M. No.} & \text{3 (USAE) } \\
\checkmark \text{B.M. No.} & \text{4 (USAE) } \\
\checkmark \text{B.M. No.} & \text{5 (USAE) } \\
\checkmark \text{B.M. No.} & \text{3, Fairfield, 1935} \\
\checkmark \text{B.M. No.} & \text{2, Fairfield, 1935} \\
\checkmark S-244 & \\
\checkmark \text{B.M. No.} & \text{1, Junction, 1935} \\
\checkmark \text{Junction, 1935} & \\
\checkmark S-244 & \\
\end{align*}
\]

(b) Seventeen and four tenths miles of fly level were run to establish supplemental control for contouring. The largest closure was 0.44 feet, which was adjusted.

(c) First and last designated level point for Map: 73-1 to 73-35.

(d) Third order bench mark B-244 has been destroyed since 1948.

5. CONTOURS AND DRAINAGE

Contouring was done by planable methods directly on nine line photographs. The contour interval is five feet.
All drainage is artificial as this land is too low to be farmed under natural conditions. Most of the land is less than three feet above sea level.

Most of the ditches and canals drain into Mattamuskeet Lake.

6. WOODLAND COVER

The woodland cover was classified in accordance with the Preliminary Edition of the Topographic Manual, Part II, dated June 1949; paragraph 5433. In accordance with published edition.

7. SHORELINE AND ALONGSHORE FEATURES

(a) The Intracoastal Waterway has no periodic tide. The water level varies as much as a foot under varying conditions of wind and rain. The banks of the Intracoastal Waterway have been classified as apparent shoreline except for a small area near the Fairfield Swing Bridge which area has been noted on the photograph.

(b) The mean low water line and the mean high water line are synonymous for reasons under (a)

(c) There is no foreshore.

(d) Spoil banks exist along Intracoastal Waterway, where over five feet in elevation, have been depicted by contours.

(e) There are no piers or docks within the quadrangle.

(f) The shore ends of a submarine cable at Fairfield Swing Bridge have been located and labeled on the photograph.

(g) Inapplicable.

8. OFFSHORE FEATURES

Inapplicable.

9. LANDMARKS AND AIDS

There are neither landmarks nor aids within this quadrangle.

10. BOUNDARY MONUMENTS AND LINES

This is covered in a "Special Boundary Report" which was submitted by Wilbur A. Nelson on 14 February, 1949 and a Supplemental report submitted 8 November, 1949 by A. J. Wright. Filed in Div. Photogr. general files.

One boundary point of the Mattamuskeet Refuge was located. It is not recoverable. Form M-222b-12 is submitted.

Not clear. Field notes and sketch on M-222L-12 indicate a recoverable monument object of some kind is extant. Field editor did not furnish additional information. It is shown by the monument symbol "□."
11. OTHER CONTROL

One topographic station was established along the Intracoastal Waterway; namely TOMB, 1949.

12. OTHER INTERIOR FEATURES

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

There is one highway bridge across the Intracoastal Waterway. Pertinent data concerning this bridge has been shown on photograph 22157. All bridge information for the area covered by this report as listed in the "U.S. Engineers List of Bridges over Navigable Waters in the U.S." dated July 1, 1941, was verified in the field. All clearances were carefully measured with a steel tape and the published descriptions and clearances were found to be correct.

One submarine cable was located at Fairfield Swing Bridge and has been noted on the photograph numbered 22157. Form M-2225-12 is submitted.

The fixed wooden bridge over Alligator River will be relocated because of the highway change. This item should be checked during field edit. Done. See item 59.

13. GEOGRAPHIC NAMES

This will be the subject of a Special Report to be submitted by A. J. Wraght at a later date. Filed in Geographic Names Section, Div. of Charts.

14. SPECIAL REPORTS AND SUPPLEMENTAL DATA

Except as noted above in items 10 and 13, there are no special data for this sheet.

15. SWAMP

The wooded areas in the quadrangle have been classified as

Intermittent swamp.

Reeds, photographed white. Areas with a smooth grey texture usually proved to be low briars mixed with stunted pines.

15 November 1949
Submitted by:

[Signature]

Cartographic Survey Aid

Approved:
21 December 1949

[Signature]

E. R. McCarthy
Chief of Party
Photogrammetric Plot Report

This report covers the plot for maps T-8973 to T-8976 inclusive, T-8984 to T-8986 inclusive, T-8993 and T-8994, and is filed as part of the descriptive report for T-8974.
<table>
<thead>
<tr>
<th>STATION</th>
<th>SOURCE OF INFORMATION (INDEX)</th>
<th>LATITUDE OR $\nu$-COORDINATE</th>
<th>LONGITUDE OR $\lambda$-COORDINATE</th>
<th>DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD (BACK)</th>
<th>DATUM CORRECTION</th>
<th>N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE FORWARD (BACK)</th>
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<tbody>
<tr>
<td>CARTER, 1935</td>
<td>G.P.s</td>
<td>35 37 05.142</td>
<td></td>
<td></td>
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<td>158.5(1690.7)</td>
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<td>JUNCTION, 1935</td>
<td>G.P.s</td>
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<tr>
<td>266 (N.C.G.S.),</td>
<td>ALLIGATOR</td>
<td>35 34 13.621</td>
<td>Falls on T-8972.</td>
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<td></td>
<td>1,117.4(731.7)</td>
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<tr>
<td>1935</td>
<td>LAKE A18</td>
<td>76 15 04.074</td>
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<td></td>
<td></td>
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<tr>
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<td>35 33 06.390</td>
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<td></td>
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<td>196.9(1652.2)</td>
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<td>JONES, 1933</td>
<td>S.P.218</td>
<td>35 32 25.662</td>
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<td></td>
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<td>14</td>
<td>76 10 04.890</td>
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<td>FAIRFIELD</td>
<td>35 31 48.535</td>
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<td>1934</td>
<td>A2</td>
<td>76 13 15.483</td>
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<td>266, AZ. MK.</td>
<td>N.C.G.S.</td>
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<td>2,153.66(7,846.36)</td>
<td>Falls on T-8972.</td>
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<td>2,087,220.03(2,779.97)</td>
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<td>(N.C.G.S.), 1935</td>
<td>Pge 2</td>
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<td>8,005.14(1,994.86)</td>
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<td>35 37 07.474</td>
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<tr>
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<td>76 12 24.808</td>
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</tr>
</tbody>
</table>
COMPILATION REPORT T-8973

PHOTOGRAFMIC PLOT REPORT

Submitted with T-8974.

31. DELINEATION.
    Graphic methods were used. The field inspection was adequate.

32. CONTROL.
    Identification, placement and density were satisfactory.

33. SUPPLEMENTAL DATA.
    None used.

34. CONTOURS AND DRAINAGE.
    No difficulty was experienced in the delineation of contours.
    Drainage was readily interpreted from the photographs.

35. SHORELINE AND ALONGSHORE DETAILS.
    Shoreline was readily interpreted from the field photographs.
    No low-water or shoal lines are shown.

36. OFFSHORE DETAILS.
    None.

37. LANDMARKS AND AIDS.
    None.
38. **CONTROL FOR FUTURE SURVEYS.**

One Form 524 has been submitted for a recoverable topographic station. It has been listed and included under Item No. 49. [File in Div. Photogrammetry general files.]

39. **JUNCTIONS.**

Survey T-9279 on the north - Project Ph-45(49). (not yet compiled).
Survey T-8974 on the east - Junction is good.
Survey T-8984 on the south - Junction is good.
Survey T-8972 on the west - Junction is good.

40. **HORIZONTAL AND VERTICAL ACCURACY.**

No statement.

46. **COMPARISON WITH EXISTING MAPS.**

Comparison was made with U. S. G. & G. S. Planimetric Map, T-5568, at a scale of 1:20,000, dated 1934. Agreement was good.

47. **COMPARISON WITH NAUTICAL CHARTS.**

Comparison was made with Nautical Chart No. 1231 at a scale of 1:90,000, edition dated November 1938, corrected to 1 August 1947.

The map listed under Item 46 appears to be the source of the Chart's planimetry; any differences are too minor for discussion.

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

None.

**ITEMS TO BE CARRIED FORWARD.**

None.

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Approved and Forwarded:

[Signature]

Charles J. Downing
Cartographic Aid (Photo)

[Signature]

Arthur L. Wardwell, Chief of Party
48. GEOGRAPHIC NAME LIST.

ALLIGATOR RIVER
ALLIGATOR RIVER - FUNGO RIVER CANAL
ALL SAINTS CHURCH

BETHLEHEM CHURCH
BOUNDARY CANAL
BURRUS CANAL

CARMUR
CARTERS CANAL

FAIRFIELD
FAIRFIELD BRIDGE
FAIRFIELD CANAL
FAIRFIELD TOWNSHIP
FLORIDA CANAL

GUM NECK TOWNSHIP

HYDE COUNTY

INTRACOASTAL WATERWAY

LAKE MATTAMUSKEET

MATTAMUSKEET NATIONAL WILDLIFE REFUGE

NEW LAKE FORK
NORTH CAROLINA
NORTH LAKE CHURCH
NO. 1 EAST CANAL

SNOW HILL CHURCH
STAR ZION CHURCH
STATE 94

TYRRELL COUNTY

*Name shown on Map Manuscript in pencil - to be investigated by the field editor.

Names underlined in red are approved subject to Field Edt. 2-7-51.
L. Heck.
PHOTOGRAFMETRIC OFFICE REVIEW
T- 8973


CONTROL STATIONS


ALONGSHORE AREAS
(Nautical Chart Data)

18. Other alongshore physical features J.G.

PHYSICAL FEATURES


CULTURAL FEATURES


BOUNDARIES

31. Boundary lines J.G.

MISCELLANEOUS

40. Jesse A. Giles William A. Rasure

Reviewer Supervisor, Review Section or Unit

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 ____________________________

M-2623-12
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. A general check on the adequacy of the map compilation was made.

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

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

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

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

The 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. See 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 (See Field Edit Report, T-8972.)

56. HORIZONTAL CONTROL

Ref. to item 3 - Field Inspection Report.

A thorough search was made for 267, 1934 (NCGS), but it was not recovered. It is believed that it was destroyed through road construction. The azimuth mark was found and was accurately pricked on the field edit sheet. Form W-2226-12, submitted along with the original field data, has been corrected.

The azimuth mark is 1343 feet east of 2 of N.C. 94 and 26 feet north of 2 of black-top road leading east.

57. BOUNDARY MONUMENTS AND LINES

Ref. to item 10 - Field Inspection Report.

One additional point on boundary of the Mattamuskeet National Wildlife Refuge has been shown on the field edit sheet. This point is not monumented, but, according to Mr. William Grey Cahoon, Refuge Manager, New Holland, N.C., it is within one foot of the true boundary.

The point is a large U.S. Department of Interior, Fish and Wildlife Service sign, suspended on a wooden frame. It is 1323 feet north of 2 of concrete culvert on N.C. 94, and 32 feet west of 2 of N.C. 94.

According to Mr. Melvin M. Swindell, Clerk of Superior Court of Hyde County, Swan Quarter, N.C., there are five townships in the county, i.e. Currituck, Fairfield, Swan Quarter, Lake Landing, and Ocracoke. There was a Mattamuskeet Township until the U.S. Government acquired title to Mattamuskeet Lake. Since that time, the township has been inoperative and all the area, not covered by government title, has been placed in one or more of the existing townships.

58. WOODLAND COVER

Ref. to item 6 - Field Inspection Report.

Reclassification of vegetation has been shown on the field edit sheet.
59. OTHER INTERIOR FEATURES

Ref. to item 12 - Field Inspection Report.

Reclassification of roads and buildings has been shown on the field edit sheet.

All new construction of roads, N. C. 94, has been shown on the field edit sheet.

The bridge and cable data for the sub-cable and swing bridge spanning the Intracoastal Waterway was verified.

The fixed wooden bridge over Alligator River has been removed and the road abandoned.

60. JUNCTIONS

Satisfactory junctions have been made with T-8974 on the east, T-8974 on the south, T-8972 on the west. Junction on the north with T-9279 (Ph-45(49) will be made at a later date.

18 July 1951
Submitted by:

James E. Huntley
Cartographer

26 July 1951
Approved by:

Harry F. Garber
Commander, USCG&GS
Chief of Party
REVIEW REPORT T-8973
Topographic Map
6 May 1952

62. Comparison with Registered Topographic Surveys:
   T-5569  1:20,000  1934
   This map, T-8973, supersedes T-5569 for nautical chart purposes.

63. Comparison with Maps of Other Agencies:
   Columbia, N. C., U.S.E. quadrangle, 1:125,000, 1942

64. Comparison with Contemporary Hydrographic Surveys:
   None

65. Comparison with Nautical Charts:
   831 (Intracoastal Waterway) 1:40,000, 1st ed 1952
   1231, 1:30,000, ed 1938, corr. 11/12/51
   There are no significant differences between T-8973 and the charts.

66. 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. E. Maki

Approved:

S. Sergeant
Chief, Review Section Branch
Division of Photogrammetry

H. L. Hamilton
Chief, Nautical Chart Branch
Division of Charts

D. W. Reading
Chief, Div. of Photogrammetry

C. O. Hendrix
Chief, Div. of Coastal Surveys