**Form 804**
U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

**DESCRIPTIVE REPORT**

<table>
<thead>
<tr>
<th>Type of Survey</th>
<th>Planimetric</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field No.</td>
<td>Office No. T-11216</td>
</tr>
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</table>

**LOCALITY**

<table>
<thead>
<tr>
<th>State</th>
<th>Massachusetts</th>
</tr>
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<tbody>
<tr>
<td>General locality</td>
<td>Nantucket Island</td>
</tr>
<tr>
<td>Locality</td>
<td>Muskeget Island</td>
</tr>
</tbody>
</table>

**1945, 1961**

**CHIEF OF PARTY**

L. H. Kirsch, Chief of Party
Photogrammetry Division, Wash., D. C.

**LIBRARY & ARCHIVES**

**DATE**
**DESCRIPTIVE REPORT - DATA RECORD**

**PROJECT NO. (III):**

PH-116

**FIELD OFFICE (III):**

Baltimore, Md.

**CHIEF OF PARTY**

E. H. Kirsch

**PHOTOGRAMMETRIC OFFICE (III):**

Washington, D. C.  
Baltimore, Md.

**OFFICER-IN-CHARGE**

L. W. Swanson  
W. E. Randall

**INSTRUCTIONS DATED (III) (III):**

30 April 1953  
9 July 1953 (Supp. II)  
15 Dec. 1955 (Supp.)  
20 Jan. 1956  
Supplemental instructions (Office) PH-116 8 May 1961  
PH-6102 Instructions 10 May 1961

**METHOD OF COMPILATION (III):**

Stereoplanigraph

**MANUSCRIPT SCALE (III):**

1:10,000

**STEREOSCOPIC PLOTTING INSTRUMENT SCALE (III):**

1:10,000

**DATE RECEIVED IN WASHINGTON OFFICE (IV):**

June 1960

**DATE REPORTED TO NAUTICAL CHART BRANCH (IV):**

**APPLIED TO CHART NO.**

**DATE REGISTERED (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 (2) refer to sounding datum
i.e., mean low water or mean lower low water

**REFERENCE STATION (III):**

Peak 1955

**LAT.:**

**LONG.:**

☐ ADJUSTED  
☐ UNADJUSTED

**PLANE COORDINATES (IV):**

\[ y = 122,944.7 \quad x = 255,477.6 \]

**STATE**

Mass.

**ZONE**

Island

ROMAN NUMERALS INDICATE WHETHER THE ITEM IS TO BE ENTERED BY (III) 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.
# Descriptive Report - Data Record

**Field Inspection by (III):**

**R. L. McGlinchey**

**Mean High Water Location (III) (State Date and Method of Location):**

*Field Inspection - July 1955*

*Revised in 1961 using 1961 "Tide Controlled" Photography (infra-red)*

**Projection and Grids Ruled by (IV):**

**A. Riley**

**Projection and Grids Checked by (IV):**

**A. Riley**

**Control Plotted by (III):**

**R. Fuechesel**

**Control Checked by (III):**

**J. Perrow**

**Radial Plot or Stereoscopic Control Extension by (III):**

*None*

**Stereoscopic Instrument Compilation (III):**

**Planimetry**

**R. Fuechesel**

**June 1960**

**Contours**

**R. Fuechesel**

**June 1960**

**Manuscript Delineated by (III):**

**K. N. Maki**

**Scribing by (III):**

**K. N. Maki**

**Revision Review - R. Glaser**

**Photogrammetric Office Review by (III):**

**K. N. Maki**

**June 1960**

**June 1961**

**Remarks:**

*Shoreline Revision - L. Senasack - 1961*
**Descripive Report - Data Record**

**Source (Kind or Source)**: Wild Avigon

### 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>55 W 5065</td>
<td>15 Mar. 1955</td>
<td>10:15</td>
<td>1:25,000</td>
<td>+ 0.6</td>
</tr>
<tr>
<td>5066</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>615 6610, 6611, 6613</td>
<td>4-12-61</td>
<td>3:25</td>
<td>1:20,000</td>
<td>- 0.1 (Low water)</td>
</tr>
<tr>
<td>61L 1557 thru 1559</td>
<td>4-12-61</td>
<td>7:43</td>
<td>1:10,000</td>
<td>- 0.1 (High water)</td>
</tr>
</tbody>
</table>

### Tide (III)

<table>
<thead>
<tr>
<th>Reference Station: Boston</th>
<th>Ratio of Ranges</th>
<th>Mean Range</th>
<th>Spring Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Muskeget Island, W. Side</td>
<td>0.17</td>
<td>1.6</td>
<td>1.9</td>
</tr>
<tr>
<td></td>
<td>9.5</td>
<td>11.0</td>
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</tr>
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</table>

**Washington Office Review by (IV):**

S. G. Blankenbaker

**Date:** July 1964

**Remarks:**

* Tide controlled photography
Summary to Accompany Descriptive Reports

T-11216 and T-11222

The subject maps are two of 40 similar maps comprised project Project PH-116. Project coverage includes (1) Cape Cod shoreline, (2) the entire east shore of Cape Cod, and (3) the islands of Martha's Vineyard and Nantucket. T-11216 and T-11222 cover parts of Nantucket Island.

T-11216 was first compiled in 1956. This compilation was incorrectly oriented. An entirely new map was compiled in 1960. This map and T-11222 (1956) were revised in 1961 from "tide controlled" infrared and color photographs taken in 1961. Neither the 1960 compilation of T-11216, nor the 1956 compilation of T-11220 will be registered (refer to item 61 of the final review report). No records of the 1956 compilation of T-11216 are included.

The revised copies of the two maps were applied to a chart drawing base (T-12500). Refer to the Descriptive Report for T-12500 (PH-6102) concerning the additional work.
FIELD REPORT -

See Descriptive Report T-11221
<table>
<thead>
<tr>
<th>STATION</th>
<th>SOURCE OF INFORMATION (INDEX)</th>
<th>DATUM</th>
<th>LATITUDE OR Y-COORDINATE</th>
<th>DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS</th>
<th>DATUM CORRECTION</th>
<th>N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS</th>
<th>FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS</th>
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</thead>
<tbody>
<tr>
<td>PEAK, 1955</td>
<td>Field Comp. 1927</td>
<td>N.A.</td>
<td>122,939.88</td>
<td>255,471.74</td>
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<tr>
<td>S.S. PEAK, 1955</td>
<td>Office Comp.</td>
<td></td>
<td>123,226.78</td>
<td>255,139.07</td>
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<tr>
<td>CONTROL PT. &quot;A&quot; 1955 (Temp.Sta.)</td>
<td>Field Comp.</td>
<td></td>
<td>120,902.63</td>
<td>254,871.19</td>
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<tr>
<td>SS CONTROL PT. &quot;A&quot; 1955</td>
<td>Office Comp.</td>
<td></td>
<td>121,333.21</td>
<td>254,919.62</td>
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<tr>
<td>EAST CHIMNEY</td>
<td>Field Comp.</td>
<td></td>
<td>121,376.12</td>
<td>256,134.80</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>WEST CHIMNEY</td>
<td></td>
<td></td>
<td>122,789.14</td>
<td>251,961.16</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
31. Delineation

The Stereoplanigraph was used for detailing. Since the land area covered only a small portion of the model, special methods were used to set the model in the instrument. Two areas of shifting sand were indicated on the field photographs as former water areas. These areas were delineated on the instrument and checked with a projector.

32. Control

The four horizontal control stations recovered on this island afford adequate control. All stations were held within .2 mm.

33. Supplemental Data - Not applicable
34. Contours and Drainage - Not applicable.
35. Shoreline and Alongshore Details - Not applicable.
36. Offshore Details - Not applicable.
37. Landmarks and Aids - Not applicable.
38. Control for Future Surveys - Not applicable.
39. Junctions

Junctions were made with T-11219 to the south.

40. Horizontal and Vertical Accuracy

The horizontal datum and azimuth of Muskeget Island are based on four horizontal stations of less than 3rd-order accuracy.

46. Comparison with Existing Maps

USGS Nantucket County, Massachusetts
Tuckernuck Island Quadrangle
1:31680 1951
47. Comparison with Nautical Charts

Nautical Chart No. 1209
Nantucket Sound and Approach
1:80,000 1943, Corr. to 8/30/54

(b) "Items to be applied to Nautical Charts Immediately" - None

(c) "Items to be Carried Forward" - None

Submitted by
J. D. Ferrow, Jr.

Approved
K. N. Maki
Super. Photogrammetric Engineer

E. H. Ramey
Super. Cartographer
SUPPLEMENTAL COMPILATION REPORT
T-11216

The approximate low-water line, breaker, areas and the apparent edge of shallow areas were delineated by office interpretation on overlays from the 1:20,000 scale color photographs. These details were then transferred to the manuscript by use of the vertical projector.

Ratio prints of the infrared photography were used to revise the high-water line.

Respectfully submitted
22 June 1961
R. Glaser
Carto. (Photo.)

Approved and forwarded

William E. Randel
CDR, C&GS
Baltimore District Officer

Addendum:
Only those interior details needed for the compilation of Chart 265 have been added or revised from 1961 photography.
61. **General**

   T-11216 and T-11222 are two of seven planimetric surveys covering Nantucket Island. Two maps each are registered for the other five surveys (refer to the Descriptive Reports for these maps). T-11216 and T-11222 have not been used for shoreline for hydrography; only the revised (1961) final maps for T-11216 and T-11222 will be registered.

   Control for T-11216 consists of stations of less than 3rd order accuracy - refer to side heading 40. of the Compilation Report.

62. **Comparison with Registered Topographic Surveys**

   Prior to the subject surveys, the most recent maps covering the area were compiled in 1887. T-11216 and T-11222 were not compared with these surveys.

63. **Comparison with Maps of Other Agencies**

   Quadrangle Tuckernuck Island, scale 1:24,000, date 1951
   Quadrangle Nantucket, scale 1:24,000, date 1951.

   No significant differences were noted.

64. **Comparison with Contemporary Hydrographic Surveys**

   Inapplicable

65. **Comparison with Nautical Charts**

   265 scale 1:40,000 date 1963

   Topography for this chart was provided through T-11216, T-11222 and other PH-116 maps. These maps were reduced and then applied to the nautical chart base or drawing.
66. Adequacy of Results and Future Surveys

Refer to side heading 61 of this report concerning horizontal control for T-11216. Horizontal accuracy of this map is dependent upon control of less than 3rd order accuracy. T-11222 meets the National Standards of Map Accuracy and Bureau Requirements.

Reviewed by:

S. G. Blankenbaker

Approved by:

Chief, Photogrammetric Branch

Chief, Nautical Chart Division

Chief, Photogrammetry Division
<table>
<thead>
<tr>
<th>Name on Survey</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
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<tbody>
<tr>
<td>Atlantic Ocean</td>
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<td></td>
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<tr>
<td>Muskeget Island</td>
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<td>3</td>
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<td>Nantucket Sound</td>
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<tr>
<td>Tuckernuck Bank</td>
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<td>5</td>
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Names approved

5-65

A. F. Wright