**T-12983**

**NGAA FORM 76-35**

**U.S. DEPARTMENT OF COMMERCE**  
**NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION**  
**NATIONAL OCEAN SURVEY**

**DESCRIPTIVE REPORT**

*Type of Survey*: Shoreline (Photogrammetric)  
*Job No.*: PH-6601  
*Map No.*: T-12983

**LOCALITY**

*State*: Massachusetts  
*General Locality*: Boston to Plum Island  
*Locality*: Marblehead Neck

---

1965 TO 1968

**Alfred C. Holmes, Director, AMC**

**REGISTRY IN ARCHIVES**

*DATE*
**OBJECT NO. (III):**

Job Ph-6601

**FIELD OFFICE (III):**

None

**CHIEF OF PARTY**

**PHOTOGRAMMETRIC OFFICE (III):**

Atlantic Marine Center, Norfolk, VA

**OFFICER-IN-CHARGE**

Alfred C. Holmes, Director, AMC

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

Field - Aug. 4, 1965
Field - Aug. 19, 1965 Provisional Instructions, Aerial Photography
Office - Oct. 8, 1965 Instructions Aerotriangulation
Office - Jan. 27, 1966
Office - Feb. 2, 1966 Instructions Aerotriangulation
Office - Apr. 28, 1966
Field - May 20, 1966 Supplement I
Office - July 11, 1966 Supplement II

**METHOD OF COMPIlATION (III):**

Wild B-8 and Graphic

**MANUSCRIPT SCALE (III):**

1:10,000

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

1:15,000 Pantographed to 1:10,000

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

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

Sept. 1975

**APPLIED TO CHART NO.**

**DATE:**

**DATE REGISTERED (IV):**

NA 1927

**REFERENCE STATION (III):**

Great Pig Rock (USE), 1940

**LAT.:** 42°27'595" (1376.0m)

**LONG.:** 70°51'09.925" (226.8m)

**STATE:** Massachusetts

**ZONE:** Mainland

**PLANE COORDINATES (IV):**

y = 533,556.10 Ft.

x = 774,652.71 Ft.
**DESCRIPTIVE REPORT - DATA RECORD**

**T-12983**

**FIELD INSPECTION BY (III):**
None

**MEAN HIGH WATER LOCATION (III) (STATE DATE AND METHOD OF LOCATION):**

Air Photo Compilation
Date of Photography: August 24, 1965

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<td>5/27/66</td>
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<td>R. Glaser</td>
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<td>9/21/66</td>
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<td>C. Blood</td>
<td>9/21/66</td>
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<th>RADIAL PLOT OR STEEROSCOPIC CONTROL EXTENSION BY (III):</th>
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<td>H.P. Eichert</td>
<td>11/1/66</td>
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<th>PLANIMETRY</th>
<th>CONTOURS</th>
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<td>L. Neterer *(NA)</td>
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<th>MANUSCRIPT DELINEATED BY (III):</th>
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<td>R. White *</td>
<td>10/1/67</td>
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<th>PHOTOGRAMMETRIC OFFICE REVIEW BY (III):</th>
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<td>A.L. Shands</td>
<td></td>
</tr>
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**REMARKS:**

"All detail north of Lat. 42° 28' 30" was traced from reductions of manuscripts T-12976 and T-12977."
### DESCRIPTIVE REPORT - DATA RECORD

**T-12983**

**CAME RA (KIND OR SOURCE) (II):**

Wild RC-8 "S"

**PHOTOGRAPHS (III):**

<table>
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<th>NUMBER</th>
<th>DATE</th>
<th>TIME</th>
<th>SCALE</th>
<th>STAGE OF TIDE</th>
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</thead>
<tbody>
<tr>
<td>65 8(e) 7240,7241</td>
<td>Aug. 31, 65</td>
<td>07:44</td>
<td>1:30,000</td>
<td>0.3 ft. below MLW*</td>
</tr>
<tr>
<td>65 8 6938R,6939R</td>
<td>Aug. 24, 65</td>
<td>08:50</td>
<td>1:30,000</td>
<td>8.7 ft. above MLW*</td>
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**TIDE (III):**

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<tr>
<th>REFERENCE STATION:</th>
<th>Boston</th>
<th>RATIO OF RANGES</th>
<th>MEAN RANGE</th>
<th>SPRING RANGE</th>
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<tr>
<td>SUBORDINATE STATION:</td>
<td>Marblehead</td>
<td>9.5</td>
<td>11.0</td>
<td></td>
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**WASHINGTON OFFICE REVIEW BY (IV):** Bernard Kurs, AMC

**DATE:** December, 1973

**NUMBER OF TRIANGULATION STATIONS SEARCHED FOR (II):** 6

<table>
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<th>NUMBER OF BM(S) SEARCHED FOR (II):</th>
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<th>IDENTIFIED:</th>
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**NUMBER OF RECOVERABLE PHOTO STATIONS ESTABLISHED (III):** 0

**NUMBER OF TEMPORARY PHOTO HYDRO STATIONS ESTABLISHED (III):** 0

**REMARKS:**

*The stage of tide at the time of photography was determined by readings on a staff at Ten Pound Island. See Instructions, Office dated April 28, 1966.*
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<tr>
<th>Compilation Record</th>
<th>Completion Date</th>
<th>Remarks</th>
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<tr>
<td>Alongshore area for hydro</td>
<td>March, 1968</td>
<td>Superseded</td>
</tr>
<tr>
<td>Field Edit applied from reductions of T-12976 and T-12977</td>
<td>Nov., 1969</td>
<td>Superseded</td>
</tr>
<tr>
<td>Final Review</td>
<td>Dec., 1973</td>
<td></td>
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</table>
JOB PH-6601
BOSTON TO PLUM ISLAND
SHORELINE MAPPING AT 1:5,000 & 1:10,000 SCALE
CHART 613-SC
CHART TOPOGRAPHY AT 1:400,000 SCALE
SUMMARY TO ACCOMPANY

DESCRIPTIVE REPORTS PH-6601

This shoreline manuscript is one of thirty-one maps that make up this project. The primary purpose of the project is to provide contemporary shoreline for nautical chart construction. Maps were also used to provide photogrammetric hydro support data for the hydrographic surveys to be conducted in the same area.

The only field work prior to compilation was recovery and identification of horizontal control required for aerotriangulation.

Field edit was accomplished by a photogrammetric field party during the years 1967, 1968, 1969 and 1970. The field edit was adequate.

Cronaflex positives and ozalids of the manuscripts were furnished for the use of the field editor and the preparation of the hydrographers boat sheets. Accompanying these were specially prepared ratio photographs to aid in the location of hydrographic signals.

Final review was accomplished at the Atlantic Marine Center from September, 1973 to April, 1974.

A cronaflex positive and negative of each reviewed manuscript are being forwarded for record and registry.
FIELD INSPECTION REPORT

T-12983

Project PH-6601

There was no field inspection prior to compilation.
PHOTOGRAMMETRIC PLOT REPORT
Job PH-6601
Boston to Plum Island, Massachusetts

November 1, 1966

21. Area Covered

This report covers aerotriangulation for 1:5,000 and 1:10,000 scale surveys in an area north of Boston, Massachusetts. The 1:5,000 scale surveys are T-12968 thru T-12977; the 1:10,000 scale surveys are T-12959 thru T-12967 and T-12978 thru T-12985.

22. Method

Four strips were bridged by the analytic method. Strip 1 was at a scale of 1:30,000 using infrared photography; Strips 2 and 3 at a scale of 1:30,000 using color film; and Strip 4 using color film at a scale of 1:15,000.

The 1:30,000 scale bridges were to be used for the 1:10,000 scale compilation. The four-model 1:15,000 scale bridge was necessary to complete coverage on surveys T-12972 and T-12978.

Common points between the 1:30,000 and 1:15,000 scale photography were selected. Plane coordinate positions from our bridges were determined so that 1:15,000 scale models could be controlled to compile the 1:5,000 scale surveys. Plane coordinates are on the Massachusetts State Grid (Mainland). The attached aerotriangulation sketch shows location of strips bridged. Closures to control have been tabulated.

23. Adequacy of Control

Field identified control was supplemented by office identified horizontal control points and was adequate.

24. Supplemental Data

Vertical control points needed the control for strip adjustments were taken from USGS quads.

25. Photography

The color photography was excellent. The infrared photography, which is not particularly suited for bridging, was adequate.

Respectfully submitted,

Henry P. Eichert
AEROTRIANGULATION SKETCH
BOSTON TO PLUM ISLAND
PH-6601
May, 1966

Δ control used in adjustment
Δ control used as check
STRIP #1

1. MEAD 2 (MGS), 1934
   target (+0.1, +0.1)
   sub. pt. (-0.9, +1.7)

2. CHAOTE, 1849
   target (-0.4, -0.2)

3. PLUM ISLAND COAST GUARD CUPOLA, 1943
   target (+0.5, +0.3)
   sub. pt. (-2.8, +4.5)

4. OLD TOWN, 1850
   target (-0.2, -0.2)
   RM #1 (-0.2, +0.3)

STRIP #2

5. STONEHAVEN (ROCKPORT TOWN (MGS)), 1937
   target (+1.2, -2.6)
   sub. pt. A (-0.7, -1.6)
   sub. pt. B (+1.3, -3.0)

- 1. MEAD 2 (MGS), 1934
   target (0.0, +3.3)
   sub. pt. (+0.7, +3.6)
7. Manchester Church, Dark Spire, 1848
   Target (-6.0, +0.8)
   Sub. Pt. A (-7.1, +3.1)

   Office identified (+4.8, +1.9)

9. Fort Pickering Lighthouse, 1877
   Office identified (+6.0, +1.0)

14. High Rock 2 (MGS)
    Sub. Pt. A (+3.2, -4.4)
    Sub. Pt. B (+2.0, -2.8)

15. High Rock 3, 1743
    Office identified (+1.8, -3.7)

17. Revere Catholic Church Tower, 1934
    Office identified (-1.0, -4.0)

19. Booth (MGS), 1934
    Sub. Pt. A (+3.4, -1.4)

    Office identified (-1.5, +2.2)

20. Medford Radio Station, WEEI-FM Tower, 1953
    Office identified (+2.1, -1.0)

21. Medford TV Station, WNAC Tower, 1953
    Office identified (+5.3, -1.0)
22. Medford. Radio Station. WEEI. NE Tower. 1955
   Office identified (1+4, +3.0)

23. Medford. Radio Station. WEEI. SW Tower. 1955
   Office identified (1+7, +3.1)

24. Strip #3

25. Boston. State House. 1934
   Office identified (2+6, +5.5)

   Office identified (1+3, +4.7)

   Office identified (1+2, +0.1)

   Office identified (1+6, +5.5)

   Office identified (1+7, -2.0)

17. Revere. Catholic Church Tower. 1934
   Office identified (-4.0, -5.0)

18. Revere. Beach Stack. 1919
   Office identified (-4.1, -2.2)

14. High Rock. #2
   Sub unforetable (2.9, +3.3)

   Office identified (3+6, +6.4)
13. Swampscott. High School, Finial, 1749
   Office identified (x0.7, z3.4)

12. Swampscott. Larger Standpipe, 1934
   Office identified (x0.7, z1.8)

11. Marblehead, Abbott Tower, 1719
   Office identified (x0.6, z4.4)

10. Marblehead. Lighthouse, 1914
   Office identified (x2.0, z5.1)

  Manchester Church. Park Spire, 1878
   Target (x-3.5, z-5.8)
   Sub. pt. A (x-4.1, z-5.3)

 1. Mead. Z (M65), 1934
   Target (x3.8, z0.7)
   Sub. pt. (x6.2, z1.2)

 5. Stonehaven (Rockport Town. M65), 1939
   Target (x-2.1, z0.3)
   Sub. pt. A (x-1.3, z1.6)
   Sub. pt. B (x-2.0, z1.2)

 6. Straitsmouth Lighthouse, 1902
   Office identified (x-3.1, z-5.2)
STRIPE # 4

24. DANVERS, COOKE & COOKE CO. CHIMNEY, 1819
   HPAUSE STA (-0.18 +0.79)
   SS "A" (-0.01 -0.01)
   SS "B" (-1.83 +1.74)

30. BEVERLY, UNITED SHOE MFG. CO. STK, 1931

31. BEVERLY, Odd Fellows, Cupola, 1930
   (-1.29 +1.65)

32. BEVERLY, St. Mary's Church Spire, 1930
   (-1.32 -1.09)

33. BEVERLY, 1st Baptist Church, 1911
   (+1.35 +1.10)

TIE POINTS

12601 (-3.28 -6.78)
12602 (-3.79 -3.20)
13601 (-2.36 -3.41)
14601 (-3.15 -1.53)
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<tr>
<th>STATION</th>
<th>SOURCE OF INFORMATION (INDEX)</th>
<th>DATUM</th>
<th>LATITUDE OR Y COORDINATE</th>
<th>LONGITUDE OR X COORDINATE</th>
<th>DISTANCE FROM GRID OR PROJECTION LINE IN METERS (1 ft = 0.3048006 meters)</th>
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<tbody>
<tr>
<td>ROARING BULL LEDGE BEACON 1916</td>
<td>Vol. I Pg. 285</td>
<td>NA 1927</td>
<td>42° 28' 46.466&quot;</td>
<td>70° 50' 14.633&quot;</td>
<td>1433.8 (417.6) 334.2 (1036.3)</td>
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<td>TOM MOORES ROCK BEACON (USE), 1940</td>
<td>Vol. I Pg. 507</td>
<td>42° 29' 41.270&quot;</td>
<td>70° 49' 48.699&quot;</td>
<td>1273.4 (578.0) 1112.1 (258.0)</td>
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<tr>
<td>GREAT PIG ROCK (USE), 1940</td>
<td>Vol. I Pg. 288</td>
<td>&quot;</td>
<td>42° 27' 44.595&quot;</td>
<td>70° 51' 09.925&quot;</td>
<td>1376.0 (475.3) 226.8 (1144.0)</td>
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COMPUTED BY: L.L.G DATE: 10/12/66
CHECKED BY: J.S.P. DATE: 10/17/66
COMPILATION REPORT

Map T-12983

Project PH-5601

All map features north of Lat. 42° 28' 30" were compiled at 1:5,000 scale on T-12976 and T-12977, photographically reduced to 1:10,000 scale, then transferred to the manuscript for T-12983 by tracing. See the COMPILATION REPORTS for T-12976 and T-12977.

There are no non-floating aids of landmarks on this map that have not been submitted with T-12976 and T-12977. Copies of Form 567 for these maps are submitted as part of this report.

Great Pig Rocks and ledges in that vicinity were mapped at 1:10,000 scale by setting Model 65 S 7239-7240.

Submitted:

Charles H. Bishop
Cartographer

Approved:

Albert C. Rauck, Jr.
Chief, Coastal Mapping Section, AMC
GEOGRAPHIC NAMES

FINAL NAME SHEETS

Ph-6601 (Boston to Plum Island, Mass.)

T-12983

Boden Point
Castle Rock
Devereux
Devereux Beach
Dolphin Rock
Flying Point
Great Pig Rocks
Ladys Cove
Little Pig Rocks
Marblehead
Marblehead Channel
Marblehead Harbor
Marblehead Neck
Massachusetts Bay
Ram Island
Roaring Bull
Sammy Rock
Skinner Head
Southwest Breakers
Tinkers Island
Tom Moore Rock

Prepared by:  

C. E. Harrington
Staff Geographer
49. NOTES FOR THE HYDROGRAPHER AND FIELD EDITOR

Separate edit ozalids have been prepared for your respective uses. These are intended to simplify your efforts and eliminate the possibility of any duplication of edit procedures.

On each are noted pertinent remarks concerning doubtful interpretations or items of compilation requiring additional clarification and/or verification.

For the field editor, notes include all items inshore from the approximate M.L.W.L. All offshore items are noted for the Hydrographer's attention.

Among these items requiring edit by both parties, are "Landmarks and Aids". These are indicated by a numeral. The following key is an explanation of the attention they may require:

1. Object not visible on photos. Verify by edit.
2. Object visible, position verified.(by compiler)
3. Object visible, position re-determined. Verify by edit.
4. Object which may be a landmark or new aid. Verify by edit.

Forms 567 should be submitted for all "Landmarks and Aids".
## PHOTограмmetric Office Review
### T-12983

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### Control Stations

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<th>6. Recoverable Horizontal Stations of Less Than Third-Order Accuracy (Topographic Stations)</th>
<th>7. Photo Hydro Stations</th>
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<td>CHB</td>
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### Bench Marks

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<td>X</td>
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<td>Bridge - W.O.</td>
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### Alongshore Areas (Nautical Chart Data)

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### Aids to Navigation

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### Physical Features

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### Cultural Features

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### Boundaries

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<th>31. Boundary Lines</th>
<th>32. Public Land Lines</th>
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### Miscellaneous

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<th>33. Geographic Names</th>
<th>34. Juncions</th>
<th>35. Legibility of the Manuscript</th>
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### Photographic Overlay

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<tr>
<td>LON</td>
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### Remarks

- **A.L. Shands** Aug. 8, 1972 A.C. Rauck, Jr.
- **Lowell Neterer**
- **Reviewer: Charles H. Bishop**
- **Field Edit Applied: Reductions of T-12976 and T-12977.**
<table>
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<tr>
<th>State</th>
<th>Description</th>
<th>Signal Name</th>
<th>Latitude</th>
<th>Longitude</th>
<th>Datum</th>
<th>Method of Location and Survey No.</th>
<th>Date of Verification</th>
<th>Charts Affected</th>
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<td>MA</td>
<td>Salem Harbor Approaches</td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Marblehead Harbor</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Marblehead Lighthouse, 1914)</td>
<td></td>
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<td></td>
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<tr>
<td></td>
<td>Ht. = 108 (137) ft.</td>
<td></td>
<td>12.187</td>
<td>-70 50</td>
<td>69.7</td>
<td>N.A. T-12976 6/7/68</td>
<td>x</td>
<td>2h1, 2k0</td>
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<tr>
<td>MA</td>
<td>Salem South Channel</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Kettlebottom Daybeacon (1911)</td>
<td></td>
<td>12.823</td>
<td>292.7</td>
<td></td>
<td>6/7/68 x</td>
<td>2h1, 2k0</td>
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<tr>
<td>MA</td>
<td>Nahant Bay Approach</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td>Roaring Bull Daybeacon (1916)</td>
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<td>14.633</td>
<td>331.2</td>
<td></td>
<td>6/7/68 x</td>
<td>2h1, 2k0</td>
<td></td>
</tr>
</tbody>
</table>

This form shall be prepared in accordance with Hydrographic Manual, Publication 20.2, Sec. 1-55, 2-39, 6-36, 7-18 to 22 inclusive, and Fig. 79. Positions of shel'd and non-flowing aids to navigation, if redetermined, shall be reported on this form. Revisions shall show both the old and new positions. The data should be submitted for the charts of the area and not by individual field survey sheets. Information under each column heading should be given. This form should be completed by the person in charge of the survey.
I recommend that the following objects which have (been) inspected from seaward to determine their value as landmarks be charted on (the) charts indicated.

The positions given have been checked after listing by

<table>
<thead>
<tr>
<th>CHARTING NAME</th>
<th>DESCRIPTION</th>
<th>SIGNAL NAME</th>
<th>LATITUDE</th>
<th>LONGITUDE</th>
<th>DATUM</th>
<th>METHOD OF LOCATION AND SURVEY NO.</th>
<th>DATE OF LOCATION</th>
<th>CHARTS AFFECTED</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SALEM HARBOR APPROACHES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>MARBLEHEAD HARBOR</strong></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CHURCH TOWER</strong></td>
<td>Church Tower Wood White Dark Top Ht. = 85(135) ft.</td>
<td>42 30</td>
<td>628</td>
<td>70 51</td>
<td>00.38</td>
<td>N.A.</td>
<td>Photo</td>
<td>T-12976</td>
</tr>
<tr>
<td><strong>STANDPIPE</strong></td>
<td>Standpipe steel grey Ht. = 100(180) ft.</td>
<td>36.59</td>
<td>27.38</td>
<td>1927</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>STACK</strong></td>
<td>Stack Brick, yellow Ht. = 70(135) ft.</td>
<td>47.67</td>
<td>30.88</td>
<td>105</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOWER</strong></td>
<td>Radio Tower Steel Ht. = 187(227)</td>
<td>42 31</td>
<td>184</td>
<td>14.67</td>
<td>6/13/68</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>OBS. TOWER</strong></td>
<td>Obs. Tower Concrete, green Ht. = 55(95) ft.</td>
<td>42 29</td>
<td>871</td>
<td>70 50</td>
<td>335</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>FLAGPOLE</strong></td>
<td>Flagpole wood white, gold ball atop Ht. = 35(45) ft.</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>SALEM HARBOR APPROACHES</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>FLAG TOWER</strong></td>
<td>(Marblehead Weather Service Display Tower 1914) Skeleton Steel Ht=75(105)ft</td>
<td>42 30</td>
<td>31.72</td>
<td>70 50</td>
<td>30.28</td>
<td>N.A.</td>
<td>Triang.</td>
<td></td>
</tr>
<tr>
<td><strong>STANDPIPE</strong></td>
<td>(Marblehead Yellow Standpipe, 1914) Steel Ht=100(175) ft.</td>
<td>02.555</td>
<td>54.770</td>
<td>1227</td>
<td>T-12976</td>
<td>6/7/68</td>
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</tr>
<tr>
<td><strong>TOWER</strong></td>
<td>(Marblehead Abbot Tower, 1919) Brick Ht = 155(215) ft.</td>
<td>78.8</td>
<td>1250.6</td>
<td>6/13/68</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CHURCH TOWER</strong></td>
<td>(Marblehead First Congregational Church, 1919) Wood Ht=75(135) ft.</td>
<td>08.862</td>
<td>35.145</td>
<td>6/7/58</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This form shall be prepared in accordance with Hydrographic Manual, Publication 20.2, Secs. 1-35, 2-19, 6-35, 7-18 to 52 inclusive, and Fig. 52. Positions of charted landmarks and nonforaging aids to navigation, if determined, shall be reported on this form. Revisions shall show both the old and new positions. The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

* Tabulate seconds and meters
I recommend that the following objects which have been inspected from seaward to determine their value as landmarks be charted on the charts indicated.

The positions given have been checked after listing by B. Barge.

<table>
<thead>
<tr>
<th>Charting Name</th>
<th>Description</th>
<th>Signal Name</th>
<th>Latitude</th>
<th>Longitude</th>
<th>Datum</th>
<th>Method of Location and Survey No.</th>
<th>Date of Location</th>
<th>Chart No.</th>
<th>CHART No.</th>
<th>CHARTS AFFECTED</th>
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<tbody>
<tr>
<td>SALEM HARBOR APPROACHES</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>CAT ISLAND CHANNEL</td>
<td>Satan Rock Daybeacon (Satan Rocks Beacon 1914)</td>
<td></td>
<td>42 30</td>
<td>36.535</td>
<td>70 48</td>
<td>03.330</td>
<td>N.A.</td>
<td>T-12977</td>
<td>10/2/67</td>
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<tr>
<td>DAYBEACON</td>
<td>Brit-Bles Daybeacon (Brit-Bles Beacon 1914)</td>
<td></td>
<td>42 31</td>
<td>1127 3</td>
<td>70 48</td>
<td>76.0</td>
<td>03.263</td>
<td>T-12977</td>
<td>10/2/67</td>
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<tr>
<td>MARBLEHEAD CHANNEL</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>DAYBEACON</td>
<td>(off Moore Rock Daybeacon) (for Moore Rock Beacon 1914)</td>
<td></td>
<td>42 29</td>
<td>11270</td>
<td>70 49</td>
<td>1112</td>
<td>6/7/67</td>
<td></td>
<td></td>
<td>240, 241</td>
</tr>
</tbody>
</table>

This form shall be prepared in accordance with Hydrographic Manual, Publication 20.2, Sec. 1-55, 2-39, 6-36, 7-18 to 22 inclusive, and Fig. 79. Positions of charted landmarks and nonfloating aids to navigation, if redetermined, shall be reported on this form. Revisions shall show both the old and new positions. The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.
I recommend that the following objects which have been inspected from seaward to determine their value as landmarks be the charts indicated.

The positions given have been checked after listing by

Lowell O. Neterer, Jr.
Director, AMC

Allen L. Powell
Chief of Party

<table>
<thead>
<tr>
<th>STATE</th>
<th>MASSACHUSETTS</th>
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<tbody>
<tr>
<td>CHARTING NAME</td>
<td>POSITION</td>
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<td>DESCRIPTION</td>
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<td>LONGITUDE</td>
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<td>DATUM</td>
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<td>METHOD OF LOCATION AND SURVEY NO.</td>
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<td>DATE OF OCCURRENCE VERIFI.</td>
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<td>CHARTS AFFECTED</td>
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<td></td>
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<tr>
<td></td>
<td>SALEM HARBOR APPROACHES</td>
</tr>
<tr>
<td></td>
<td>MARBLEHEAD HARBOR</td>
</tr>
<tr>
<td>TANDPIPE</td>
<td>(Marblehead Black Standpipe, 1919)</td>
</tr>
<tr>
<td></td>
<td>42 29 58.610 70 51 1666.4 1227 T-12976 5/24/68</td>
</tr>
<tr>
<td>TANDPIPE</td>
<td>Destroyed</td>
</tr>
<tr>
<td></td>
<td>42 30.2 70 51.5</td>
</tr>
</tbody>
</table>

*Report destroyed by Field Party.*

This form shall be prepared in accordance with Hydrographic Manual, Publication 20.2, Sec. 1-55, 2-19, 6-16, 7-18 to 22 inclusive, and Fig. 79. Positions of charted landmarks and nonfloating aids to navigation, if determined, shall be reported on this form. Revisions shall show both the old and new positions. The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.
REVIEW REPORT T-12983
SHORELINE
DECEMBER, 1973

61. GENERAL STATEMENT:

See Summary which is page six (6) of the Descriptive Report.

The mainland areas of this survey is covered by T-12976 and T-12977 at 1:5,000 scale. This has been reduced in size to be included on this survey of 1:10,000 scale. The area of 24° 28' 30" is classified as Class III since no field inspection report or data can be found.

62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS:

See reports for T-12976 and T-12977.

63. COMPARISON WITH MAPS OF OTHER AGENCIES:

Comparison was made with USGS Quadrangle Marblehead South, MA, 1956 at 1:24,000 scale. Visual comparison showed good agreement with the following exception, Sammy Rock could not be positively identified on the low water photography. The low water photography was flown at a stage of tide 3 ft. below mean low water.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS:

See reports for T-12976 and T-12977. The area around Ram Island and further south was not available in this office at this time.

65. COMPARISON WITH NAUTICAL CHARTS:

See reports for T-12976 and T-12977.

66. ADEQUACY OF RESULTS AND FUTURE SURVEYS:

This survey meets project instructions and the National Standards of Map Accuracy.
Reviewed by:

Bernard Kurs
Cartographer

Approved for forwarding:

Victor E. Serena
Chief, Photogrammetric Branch, AMC

Approved:

Randall C. Forrest
Chief, Photogrammetric Branch for Chief, Coastal Mapping Division
REVIEW REPORT T-12976

SHORELINE

December, 1973

61. GENERAL STATEMENT:

See summary which is page 6 of the Descriptive Report.

62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS:

Comparison was made with Registered Survey 3766 at 1:10,000 scale, dated 1919. There is only general agreement of the two surveys because of the date difference and the difference of datum.

This survey supersedes the prior listed survey for nautical chart construction purposes.

63. COMPARISON WITH MAPS OF OTHER AGENCIES:

Comparison was made with USGS Quads Marblehead North and Marblehead South, Mass. dated 1956 at 1:24,000, scale. There is good general agreement. Because of the difference in scale only a visual comparison could be made.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS:

Comparison was made with Boat Sheets H-9010 and H-9012 at 1:5,000 scale dated 1968. Also, with Boat Sheet H-9094 at 1:10,000 scale dated 1969. There was very good agreement.

65. COMPARISON WITH NAUTICAL CHARTS:

Comparison was made with Chart 241 at 1:10,000, scale dated July 29, 1972. There was very good agreement between the two. The only significant difference is the location of a long pier at Cloutman Pt. This is shown on the discrepancy print in red.

66. ADEQUACY OF RESULTS AND FUTURE SURVEYS:

This survey complies with project instruction and meets the National Standards of Map Accuracy.
REVIEW REPORT T-12977

SHORELINE

December, 1973

61. GENERAL STATEMENT:

There is no field edit ozalid or field edit report for this survey. The compiler refers to a hydro edit sheet as a source of field edit corrections. This sheet was not forwarded with the survey and cannot be located in the compilation section.

See summary which is page 6 of the descriptive report.

62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS:

Comparison was made with Registered Survey 3766, 1919 at 1:10,000 scale. Because of a datum difference only a visual comparison was made. The only apparent changes are natural ones and the time interval between the surveys account for them.

This survey supersedes the prior listed survey for nautical chart construction purposes.

63. COMPARISON WITH MAPS OF OTHER AGENCIES:

Comparison was made with USGS Quadrangles Marblehead North and Marblehead South, Mass., 1956 at 1:24,000. The visual comparison between the surveys was very good.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS:

Comparison was made with Boat Sheet H-9012, 1968 at 1:5,000 scale. Both surveys are in good agreement.

65. COMPARISON WITH NAUTICAL CHARTS:

Comparison was made with Chart 241, July 29, 1972 at 1:10,000 scale. The only significant differences were Cat Island and the adjacent islets. The shorelines show considerable change. A visual check with Chart 240, May 19, 1973 at 1:25,000 scale shows a different shape to South Gooseberry Island. The changes dealing with Cat Island and vicinity are shown in red on the discrepancy print.

66. ADEQUACY OF RESULTS AND FUTURE SURVEYS:

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