FORM C&G-504

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey: Shoreline (Photogrammetric)

Field No.: Office No. T-12972

LOCALITY

State: Massachusetts
General locality: Boston to Plum Island
Locality: Beverly Harbor

1965-47

CHIEF OF PARTY

Allen L. Powell, Director, AMC

LIBRARY & ARCHIVES

DATE
**PROJECT NO. (II):**

Ph-6601

**FIELD OFFICE (III):**

CHIEF OF PARTY

**PHOTOMGRAMMETRIC OFFICE (III):**

OFFICER-IN-CHARGE

Atlantic Marine Center, Norfolk, Virginia

Allen L. Powell

Director, AMC

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

Field - August 4, 1965
Field - August 19, 1965 Provisional instructions, Aerial photography
Office - October 8, 1965 Instructions, Aerotriangulation
Office - January 27, 1966
Office - February 2, 1966 Instructions, Aerotriangulation
Office - April 28, 1966
Field - May 20, 1966 Supplement I
Office - July 11, 1966 Supplement I

**METHOD OF COMPILED (III) (III):**

Kelsh, Wild B-8, and graphic

**MATERIAL SCALE (III):**

1:5,000

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

1:3,000 pantographed to 1:5,000 - Kelsh
1:7,500 pantographed to 1:5,000 - B-8

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

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

**APPLIED TO CHART NO.:**

**DATE:**

**DATE REGISTERED (IV):**

SEP'T 1975

**GEGRAPHIC DATUM (III):**

NA 1927

**VERTICAL DATUM (III):**

NEW EXCEPT AS FOLLOWS:

Elevations shown as (35) refer to mean high water
Elevations shown as (3) refer to sounding datum
i.e., mean low water or mean lower low water

**REFERENCE STATION (III):**

BEVERLY FIRST BAPTIST CHURCH 1914

**LAT.:**

42° 32' 53''602(1653.9m)

**LONG.:**

70° 52' 44''259(1009.8m)

**PLANE COORDINAT (IV):**

564,783.88 ft. x = 767,354.20 ft.

**STATE:**

Massachusetts

**ZONE:**

Mainland

**ADJUSTED**

**UNADJUSTED**

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.
# DESCRIPTIVE REPORT - DATA RECORD

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

- Date of Photography, August 1965
- Air Photo Compilation, graphic

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<td>A. E. Roundtree</td>
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<td>R. Glaser</td>
<td>06-03-66</td>
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<td>L. Neterer</td>
<td>09-23-66</td>
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**Radial Plot or Stereoscopic Control Extension by (iii):**

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<td>C. Blood</td>
<td>09-23-66</td>
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**Stereoscopic Instrument Compilation (iii):**

- Planimetry
  - A. L. Shands
  - Rev. by: L. O. Neterer
  - Date: 1-12-67

**Contours**

**Wild B-8 - Kelsh Plotter**

- Inapplicable

**Manuscript Delineated by (iii):**

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**Scribing by (iii):**

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<tr>
<td>B. Wilson</td>
<td>9-9-69</td>
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**Photogrammetric Office Review by (iii):**

- Compilation: C. H. Bishop
- Date: 2-10-67
- Field Edit: R. J. Pate
  - Scribing & Stick up: R. E. Smith
  - Date: 10-10-69

**Remarks:**

Field Edit by: E. W. Hartford

Date: September & October 1967
**Photographs (III)**

<table>
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<th>NUMBER</th>
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<th>SCALE</th>
<th>STAGE OF TIDE</th>
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<td>6SS(C)-7363 thru 7365</td>
<td>8/31/65</td>
<td>0912 EST</td>
<td>1:15,000</td>
<td>0.1 ft. above MLW*</td>
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<td>1:15,000</td>
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<td>0951 EST</td>
<td>1:15,000</td>
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**Tide (III)**

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<th>REFERENCE STATION:</th>
<th>Boston, Mass. (Predicted)</th>
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<tr>
<td>SUBORDINATE STATION:</td>
<td>Beverly (Predicted)</td>
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**Washington Office Review by (IV):**

<table>
<thead>
<tr>
<th>Bernard Kurs</th>
</tr>
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**Remarks:**

*The stage of tide at the time of photography was determined by staff readings at Gloucester Harbor (Ten Pond Island) at that time. See Instructions - OFFICE, dated 28 April 1966.*
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<td>Streets and inshore details</td>
<td>September 1969</td>
<td>Superseded</td>
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<tr>
<td>reviewed and corrected</td>
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<tr>
<td>Final Review</td>
<td>December, 1975</td>
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JOB PH-6601
BOSTON TO PLUM ISLAND
SHORELINE MAPPING AT 1:5,000 & 1:10,000 SCALE
CHART 613-SC
CHART TOPOGRAPHY AT 1:40,000 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 hydrographer's 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-12972
Job 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 for 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,

[Signature]

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

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

1. MEAD 2 (MGS), 1934
   target (+0.1, +0.1)
   sub. pt. (-0.9, +1.2)

2. CHORRE, 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)
   R.M. #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 D垩K SPIRE, 1842.
   target (-6.0, +0.8)
   sub pt. A (-7.1, +3.1)

8. SALEM, NEW ENGLAND POWER CO., SOUTH STACK, 1954
   office identified (+4.8, +1.9)

9. FORT PICKERING LIGHTHOUSE, 1827
   office identified (+6.0, +1.0)

10. HIGH ROCK 2 (MGS)
    sub pt. A (+3.2, -4.4)
    sub pt. B (+2.0, -2.8)

11. HIGH ROCK 3, 1943
    office identified (+1.8, -3.7)

12. REVERE CATHOLIC CHURCH TOWER, 1934
    office identified (-4.0, -4.0)

13. BOOTH (MGS), 1934
    sub pt. A (+3.4, -1.4)

14. CHELSEA QUIGLEY MEM. HOSPITAL W.T., 1955
    office identified (-1.5, +2.2)

15. MEDFORD RADIO STATION WEEI-AM TOWER, 1953
    office identified (+2.1, -1.0)

16. MEDFORD TV STATION WNAG TOWER, 1953
    office identified (+5.3, -1.0)
22. MEDFORD RADIO STATION WEZT, NE TOWER, 1955
   office identified (+14, +3.0)

23. MEDFORD RADIO STATION WEEI, SW TOWER, 1955
   office identified (+1.2, +3.1)

24. MEDFORD RADIO STATION WEEI, SW TOWER, 1955
   office identified (+1.2, +3.1)

STRIP #3

25. BOSTON STATE HOUSE, 1934
   office identified (+26, +5.5)

27. BOSTON CUSTOM HOUSE TOWER, 1916
   office identified (+3.2, +4.7)

25. CHARLESTOWN BUNKER HILL MON., 1846
   office identified (+22, +0.1)

26. EAST BOSTON, BOSTON AND ALBANY R.R. TANK, 1916
   office identified (+1.6, +5.5)

27. CHELSEA QUIGLEY MEM. HOSPITAL W.T., 1952
   office identified (+7.3, -2.0)

17. REVERE CATHOLIC CHURCH TOWER, 1934
   office identified (-4.0, -5.0)

18. REVERE BEACH STACK, 1919
   office identified (-41, -2.2)

14. HIGH ROCK #2
   sub. pt. B (+2.9, +3.9)

16. NAVANT COAST GUARD CUPOLA, 1919
   office identified (+3.6, +6.4)
13. Swampscott High School Finial, 1940
   office identified (+0.7, +3.4)

12. Swampscott Larger Standpipe, 1934
   office identified (+0.7, +1.8)

11. Marblehead, Abest Tower, 1717
   office identified (-0.6, +1.0)

10. Marblehead Lighthouse, 1714
    target (-3.5, -5.8)
    sub pt A (-4.1, -5.2)

  1. Head 2 (M.GS), 1934
    target (+3.8, -0.2)
    sub pt (-1.6, -1.2)

  5. Stonehaven (Rockport Town (M.GS)), 1939
    target (-2.1, +0.3)
    sub pt A (-1.3, +1.6)
    sub pt B (-2.0, +1.2)

  6. Straitsmouth Lighthouse, 1902
    office identified (-3.1, -5.2)
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| STATION                        | SOURCE OF INFORMATION (INDEX) | DATUM    | LATITUDE OR Y COORDINATE | LONGITUDE OR X COORDINATE | N.A. 1927 - DATUM
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COMPILATION REPORT
T-12972
Job PH-6601

31. **DELINEATION:**

   East of longitude 70° 54' 30" the mean high water line was delineated graphically from infrared ratios taken at mean high water. All other detail east of longitude 70° 54' 30" was compiled with the Wild B-8 from color photography taken at mean low water. West of longitude 70° 54' 30" all features were compiled with the Kelsh plotter from infrared photographs taken at mean high water except the foreshore area and shallow areas, which were compiled graphically from color ratio photographs taken at mean low water.

   There was no field inspection.

32. **CONTROL:**

   See Photogrammetric Plot Report, dated November 1, 1966.

33. **SUPPLEMENTAL DATA:**

   None.

34. **CONTOURS AND DRAINAGE:**

   Contours are inapplicable. No drainage was delineated on this map.

35. **SHORELINE AND ALONGSHORE DETAILS:**

   See Item 31. All shoreline and foreshore areas including all piers, ledge and shallow lines were delineated from office interpretation. Rock elevations were determined from the Wild B-8 and the Hydrographer has been asked to verify them.

36. **OFFSHORE DETAILS:**

   No statement.

37. **LANDMARKS AND AIDS:**

   Appropriate copies of Form 567's for landmarks and aids have been forwarded to the Washington Office under date November 22, 1967.
38. **CONTROL FOR FUTURE SURVEYS:**

   None.

39. **JUNCTIONS:**

   Junctions are in agreement with T-12973 (1:5,000) and T-12979 (1:10,000) to the east, T-12978 (1:10,000) and T-12975 (1:5,000) to the south and T-12978 (1:10,000) to the west. There is no contemporary survey to the north.

40. **HORIZONTAL AND VERTICAL ACCURACY:**

   No statement.

46. **COMPARISON WITH EXISTING MAPS:**

   Comparison has been made with USGS Quadrangle Salem, Massachusetts scale 1:24,000 dated 1956.

47. **COMPARISON WITH NAUTICAL CHARTS:**

   Comparison has been made with USGS Chart No. 241, scale 1:10,000, 3rd edition, dated September 3, 1963, and Chart 240, scale 1:25,000, 8th edition, dated February 8, 1965.

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

None.

**ITEMS TO BE CARRIED FORWARD:**

None.

Submitted:

A. L. Shands
Cartographic Aid

Approved and forwarded:

Allen L. Powell
Director, Atlantic Marine Center
Sept. 24, 1973

GEOGRAPHIC NAMES

FINAL NAME SHEETS

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

T-12972

Bass River
Beverly
Beverly Harbor
Boston and Maine (RR)
Collins Cove
Danvers River
Fort Lee
Posters Point
Green Hill
Lobster Rocks
North River
North Salem
Peters Point
Porter River
Prospect Hill
Rams Horn Rock
Salem
Salem Neck
Salters Point
Tuck Point

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".
<table>
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<th>2. TITLE</th>
<th>3. MANUSCRIPT NUMBERS</th>
<th>4. MANUSCRIPT SIZE</th>
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**CONTROL STATIONS**

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<tr>
<th>5. HORIZONTAL CONTROL STATIONS OF THIRD-ORDER OR HIGHER ACCURACY</th>
<th>6. RECOVERABLE HORIZONTAL STATIONS OF LESS THAN THIRD-ORDER ACCURACY (Topographic Stations)</th>
<th>7. PHOTO HYDRO STATIONS</th>
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**BENCH MARKS**

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<th>8. BENCH MARKS</th>
<th>9. PLOTTING OF SEXTANT FIXES</th>
<th>10. PHOTOGRAPHIC PLOT REPORT</th>
<th>11. DETAIL POINTS</th>
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**ALONGSHORE AREAS (Nautical Chart Data)**

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<tr>
<th>12. SHORELINE</th>
<th>13. LOWWATER LINE</th>
<th>14. ROCKS, SHOALS, ETC.</th>
<th>15. BRIDGES</th>
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**AIDS TO NAVIGATION**

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<tr>
<th>16. AIDS TO NAVIGATION</th>
<th>17. LANDMARKS</th>
<th>18. OTHER ALONGSHORE PHYSICAL FEATURES</th>
<th>19. OTHER ALONGSHORE CULTURAL FEATURES</th>
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**PHYSICAL FEATURES**

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<thead>
<tr>
<th>20. WATER FEATURES</th>
<th>21. NATURAL GROUND COVER</th>
<th>22. PLANETABLE CONTOURS</th>
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**STEREOSCOPIC INSTRUMENT CONTOURS**

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<tr>
<th>23. STEREOSCOPIC INSTRUMENT CONTOURS</th>
<th>24. CONTOURS IN GENERAL</th>
<th>25. SPOT ELEVATIONS</th>
<th>26. OTHER PHYSICAL FEATURES</th>
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**CULTURAL FEATURES**

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<tr>
<th>27. ROADS</th>
<th>28. BUILDINGS</th>
<th>29. RAILROADS</th>
<th>30. OTHER CULTURAL FEATURES</th>
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**BOUNDARIES**

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<th>32. PUBLIC LAND LINES</th>
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**MISCELLANEOUS**

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<tr>
<th>33. GEOGRAPHIC NAMES</th>
<th>34. JUNCTIONS</th>
<th>35. LEGIBILITY OF THE MANUSCRIPT</th>
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<tr>
<th>36. DISCREPANCY OVERLAY</th>
<th>37. DESCRIPTIVE REPORT</th>
<th>38. FIELD INSPECTION PHOTOGRAPHS</th>
<th>39. FORMS</th>
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**REVIEWER**

<table>
<thead>
<tr>
<th>Charles E. H. Bishop</th>
<th>Supervvisor, Review Section or Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>C. H. Bishop</td>
<td>Albert C. Rauck, Jr.</td>
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**REMARKS**

Field Edit applied from: Field Edit Ozalid; Field photographs Nos. 65-5-7314, 7364, & 7365
FIELD EDIT REPORT
PH - 6601
T-I2965 T-I2972 T-I2980
Boston to Plum Island

GENERAL NOTES
This report is submitted for three T-sheets, field edited September and October 1967.
Discrepancies on sheet T-I2980 except one, and the western edge of sheet T-I2965 were field edited and noted on manuscript T-I2974 1:5000 scale completed June this year.

51 METHODS
Field edit was accomplished by the following methods, by skiff and truck travel and by walking sections of the shoreline.
All rock and ledge areas were inspected at or near low water, rock heights were taken by hand level from mean high water line or mean low water.
All discrepancies on the black and white prints have been verified or referenced to photographs. Deletions are noted on the discrepancy print and on the photos. All notations, corrections, or additions other than deletions are noted in violet on the photographs.
Notations on the photographs by sheet numbers are as follows: T-I2972 T-I2955 T-I2980
65-s-7314 65-s-7217 65-s-7243 7217
7364 7218 7243
7365 7244

52 ADEQUACY OF COMPILATION
The compilation of ledges, rock hts, and locations as a whole appeared to be good. A few objects such as sunken barrels and
stumps photographed like rocks. Compilation of Piers, roads, and building was found to be very good.

54 RECOMMENDATIONS

NONE

56 ROCKS

All rocks in question are noted on the discrepancy print and referenced to the photo. All additional rocks recommended for charting are inked on the following photographs:

T-I2972  T-I2965  T-I2980
65-S-7314  65-S-7217  65-S-7217
7364  7243
7365

57 NAUTICAL LANDMARKS AND FIXED AIDS

All nautical landmarks and fixed aids were inspected and submitted on form 567.

All bluffs were investigated offshore and bluffs recommended for charting are noted on the following photos: 65-S-7243 and 7244.

58 LANDMARK BUILDINGS

All additional landmark buildings recommended for charting are circled on the following photos 65-S-7217, 7243, 7244 and 7365.

Three buildings were deleted on manuscript T-I2972.

All Public buildings are circled on the following photos: 65-S-7244, 7364 and 7365.

59 ROADS

All roads deletions and classifications for T-I2972 are noted on the manuscript.

Road deletions for T-I2965 are noted on the manuscript. All additional roads are inked on Photo 65° S- 7244.

Submitted by
NONFLOATING AIDS OR LANDMARKS FOR CHARTS

Atlantic Marine Center November 14, 1967

R. R. White

J. Bull, RADN, USESSA

Director, AMC Chief of Party

STATE

MASSACHUSETTS

CHARTING NAME

BEVERLY

STACK
Concrete ht. = 105 (115)
Red Brick Square
ht. = 85 (115)
(Beverly United Shoe Mfg. Co. Stack 1934) ht. = 225 (245)
(Beverly St. Mary's Church Spire 1914) ht. = 140 (190)
(Beverly First Baptist Church Spire 1914) Spire ht. = 155 (205)

SALEM

STACK
Brick, Red Square
ht. = 95 (105)
CHURCH
Metal, Blue
DOME
ht. = 70 (80)

* See Form 567 NONFLOATING AIDS TO BE CHARTED

<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 &amp; SURVEY NO.</th>
<th>DATE OF LOCATION</th>
<th>CHARTS AFFECTED</th>
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<tr>
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<td></td>
<td></td>
<td>42 33</td>
<td>19.32</td>
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<td>N.A.</td>
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<tr>
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<td>42 33</td>
<td>596</td>
<td>70 53</td>
<td>389</td>
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<tr>
<td></td>
<td>Red Brick Square</td>
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<td>42.03</td>
<td>70 53</td>
<td>6.40</td>
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<tr>
<td></td>
<td>(Beverly United Shoe Mfg. Co. Stack 1934) ht. = 225 (245)</td>
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<td>1046.4</td>
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<td>368.4</td>
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<td>(Beverly St. Mary's Church Spire 1914) ht. = 140 (190)</td>
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<td>58.850</td>
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<td>14.23</td>
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<td>32.89</td>
<td>7.14</td>
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<td>1015.7</td>
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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.
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<thead>
<tr>
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<th>Signal Name</th>
<th>Latitude</th>
<th>Longitude</th>
<th>Datum</th>
<th>Method of Location and Survey</th>
<th>Date of Location</th>
<th>Chart Affected</th>
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<tr>
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<tr>
<td>STACK</td>
<td>(North Stack) ht. = 250 (260)</td>
<td>42 31</td>
<td>34.390</td>
<td>007.103</td>
<td>N.A.</td>
<td>Triang, Verifi.</td>
<td>9/21/67</td>
<td>1207</td>
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<td>34.390</td>
<td>007.103</td>
<td>N.A.</td>
<td>Triang, Verifi.</td>
<td>9/21/67</td>
<td>1207</td>
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* Take seconds and meters
NONFLOATING AIDS OR LANDMARKS FOR CHARTS

Atlantic Marine Center November 14, 1967

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

R. R. White

for J. Bull, RADM, USESSA

Director, AMC

Chief of Party

<table>
<thead>
<tr>
<th>STATE</th>
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<tr>
<td>CHARTS AFFECTED</td>
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**SALEM HARBOR APPROACHES**

**MAIN CHANNEL**

*LIGHT (Beverly First Baptist Church 1914) Hospital Point Range*

Rear Light.

**BEVERLY HARBOR**

**DAYBEACON Lobster Rocks Daybeacon (Lobster Rocks Beacon 1914)**

**RAMS HORN CHANNEL**

**DAYBEACON Rams Horn Rock Daybeacon (Rams Horn Beacon 1914)**

* See Form 567 LANDMARKS TO BE CHARTED

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.

*TAKE SECONDS AND METERS*
I recommend that the following objects which have (N/A) 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 R.R. White

Director, AMC

**MASSACHUSETTS**

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<td>COLLINS COVE</td>
<td>Transm. Skeleton Steel Gray</td>
<td>42 171</td>
<td>57.36°</td>
<td>1.71°</td>
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<tr>
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<td>53.96°</td>
<td>44.26°</td>
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<td>9/21/67</td>
<td>X 1207</td>
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<tr>
<td>TOWER</td>
<td>ht. = 117 (127)</td>
<td>1665</td>
<td>50 52°</td>
<td>10/10°</td>
<td>N.A.</td>
<td>Photo.</td>
<td>9/21/67</td>
<td>X 1207</td>
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<tr>
<td>DANVERS RIVER</td>
<td>Transm. Skeleton Steel Gray</td>
<td>42 32</td>
<td>19.12°</td>
<td>54.91°</td>
<td>N.A.</td>
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<td>X 240SC, 241SC</td>
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<tr>
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<td>ht. = 90 (100)</td>
<td>531</td>
<td>70 53°</td>
<td>1246°</td>
<td>1207</td>
<td>Photo.</td>
<td>9/21/67</td>
<td>X 1207</td>
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<tr>
<td>SOUTH</td>
<td>Transm. Skeleton Steel Gray</td>
<td>42 32</td>
<td>18.8°</td>
<td>54.6°</td>
<td>N.A.</td>
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<td>9/21/67</td>
<td>X 1207</td>
</tr>
<tr>
<td>TOWER</td>
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<td>70 53°</td>
<td>1246°</td>
<td>1207</td>
<td>Photo.</td>
<td>9/21/67</td>
<td>X 1207</td>
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<td>42 32</td>
<td>14.9°</td>
<td>44.43°</td>
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<td>1014°</td>
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<td>11.02°</td>
<td>38.34°</td>
<td>N.A.</td>
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<td>X 1207</td>
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<td>TOWER</td>
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<td>360</td>
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<td>42 32</td>
<td>5.19°</td>
<td>26.42°</td>
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<td>9/21/67</td>
<td>X 1207</td>
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<tr>
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<td>603°</td>
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<td>9/21/67</td>
<td>X 1207</td>
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<tr>
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<td>42 32</td>
<td>17.9°</td>
<td>17.09°</td>
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<tr>
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<td>ht. = 170 (180)</td>
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<td>70 53°</td>
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<td>X 1207</td>
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<tr>
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<td>15.17°</td>
<td>20.20°</td>
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<td>9/21/67</td>
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<tr>
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<td>70 53°</td>
<td>461°</td>
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<td>Photo.</td>
<td>9/21/67</td>
<td>X 1207</td>
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**Table of Seconds and Meters**
I recommend that the following objects which have (been) inspected from seaward to determine their value as landmarks be charted on (deleted from) the charts indicated.

The positions given have been checked after listing by R. R. White, Chief of Party, and J. Buell, RADN, USESSA, Director, ANG.

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<th>MASSACHUSETTS</th>
<th>POSITION</th>
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<th>LONGITUDE</th>
<th>DATUM</th>
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<th>DATE OF LOCATION</th>
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<tr>
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<td>D. P. METERS</td>
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<tr>
<td>CUPOLA</td>
<td>(Beverly St. Alphonse Catholic Church Cupola 1919) Destroyed</td>
<td>42 32</td>
<td>47.211</td>
<td>70 52</td>
<td>56.995</td>
<td>N.A.</td>
<td>Triang.</td>
<td>Verifi.</td>
</tr>
<tr>
<td>CUPOLA</td>
<td>(Beverly Briscoe Cupola 1934)</td>
<td>42 32</td>
<td>57.284</td>
<td>39.081</td>
<td>N.A.</td>
<td>Triang.</td>
<td>Verifi.</td>
<td>9/20/67</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 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.

* T A B L E  S E C O N D S A N D M E T E R S
REVIEW REPORT T-12972

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 Number 3765, 1919 at 1:10,000 scale. There is a difference in datum so that only a visual comparison was made. In general the two surveys agree except that the time lapse shows considerable change in shoreline both man-made and natural.

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

63. COMPARISON WITH MAPS OF OTHER AGENCIES:

A visual comparison was made with USGS Quadrangle Salem, MASS., 1956 at 1:24,000 scale. The two surveys are in agreement except for man-made and natural changes to the shoreline. The man-made changes are mostly in the Northeast Shore of the Danvers River and Beverly Harbor.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS:

Comparison was made with Boat Sheet H-9009, 1968 at 1:5,000 scale. Both surveys are in very good agreement.

65. COMPARISON WITH NAUTICAL CHARTS:

Comparison was made with Chart 241, July 29, 1972 at 1:10,000 scale, and visual comparison was made with Chart 241, May 19, 1973 at 1:25,000 scale. There are natural and cultural changes which are shown on the discrepancy overlay in red. The significant difference is Lobster Rocks which is shown on the chart as ledge and the field editor describes as a shell bottom.

66. ADEQUACY OF RESULTS AND FUTURE SURVEYS:

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

Reviewed by:

[Signature]
Bernard Kurs
Cartographer
Approved for forwarding:

Victor E. Serena  
Chief, Photogrammetric Branch, AMC

Approved:

[Signature]

Chief, Photogrammetric Branch  for  Chief, Coastal Mapping Division