**NOAA FORM 76–35**

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

**DESCRIPTIVE REPORT**

<table>
<thead>
<tr>
<th>Type of Survey</th>
<th>Shoreline (Photogrammetric)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job No.</td>
<td>T-12978</td>
</tr>
<tr>
<td>Map No.</td>
<td>T-12978</td>
</tr>
<tr>
<td>Classification No.</td>
<td></td>
</tr>
<tr>
<td>Edition No.</td>
<td></td>
</tr>
<tr>
<td>Field Edited</td>
<td></td>
</tr>
</tbody>
</table>

**LOCALITY**

- State: Massachusetts
- General Locality: Boston to Plum Island
- Locality: Salem Harbor

---

**1966 TO 1988**

**REGISTRY IN ARCHIVES**

**DATE**
DESCRIPTIVE REPORT - DATA RECORD
TP-12978

PROJECT NO. (III):
Job PH-6601

FIELD OFFICE (II):
None

CHIEF OF PARTY

PHOTOGRAMMETRIC OFFICE (III):
Atlantic Marine Center

OFFICER-IN-CHARGE
Alfred C. Holmes, Director, AMC

INSTRUCTIONS DATED (III) (IV):
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 I

METHOD OF COMPIILATION (III):
Wild B-8 Plotter 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):

APPLIED TO CHART NO.

DATE:

DATE REGISTERED (IV):
SEPT. 1975

GEOSPHERIC DATUM (III):
N.A. 1927

REFERENCE STATION (III):
Salem, New England Power Co., South Stack, 1954

LAT.:
42° 31' 33.687" (1039.4M)

LONG.:
70° 52' 37.487" (855.6M)

Y = 556,697.83 Ft.

X = 767,920.18 Ft.

PLANE COORDINATES (IV):

MASSACHUSETTS

MAINLAND

HUMAN 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
### TP-12978

### FIELD INSPECTION BY (H): None

### MEAN HIGH WATER LOCATION (III): (STATE DATE AND METHOD OF LOCATION):
- Air photo compilation
- Date of photography: August 24, 1965

### PROJECTION AND GRIDS RULED BY (IV):
- A. E. Roundtree  
  
### PROJECTION AND GRIDS CHECKED BY (IV):
- R. Glaser  
  
### CONTROL PLOTTED BY (III):
- L. Neterer  
  
### CONTROL CHECKED BY (III):
- A. Santillian  
  
### RADIAL PLOT OR STEREOoscopic CONTROL EXTENSION BY (III):
- H. P. Eichert  
  
### STEREOscopic INSTRUMENT COMPIlATION (III):
- PLANIMETRY
  - A. Shands  
    
  - CONTOURS
    
### MANUSCRIPT Delineated by (III):
- A. L. Shands (W. of Long. 70° 55')  
- Reduction of T-12972 traced by A. L. Shands  
- Reduction of T-12975 traced by L. L. Graves  
  
### SCRIBING BY (III):
- C. H. Bishop  
  
### PHOTOGrammetric OFFICE REVIEW BY (III):

### REMARKS:

### DATE:
- 5/27/66
- 6/1/66
- 9/9/66
- 9/9/66
- 11/1/66
- 8/12/67
- 8/23/67
- 6/12/68
- 10/14/68
- 9/12/67
### PHOTOS (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>655(C) 7314 thru 7316</td>
<td>31 Aug 1965</td>
<td>08:41</td>
<td>1:15,000</td>
<td>2.6 ft. above MLW</td>
</tr>
<tr>
<td>655(C) 7221 and 7222</td>
<td>31 Aug 1965</td>
<td>07:30</td>
<td>1:30,000</td>
<td>2.8 ft. above MLW</td>
</tr>
<tr>
<td>655 6918R</td>
<td>24 Aug 1965</td>
<td>08:15</td>
<td>1:30,000</td>
<td>11.3 ft. above MLW</td>
</tr>
</tbody>
</table>

### TIDE (III)

<table>
<thead>
<tr>
<th>REFERENCE STATION:</th>
<th>Boston</th>
<th>RATIO OF RANGE</th>
<th>MEAN RANGE</th>
<th>SPRING RANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUBORDINATE STATION:</td>
<td>Beverly</td>
<td>9.0</td>
<td>10.4</td>
<td></td>
</tr>
<tr>
<td>SUBORDINATE STATION:</td>
<td>Salem</td>
<td>9.0</td>
<td>10.4</td>
<td></td>
</tr>
</tbody>
</table>

**WASHINGTON OFFICE REVIEW BY IV:** Bernard Kurs  
**DATE:** Feb., 1974

**NUMBER OF TRIANGULATION STATIONS SEARCHED FOR (III):** 26  
**RECOVERED:** 19  
**IDENTIFIED:** 7

**NUMBER OF BM(S) SEARCHED FOR (III):** 4  
**RECOVERED:** 3  
**IDENTIFIED:** 1

**NUMBER OF RECOVERABLE PHOTO STATIONS ESTABLISHED (III):**

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

**REMARKS:** The stage of Tide of the photography was determined by staff readings at Gloucester Harbor at the time of photography.
<table>
<thead>
<tr>
<th>Compilation Record</th>
<th>Completion Date</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compilation Complete pending Field Edit</td>
<td>March, 1967</td>
<td>Superseded</td>
</tr>
<tr>
<td>Field Edit applied</td>
<td>July, 1968</td>
<td>Superseded</td>
</tr>
<tr>
<td>Additional field edit applied</td>
<td>Oct., 1968</td>
<td>Superseded</td>
</tr>
<tr>
<td>Transfer of reductions checked, additional field edit applied</td>
<td>Oct., 1969</td>
<td>Superseded</td>
</tr>
<tr>
<td>Final Review</td>
<td>Feb., 1973</td>
<td></td>
</tr>
</tbody>
</table>
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-12978

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,

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 (M&S), 1934
   Target: (+0.1, +0.1)
   Sub. pt: (-0.9, +1.2)

2. CHAITE, 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 (M&S)), 1937
   Target: (+1.2, -2.6)
   Sub. pt. A: (-0.7, -1.6)
   Sub. pt. B: (+1.3, -3.0)

   1. MEAD 2 (M&S), 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)

8. SALEM, NEW ENGLAND POWER CO., SOUTH STACK, 1954
   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, 1943
    office identified (+1.8, -3.7)

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

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

24. CHELSEA QUIGLEY MEM. HOSPITAL W.T., 1955
    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, 1958
    office identified (+5.3, -1.0)
22. MEDFORD RADIO STATION WEZE NE TOWER, 1958
   office identified (+1.4, +3.0)

23. MEDFORD RADIO STATION WEII SW TOWER, 1958
   office identified (+1.2, +3.1)

STRIP #3

24. BOSTON STATE HOUSE, 1934
   office identified (+2.6, +5.5)

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

25. CHARLESTOWN BUNKER HILL MON., 1846
   office identified (+2.2, +0.1)

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

28. CHELSEA QUIGLEY MEM. HOSPITAL W.T., 1953
   office identified (+2.3, -2.0)

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

18. REVERE BEACH STACK, 1919
   office identified (-41, -22)

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

16. NAHANT COAST GUARD CUPOLA, 1919
   office identified (+3.6, +6.4)
13. SWAMPSCOTT HIGH SCHOOL, 1970
   office identified (±0.7, ±3.4)

12. SWAMPSCOTT LARGER STANDPIPE, 1974
   office identified (±0.7, ±1.8)

11. MARBLEHEAD, ABERT TOWER, 1717
   office identified (±0.5, ±4.2)

10. MARBLEHEAD LIGHTHOUSE, 1914
    office identified (±2.0, ±5.1)

  2. MANCHESTER CHURCH, PARK SPIRE, 1848
     target (±3.5, ±5.8)
     sub pt A (±4.1, ±5.2)

  1. HEAD 2 (MG5), 1934
     target (±3.8, ±0.9)
     sub pt (±6.2, ±1.2)

  5. STONEHAVEN, ROCKPORT TOWN (MG5), 1939
     target (±2.1, ±0.3)
     sub pt A (±1.3, ±1.6)
     sub pt B (±2.0, ±1.2)

  6. STRAIGHTS MOUTH LIGHTHOUSE, 1992
     office identified (±3.1, ±5.2)
29  Danvers  Cooke & Cooke  Co., Chimney, 1919

N46° 37' 34" (-6.41 6.07)
S38° 36' 30" (-0.01 -0.01)
S38° 36' 30" (-1.83 +1.74)

30  Beverly  United Shoe Mfg. Co., SYK, 1934

(-0.01 -0.01)

31  Beverly  Odd Fellows Cunola, 1934

(-1.29 +1.51)

32  Beverly  St. Mary's Church Spire, 1934

(-1.32 -1.09)

33  Beverly  1st Baptist Church, 1914

(+1.35 +1.10)

Tie Points

12601  (-0.28 -6.78)
12602  (-3.79 -3.20)
13601  (-2.56 -3.47)
14601  (-3.15 -1.53)
<table>
<thead>
<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 PR. = 304.8006 mm/l)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SALEM NAUMKEAG CHIMNEY, 1916</td>
<td>Vol. 1 P. 854</td>
<td>NA</td>
<td>42° 31' 00.507&quot;</td>
<td>70° 53' 11.116&quot;</td>
<td>15.6 (1835.8)</td>
</tr>
<tr>
<td>SALEM, HOSPITAL CHIMNEY, 1919</td>
<td>Vol. 1 P. 870</td>
<td>NA</td>
<td>42° 30' 42.585&quot;</td>
<td>70° 54' 27.863&quot;</td>
<td>1314.0 (537.4)</td>
</tr>
<tr>
<td>BEVERLY, FIRST BAPTIST CHURCH, 1914</td>
<td>Vol. 1 P. 33</td>
<td>NA</td>
<td>42° 32' 53.602&quot;</td>
<td>70° 52' 44.259&quot;</td>
<td>1653.9 (197.5)</td>
</tr>
<tr>
<td>DANVERS COKE AND KRAUSE CO. CHIMNEY, 1919</td>
<td>Vol. 1 P. 872</td>
<td>NA</td>
<td>42° 33' 10.389&quot;</td>
<td>70° 55' 35.184&quot;</td>
<td>320.6 (1530.8)</td>
</tr>
<tr>
<td>SOUTH SALEM NORMAL SCHOOL CHIMNEY 1919</td>
<td>Vol. 1 P. 870</td>
<td>NA</td>
<td>42° 30' 14.685&quot;</td>
<td>70° 53' 29.606&quot;</td>
<td>453.1 (1398.3)</td>
</tr>
<tr>
<td>SALEM COURTHOUSE CUPOLA, 1934</td>
<td>Vol. 1 P. 52</td>
<td>NA</td>
<td>42° 31' 23.774&quot;</td>
<td>70° 53' 49.163&quot;</td>
<td>733.6 (1117.8)</td>
</tr>
<tr>
<td>BEVERLY, POWER HOUSE, 1848</td>
<td>P. 824</td>
<td>NA</td>
<td>42° 33' 12.033&quot;</td>
<td>70° 52' 33.170&quot;</td>
<td>1122.2 (247.4)</td>
</tr>
<tr>
<td>BEVERLY, STUART'S FACTORY YELLOW CHIMNEY, 1919</td>
<td>GP P. 875</td>
<td>NA</td>
<td>42° 32' 24.94&quot;</td>
<td>70° 53' 22.43&quot;</td>
<td>371.3 (1480.1)</td>
</tr>
<tr>
<td>PEABODY, CATHOLIC CHURCH, SPIRE, 1919</td>
<td>GP P. 52</td>
<td>NA</td>
<td>42° 31' 32.960&quot;</td>
<td>70° 55' 47.589&quot;</td>
<td>756.7 (612.1)</td>
</tr>
<tr>
<td>SALEM GAS CO., CUPOLA, 1919</td>
<td>GP P. 871</td>
<td>NA</td>
<td>42° 32' 02.506&quot;</td>
<td>70° 53' 07.599&quot;</td>
<td>1017.0 (834.4)</td>
</tr>
<tr>
<td>SALEM, GAS CO., S.W. CHIMNEY, 1919</td>
<td>GP P. 871</td>
<td>NA</td>
<td>42° 32' 02.118&quot;</td>
<td>70° 53' 02.668&quot;</td>
<td>1086.2 (283.3)</td>
</tr>
<tr>
<td>SOUTH DANVERS, TALL SPIRE 1848</td>
<td>GP P. 827</td>
<td>NA</td>
<td>42° 31' 34.808&quot;</td>
<td>70° 55' 40.568&quot;</td>
<td>926.0 (443.5)</td>
</tr>
</tbody>
</table>

COMPUTED BY: CHB  
DATE: 9/30/69  
CHECKED BY: LLG JSP  
DATE: 10/10/66
<table>
<thead>
<tr>
<th>STATION</th>
<th>SOURCE OF INFORMATION (INDEX)</th>
<th>LATITUDE OR Y COORDINATE</th>
<th>LONGITUDE OR X COORDINATE</th>
<th>DISTANCE FROM GRID OR PROJECTION LINE IN METERS (1 FT. = 3048006 meter)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RAMSHORN BEACON 1914</td>
<td>Vol. 1 P. 509 1927 NA</td>
<td>42° 32' 09.091&quot;</td>
<td>70° 52' 32.33&quot;</td>
<td>280.5 (1570.9)</td>
</tr>
<tr>
<td>LOBSTER ROCKS BEACON, 1914</td>
<td>Vol. 1 P. 509 1927 NA</td>
<td>42° 32' 17.845&quot;</td>
<td>70° 52' 55.186&quot;</td>
<td>550.6 (1300.8)</td>
</tr>
<tr>
<td>DERBY WHARF LIGHTHOUSE, 1877</td>
<td>Vol. 1 P. 828 1927 NA</td>
<td>42° 30' 59.33&quot;</td>
<td>70° 53' 02.56&quot;</td>
<td>1830.7 (20.7)</td>
</tr>
<tr>
<td>SALEM, NEW ENGLAND POWER CO. SOUTH STALK, 1954</td>
<td>Vol. 1 P. 891 1927 NA</td>
<td>42° 31' 33.687&quot;</td>
<td>70° 52' 37.487&quot;</td>
<td>1039.4 (812.0)</td>
</tr>
<tr>
<td>SALEM, NEW ENGLAND POWER CO. NORTH STACK, 1954</td>
<td>Vol. 1 P. 891 1927 NA</td>
<td>42° 31' 34.340&quot;</td>
<td>70° 52' 37.103&quot;</td>
<td>1059.6 (791.8)</td>
</tr>
<tr>
<td>BEVERLY, UNITED SHOE MFG., CO. STACK, 1934</td>
<td>Vol. 1 P. 51 1927 NA</td>
<td>42° 33' 33.912&quot;</td>
<td>70° 53' 16.148&quot;</td>
<td>1046.4 (805.0)</td>
</tr>
<tr>
<td>DANVERS LAWRENCE STACK, 1934</td>
<td>Vol. 1 P. 51 1927 NA</td>
<td>42° 32' 29.603&quot;</td>
<td>70° 55' 39.979&quot;</td>
<td>913.4 (938.0)</td>
</tr>
<tr>
<td>PEABODY, LAWRENCE STACK, 1919</td>
<td>Vol. 1 P. 52 1927 NA</td>
<td>42° 31' 43.744&quot;</td>
<td>70° 55' 54.692&quot;</td>
<td>1249.9 (501.6)</td>
</tr>
<tr>
<td>SALEM, STL JAMES CATHOLIC CHURCH SPIRE, 1916</td>
<td>Vol. 1 P. 52 1927 NA</td>
<td>42° 31' 12.677&quot;</td>
<td>70° 54' 20.158&quot;</td>
<td>391.2 (1460.2)</td>
</tr>
<tr>
<td>BEVERLY, ST. MARKS CHURCH SPIRE, 1914</td>
<td>Vol. 1 P. 53 1927 NA</td>
<td>42° 32' 58.850&quot;</td>
<td>70° 52' 41.453&quot;</td>
<td>1815.9 (35.5)</td>
</tr>
<tr>
<td>BEVERLY, ODD FELLOWS CUPIOLA 1934</td>
<td>Vol. 1 P. 54 1927 NA</td>
<td>42° 32' 51.810&quot;</td>
<td>70° 52' 47.089&quot;</td>
<td>1598.6 (252.8)</td>
</tr>
<tr>
<td>SALEM, IMMACULATE CONCEPTION CATHOLIC CHURCH SPIRE, 1934</td>
<td>Vol. 1 P. 93 1927 NA</td>
<td>42° 31' 16.243&quot;</td>
<td>70° 53' 25.438&quot;</td>
<td>501.2 (1350.2)</td>
</tr>
</tbody>
</table>

COMPUTED BY          DATE      CHECKED BY        DATE
L.L. Graves         10/10/66      J.S. Pate A.L. Shands
COMPILATION REPORT

MAP MANUSCRIPT T-12978

PROJECT PH-6601

31. **DELINEATION:**

   West of Long. 70° 55':

       The Wild B-8 Plotter was used to compile all details in this area.

       Photography was adequate.

   East of Long. 70° 55':

   This area was compiled at 1:5000 scale (T-12978 and T-12975) and photographically reduced to 1:10,000 scale for application to this sheet. All details were transferred from the reductions by tracing.

32. **CONTROL:**


33. **SUPPLEMENTARY DATA:**

   None.

34. **CONTOURS AND DRAINAGE:**

   Contours are inapplicable.

   Drainage was compiled from office interpretation of the photographs.

35. **SHORELINE AND ALONGSHORE DETAILS:**

   West of Long. 70° 55', all details except the mean high water line compiled from office interpretation of photographs taken at
mean low water. The mean high water line was compiled from office interpretation of infrared photographs taken at mean high water.

East of Long, 70° 55', refer to reports for 1:5000 scale manuscripts T-12972 and T-12975.

36. **OFFSHORE DETAILS:**

None.

37. **LANDMARKS AND AIDS:**

Form 567 for non-floating aids and landmarks for charts have been submitted, dated October 3 and 4, 1968.

38. **CONTROL FOR FUTURE SURVEYS:**

None.

39. **JUNCTIONS:**

Satisfactory junctions have been made with T-12979 to the east and T-12982 to the south. There are no contemporary 1:10,000 scale surveys to the north or west.

40. **HORIZONTAL AND VERTICAL ACCURACY:**

No statement.

41. thru 45. **ADDITIONAL ITEMS:**

None.

46. **COMPARISON WITH EXISTING MAPS:**

A comparison has been made with U.S.G.S. quadrangle SALEM, MA; scale 1:24,000, dated 1956, reprinted 1959.
47. **COMPARISON WITH NAUTICAL CHARTS:**


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

None.

**ITEMS TO BE CARRIED FORWARD:**

None.

Submitted by:

Charles H. Bishop
Cartographer
October 9, 1969

Approved:

Albert C. Rauck, Jr.
Chief, Coastal Mapping Section, AMC
Sept. 24, 1973

GEOGRAPHIC NAMES

FINAL NAME SHEETS

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

T-12978

Bass River
Beverly
Beverly Harbor
Boston and Maine (RR)
Collins Cove
Crane River
Danvers
Danvers River
Danversport
Fosters Point
Green Hill
Lobster Rocks
Long Point
North River
North Salem
Palmer Cove
Palmer Point
Peters Point
Pickering Point
Porter River
Prospect Hill
Salem
Salem Harbor
Salem Neck
Salters Point
South River
South Salem
Tuck Point
Waters Rivers

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 doubtfull 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".
PHOTOGRAMMETRIC OFFICE REVIEW
T-P-12978

1. PROJECTION AND GRIDS  2. TITLE  3. MANUSCRIPT NUMBERS  4. MANUSCRIPT SIZE
CHB  CHB  CHB

5. CONTROL STATIONS
6. RECOVERABLE HORIZONTAL STATIONS OF LESS THAN THIRD-ORDER ACCURACY (Topographic stations)
7. PHOTO HYDRO STATIONS
CHB  X  X

8. BENCH MARKS  9. PLOTTING OF SEXTANT FIXES  10. PHOTOGRAMMETRIC PLOT REPORT  11. DETAIL POINTS
CHB  X  W.O. Bridge  CHB

ALONGSHORE AREAS (Nautical Chart Data)
12. SHORELINE  13. LOW-WATER LINE  14. ROCKS, SHOALS, ETC.  15. BRIDGES
CHB  CHB  CHB  CHB

16. AIDS TO NAVIGATION  17. LANDMARKS  18. OTHER ALONGSHORE PHYSICAL FEATURES  19. OTHER ALONGSHORE CULTURAL FEATURES
CHB  CHB  CHB  CHB

PHYSICAL FEATURES
20. WATER FEATURES  21. NATURAL GROUND COVER  22. PLANETARY CONTOURS
CHB  X  X

23. STEREOSCOPIC INSTRUMENT CONTOURS  24. CONTOURS IN GENERAL  25. SPOT ELEVATIONS  26. OTHER PHYSICAL FEATURES
X  X  X

CULTURAL FEATURES
27. ROADS  28. BUILDINGS  29. RAILROADS  30. OTHER CULTURAL FEATURES
CHB  CHB  CHB  CHB

BOUNDARIES
31. BOUNDARY LINES  32. PUBLIC LAND LINES
X  X

MISCELLANEOUS
33. GEOGRAPHIC NAMES  34. JUNCTIONS  35. LEGIBILITY OF THE MANUSCRIPT
CHB  CHB  CHB

36. DISCREPANCY OVERLAY  37. DESCRIPTIVE REPORT  38. FIELD INSPECTION PHOTOGRAPHS  39. FORMS
CHB  CHB  CHB

40. REVIEWER
Charles H. Bishop  10/10/69  Albert C. Rauck, Jr.

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  L.L. Graves & A.L. Shands
Reviewed:  C.H. Bishop  10/10/69  Albert C. Rauck, Jr.

43. REMARKS
Field Edit from:  Field Edit Ozalid - T012978 and ratio print
65 S 7215; Reductions of 1:5,000 map manuscripts T-12972 and T-12975.
FIELD EDIT REPORT

PH-6601
Boston to Plum Island
T-12959 T-12975 T-12976 T-12978 T-12980

GENERAL NOTES

This report is submitted for four T-sheets, field edited May and June 1966; one sheet T-12980 was field edited June 1967 and is being returned.

Most discrepancies on sheet T-12978 are referenced to sheet T-12975 because of duplication. A few in the northwest corner of sheet T-12978 are noted directly on the sheet or referenced to photo 65-S-7315.

All notations on T-sheet and Photographs are made in violet ink. The notations were made either directly on the discrepancy sheet or referenced to photos.

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. The rock and ledge heights were obtained by hand leveling from mean high-water or mean low-water lines, or by using hourly tide heights obtained from the ship Pierce.

All discrepancies on the field edit sheets have been verified directly on the sheets or referenced to a photograph.

Notations on photographs by sheet numbers are as follows.

T-12975 T-12976 T-12978 T-12959
65-S-7340 65-S-7324 65-S-7315 65-S-7263
7349 7325
7351 7350
7351 7352
7353

52 ADEQUACY OF COMPILATION

The compilation of MHWL and MLWL around ledge areas as a whole appeared to be good, several ledge areas were inspected at low water, these are noted on the discrepancy print and referenced to a photograph. Compilation of piers, streets, and buildings was found to be good.

54 RECOMMENDATIONS:

None

56 ROCKS

Very few rocks were verified directly on the field edit sheets, however areas of rocks in question and rocks recommended for charting are noted on the field edit sheet and referenced to
These are inked on the following photos.

T-12976    T-12975
65-S-7324   65-S-7340
7325        7351
7350
7351
7352
7353

NAUTICAL LANDMARKS AND FIXED AIDS

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

58 LANDMARK BUILDINGS AND BLUFFS

Three landmark buildings are recommended for deletion, one each on the following T-sheets, T-12975, T-12976, and T-12978. All landmark buildings recommended for charting are circled and labeled as such on the following photos.

65-S-7324, 7350, 7352

All bluffs were investigated off shore and bluffs recommended for charting are inked on the following photos.

65-S-7324 7350 7352

All Public Buildings are circled on the following photos,

65-S-7340 7349 7352

59 STREETS

All street additions and classifications for T-sheets T-12975 and T-12976 are noted on the field edit sheet and referenced to the photos.

Submitted by

E. W. Hartford

2 June 1968
Atlantic Marine Center Oct. 4 1968

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 B. L. Barge

Acting Director, AMC

<table>
<thead>
<tr>
<th>STATE</th>
<th>MASSACHUSETTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHARTING NAME</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>DANVERS</td>
<td>(Danvers, fellow Chimney, 1919) Destroyed</td>
</tr>
<tr>
<td>STACK</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<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>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>T-12978</td>
<td>5/24/68</td>
</tr>
</tbody>
</table>

This form shall be prepared in accordance with Hydrographic Manual, Publication 20.2, Sec. 1-35, 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.

* 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. L. Barge

P. A. Stark

Acting Director, AMC

<table>
<thead>
<tr>
<th>STATE</th>
<th>MASSACHUSETTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHARTING NAME</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>STACK</td>
<td>Red brick ht. = 53 (65) ft.</td>
</tr>
<tr>
<td>STACK</td>
<td>(Danvers Cooke &amp; Krause Co. ht.* Chimney, 1919) Brick, Yellow 105 (115) ft.</td>
</tr>
<tr>
<td>STACK</td>
<td>(Danvers Lawrence Stack, 1931) Concrete, black top, ht. = 210 (240) ft.</td>
</tr>
<tr>
<td>STACK</td>
<td>(Peabody Lawrence Stack, 1919) Concrete, ht. = 185 (215) ft.</td>
</tr>
</tbody>
</table>

NOTE: Landmarks and Aids east of longitude 70.55 and within the area covered by manuscript T-12978 are listed with 1:5,000 scale manuscripts T-12972 and T-12975.

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.
**NONELEAVING AID S OR LANDMARKS FOR CHARTS**

Atlantic Marine Center, November 16, 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.

<table>
<thead>
<tr>
<th>STATE</th>
<th>MASSACHUSETTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHARTING NAME</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>COLLINS COVE</td>
<td>Transm. Skeleton Steel Gray</td>
</tr>
<tr>
<td>TOWER</td>
<td>ht. = 117 (127)</td>
</tr>
<tr>
<td>TOWER</td>
<td>Transm. Skeleton Steel Gray</td>
</tr>
<tr>
<td>TOWER</td>
<td>ht. = 117 (127)</td>
</tr>
<tr>
<td>DUNDEE RIVER</td>
<td>Transm. Skeleton Steel Gray</td>
</tr>
<tr>
<td>TOWER</td>
<td>ht. = 90 (100)</td>
</tr>
<tr>
<td>SOUTH</td>
<td>Transm. Skeleton Steel Gray</td>
</tr>
<tr>
<td>TOWER</td>
<td>ht. = 90 (100)</td>
</tr>
<tr>
<td>TOWER</td>
<td>Transm. Skeleton Steel Gray</td>
</tr>
<tr>
<td>TOWER</td>
<td>ht. = 120 (130)</td>
</tr>
<tr>
<td>TOWER</td>
<td>Transm. Skeleton Steel Gray</td>
</tr>
<tr>
<td>TOWER</td>
<td>ht. = 117 (127)</td>
</tr>
<tr>
<td>TOWER</td>
<td>ht. = 117 (127)</td>
</tr>
<tr>
<td>NORTH</td>
<td>Transm. Skeleton Steel Gray</td>
</tr>
<tr>
<td>TOWER</td>
<td>ht. = 120 (180)</td>
</tr>
<tr>
<td>SOUTH</td>
<td>Transm. Skeleton Steel Gray</td>
</tr>
<tr>
<td>TOWER</td>
<td>ht. = 170 (180)</td>
</tr>
</tbody>
</table>

This form shall be prepared in accordance with Hydrographic Manual, Publication 20.2, Sec. 1-35, 2-39, 6-36, 7-18 to 22 inclusive, and Fig. 79. Positions of charted landmarks and noneleaving aids to navigation, if redetermined, shall be reported on this form. Revisions shall show both the old and new positions. The data should be continued for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.
# NONFLOATING AIDS OR LANDMARKS FOR CHARTS

**Atlantic Marine Center**

November 14, 1967

R. R. White

J. Bull, RADM, USCGSA
Director, NAV
Chief of Party

---

## MASSACHUSETTS

<table>
<thead>
<tr>
<th>CHARTING NAME</th>
<th>DESCRIPTION</th>
<th>SIGNAL NAME</th>
<th>LATITUDE</th>
<th>LATITUDE</th>
<th>LONGITUDE</th>
<th>LONGITUDE</th>
<th>DATED</th>
<th>METHOD OF LOCATION AND SURVEY NO.</th>
<th>DATE OF LOCATION</th>
<th>CHARTS AFFECTED</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BEVERLY</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STACK</td>
<td>Concrete ht. = 105 (115)</td>
<td></td>
<td>42 33</td>
<td>19.32</td>
<td>17.08</td>
<td>N.A.</td>
<td>Photo.</td>
<td>T-12972 10/5/67</td>
<td>x</td>
<td>240SC, 241SC</td>
</tr>
<tr>
<td>STACK</td>
<td>Red Brick Square</td>
<td></td>
<td>42 32</td>
<td>17.97</td>
<td>70 53</td>
<td>6.40</td>
<td>N.A.</td>
<td>Photo.</td>
<td>T-12972 10/5/67</td>
<td>x</td>
</tr>
<tr>
<td>SPIRE</td>
<td>Beverly St. Mary's Church Spire 1914 ht. = 140 (190)</td>
<td></td>
<td>42 32</td>
<td>58.850</td>
<td>70 53</td>
<td>41.453</td>
<td>N.A.</td>
<td>Triang.  Verifi.</td>
<td>T-12972 10/5/67</td>
<td>x</td>
</tr>
<tr>
<td>*</td>
<td>Beverly First Baptist Church (Beverly First Baptist Church Spire 1914) ht. = 155 (205)</td>
<td></td>
<td>42 32</td>
<td>53.662</td>
<td>70 52</td>
<td>44.259</td>
<td>N.A.</td>
<td>Triang.  Verifi.</td>
<td>T-12972 10/5/67</td>
<td>x</td>
</tr>
<tr>
<td><strong>SALEM</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STACK</td>
<td>Brick, Red Square ht. = 95 (105)</td>
<td></td>
<td>42 31</td>
<td>46.67</td>
<td>70 53</td>
<td>33.08</td>
<td>N.A.</td>
<td>Photo.</td>
<td>T-12972 9/21/67</td>
<td>x</td>
</tr>
<tr>
<td>CHURCH</td>
<td>Metal, Blue</td>
<td></td>
<td>42 31</td>
<td>32.89</td>
<td>70 53</td>
<td>7.14</td>
<td>N.A.</td>
<td>Photo.</td>
<td>T-12972 9/21/67</td>
<td>x</td>
</tr>
<tr>
<td>DOME</td>
<td>ht. = 70 (80)</td>
<td></td>
<td>42 31</td>
<td>101.5</td>
<td>70 53</td>
<td>163</td>
<td>N.A.</td>
<td>Photo.</td>
<td>T-12972 9/21/67</td>
<td>x</td>
</tr>
</tbody>
</table>

---

* See Form 567 NONFLOATING AIDS TO BE CHARTED

---

This form shall be prepared in accordance with Hydrographic Manual, Publication 20.2, Sec. 1-35, 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.
NONFLOATING AIDS OR LANDMARKS FOR CHARTS

Atlantic Marine Center, November 14, 1967

R. R. White

Director, ANC

Chief of Party

STATE

MASSACHUSETTS

<table>
<thead>
<tr>
<th>CHARTING NAME</th>
<th>DESCRIPTION</th>
<th>SIGNAL NAME</th>
<th>POSITION</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></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEASUREMENTS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></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, 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 reetermined, 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.

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY
# NonFloating Aids or Landmarks for Charts

**Atlantic Marine Center**

November 14, 1967

R. R. White

J. Pull, RADM, USESSA

Chief of Party

## Massachusetts

<table>
<thead>
<tr>
<th>Charting Name</th>
<th>Description</th>
<th>Signal Name</th>
<th>Position</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>
<td></td>
</tr>
<tr>
<td><strong>Main Channel</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>(Beverly First Baptist Church 1914)</em> Hospital Point Range</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rear Light.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Beverly Harbor</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lobster Rocks Daybeacon</td>
<td><em>(Lobster Rocks Beacon 1914)</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daybeacon</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rams Horn Channel</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rams Horn Rock Daybeacon</td>
<td><em>(Rams Horn Beacon 1914)</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daybeacon</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>See Form 567 Landmarks to be Charted</strong></td>
<td></td>
<td></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, 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 deleted from the charts indicated.

The positions given have been checked after listing by R. R. White.

<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>BEVERLY</td>
<td>(Beverly St. Alphonse Catholic Church Cupola 1919) Destroyed</td>
<td>42 32</td>
<td>47.211</td>
<td>56.995</td>
<td>N.A. Triang. Verifi.</td>
<td>9/20/67</td>
<td>x 240SC, 241SC</td>
<td></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. Triang. Verifi.</td>
<td>9/20/67</td>
<td>x 240SC, 241SC</td>
<td></td>
</tr>
<tr>
<td>CUPOLA</td>
<td>Top Taken Off</td>
<td>42 32</td>
<td>1767.6</td>
<td>891.5</td>
<td>1927 T-12972</td>
<td>9/20/67</td>
<td>x 1207</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 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.
# Non-Floating Aids for Charts

TO BE CHARTED
TO BE REMOVED

Atlantic Marine Center, Norfolk, Va. Nov. 19, 1968

I recommend that the following objects which have been inspected from seaward to determine their value as landmarks be charted on (delineated) the charts indicated.

The positions given have been checked after listing by Lawrence E. Graves
Howard S. Cole
Director, AMC
Chief of Party.

## Massachusetts

<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-Verified</th>
<th>Charts Affected</th>
</tr>
</thead>
<tbody>
<tr>
<td>SALEM HARBOUR</td>
<td>Slate, gold ball and cross atop Ht. = 150 (170) Ft.</td>
<td></td>
<td>12.213</td>
<td>601.2</td>
<td>70 53</td>
<td>25.148</td>
<td>NA</td>
<td>T-12975</td>
</tr>
<tr>
<td></td>
<td>(SALEM IMMACULATE CONCEPTION CATHOLIC CHURCH, SPIRE 1934)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPIRE</td>
<td>Slate, gold cross atop Ht. = 185 (205) Ft.</td>
<td></td>
<td>12.077</td>
<td>391.2</td>
<td>70 51</td>
<td>20.158</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(SALEM, ST. JAMES CATHOLIC CHURCH SPIRE 1916)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STANDPIPE</td>
<td>Steel Ht. = 96 (206) Ft.</td>
<td></td>
<td>12.30</td>
<td>55.74</td>
<td>70 51</td>
<td>54.01</td>
<td></td>
<td>Photo</td>
</tr>
<tr>
<td>CHURCH TOWER</td>
<td>Wood, dark color Ht. = 120 (150) Ft.</td>
<td></td>
<td>12.31</td>
<td>01.20</td>
<td>70 53</td>
<td>34.21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STACK</td>
<td>Brick, red Ht. = 155 (155) Ft.</td>
<td></td>
<td>12.50</td>
<td>00.57</td>
<td>70 53</td>
<td>11.116</td>
<td></td>
<td>Tri</td>
</tr>
<tr>
<td></td>
<td>(SALEM, NAUKKIAK CHIMNEY 1916)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STACK</td>
<td>Brick, red Ht. = 115 (155) Ft.</td>
<td></td>
<td>12.50</td>
<td>15.6</td>
<td>70 53</td>
<td>253.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(SALEM, HOSPITAL CHIMNEY 1919)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STANDPIPE</td>
<td>Steel, silver color Ht. = 100 (220) Ft.</td>
<td></td>
<td>12.30</td>
<td>12.25</td>
<td>70 51</td>
<td>37.005</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(SHAMPSOCT, LARGER STANDPIPE 1934)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHURCH TOWER</td>
<td>Wood Ht. = 90 (110) Ft.</td>
<td></td>
<td>12.31</td>
<td>23.76</td>
<td>70 53</td>
<td>36.71</td>
<td></td>
<td>Photo</td>
</tr>
</tbody>
</table>

This form shall be prepared in accordance with Hydrographic Manual, Publication 20.2, Sec. 1-35, 2-39, 6-36, 7-18 to 22 inclusive, and Fig. 79. Positions of charted landmarks and nonfloating aids to navigation, if reetermined, 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

USCG-DC 36499-P65
I recommend that the following objects which have not 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 Lawrence L. Graves and Howard S. Cole.

<table>
<thead>
<tr>
<th>STATE</th>
<th>MASSACHUSETTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHARTING NAME</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>SALEM HARBOR</td>
<td>Derby Wharf Light (DERBY WHARF LIGHTHOUSE 1877)</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This form shall be prepared in accordance with Hydrographic Manual, Publication 20.2, Sec. 1-55, 2-39, 3-36, 7-15 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.

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

The positions given have been checked after listing by Lawrence L. Graves and Howard S. Cole.

<table>
<thead>
<tr>
<th>STATE</th>
<th>MASSACHUSETTS</th>
<th>POSITION</th>
<th>METHOD OF LOCATION AND SURVEY No.</th>
<th>DATE OF LOCATION Verified</th>
<th>CHARTS AFFECTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHARTING NAME</td>
<td>DESCRIPTION</td>
<td>LATITUDES</td>
<td>LONGITUDES</td>
<td>LATITUDES</td>
<td>LONGITUDES</td>
</tr>
<tr>
<td>S. CHURCH TOWER</td>
<td>Destroyed by fire (SALEM, ST. JOSEPH CHURCH, SOUTH TOWER 1919)</td>
<td>42 31</td>
<td>70 53</td>
<td>35 581</td>
<td>NA</td>
</tr>
</tbody>
</table>

This form shall be prepared in accordance with Hydrographic Manual, Publication 20.2, Sec. 1-55, 2-19, 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 (have-not) 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 Charles H. Bishop

<table>
<thead>
<tr>
<th>STATE</th>
<th>MASSACHUSETTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHARTING NAME</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></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, 7-13 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.
REVIEW REPORT T-12978
SHORELINE
FEB., 1974

61. - 66. GENERAL STATEMENT & ETC.: See summary which is page six (6) of the Descriptive Report.

Since 95% of the navigable waters are on sheet T-12972, compiled at 1:5,000 scale, see report (included) of this sheet.

Reviewed by:

Bernard Kurs
Cartographer

Approved for forwarding:

Victor E. Serena
Chief, Photogrammetric Branch, AMC