

T-12974

Original

T-12974

<p>Form 504</p> <p>U. S. DEPARTMENT OF COMMERCE</p> <p>COAST AND GEODETIC SURVEY</p> <p>DESCRIPTIVE REPORT</p>
<p>Type of Survey <u>Shoreline (Photogrammetric)</u></p> <p>Field No. _____ Office No. <u>T-12974</u></p>
<p>LOCALITY</p> <p>State <u>Massachusetts</u></p> <p>General locality <u>Boston to Plum Island</u></p> <p>Locality <u>Great Misery Island</u></p>
<p><u>1966 -</u></p> <p>CHIEF OF PARTY</p> <p><u>J. Bull, RADM, Director, Atlantic Marine Center</u></p>
<p>LIBRARY & ARCHIVES</p> <p>DATE _____</p>

USCOMM-OC 5087

DESCRIPTIVE REPORT - DATA RECORD

T - 12974

PROJECT NO. (II):

Job PH-6601

FIELD OFFICE (II):

CHIEF OF PARTY

PHOTOGRAMMETRIC OFFICE (III):

Atlantic Marine Center

OFFICER-IN-CHARGE

J. Bull, RADM, USESSA, 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 1
Office - July 11, 1966 Supplement 1

METHOD OF COMPILATION (III):

Wild B-8 and graphic

MANUSCRIPT SCALE (III):

1:5,000

STEREOSCOPIC PLOTTING INSTRUMENT SCALE (III):

1:2,500 pantographed to 1:5,000

DATE RECEIVED IN WASHINGTON OFFICE (IV):

DATE REPORTED TO NAUTICAL CHART BRANCH (IV):

APPLIED TO CHART NO.

DATE:

DATE REGISTERED (IV):

SEPT. 1975

GEOGRAPHIC DATUM (III):

N.A. 1927

VERTICAL DATUM (III):

~~MEAN LOW WATER~~ **MTW** EXCEPT AS FOLLOWS:

Elevations shown as (25) refer to mean high water

Elevations shown as (5) refer to sounding datum

i.e., mean low water or mean lower low water

REFERENCE STATION (III):

GREAT MISERY 2 RM NO 1 1916 ✓

LAT.:

LONG.:

42° 32' 49.56" (1529.1m) 70° 47' 48.99" (1117.7m)

☒ ADJUSTED☐ UNADJUSTED

PLANE COORDINATES (IV):

STATE

ZONE

Mass.

Mainland

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

FIELD INSPECTION BY (II): None		DATE:
MEAN HIGH WATER LOCATION (III) (STATE DATE AND METHOD OF LOCATION): August 1965; Air photo compilation, graphic.		
PROJECTION AND GRIDS RULED BY (IV): A. E. Roundtree		DATE 5-31-66
PROJECTION AND GRIDS CHECKED BY (IV): R. Glaser		DATE 6-3-66
CONTROL PLOTTED BY (III): L. Neterer		DATE 9-26-66
CONTROL CHECKED BY (III): C. Blood		DATE 9-26-66
RADIAL PLOT OR STEREOSCOPIC CONTROL EXTENSION BY (III): H. P. Eichert		DATE 11-1-66
STEREOSCOPIC INSTRUMENT COMPILATION (III):	PLANIMETRY J. Place	DATE 12-22-66
	CONTOURS Inapplicable	DATE 1-17-67
MANUSCRIPT DELINEATED BY (III):		DATE
SCRIBING BY (III):		DATE
PHOTOGRAMMETRIC OFFICE REVIEW BY (III): C. H. Bishop		DATE 1-20-67
REMARKS:		

DESCRIPTIVE REPORT - DATA RECORD

CAMERA (KIND OR SOURCE) (III):

"S" Camera

PHOTOGRAPHS (III)

NUMBER	DATE	TIME	SCALE	STAGE OF TIDE
65 S 7172	Aug. 25, 1965	1005 EST	1:15,000	* 8.6 ft. above MLW
65 S 7178 and 7179	"	1011 "	"	* 8.5 "
65 S 7201 thru 7203	"	1019 "	"	* 8.4 "
65 S 7307 thru 7309	Aug. 31, 1965	0838 "	"	*-0.5 ft. below MLW
65 S 7334	"	0857 "	"	*-0.2 "
65 S 7356 thru 7358	"	0905 "	"	*-0.1 "

TIDE (III)

	RATIO OF RANGES	MEAN RANGE	SPRING RANGE
REFERENCE STATION: Boston (Predicted)		9.5	11.0
SUBORDINATE STATION: Manchester (Predicted)		8.8	10.2
SUBORDINATE STATION:			

WASHINGTON OFFICE REVIEW BY (IV): Bernard Kurs AMC

DATE: Jan., 1974

PROOF EDIT BY (IV):

DATE:

NUMBER OF TRIANGULATION STATIONS SEARCHED FOR (II):

RECOVERED:

IDENTIFIED:

NUMBER OF BM(S) SEARCHED FOR (II):

RECOVERED:

IDENTIFIED

NUMBER OF RECOVERABLE PHOTO STATIONS ESTABLISHED (III):

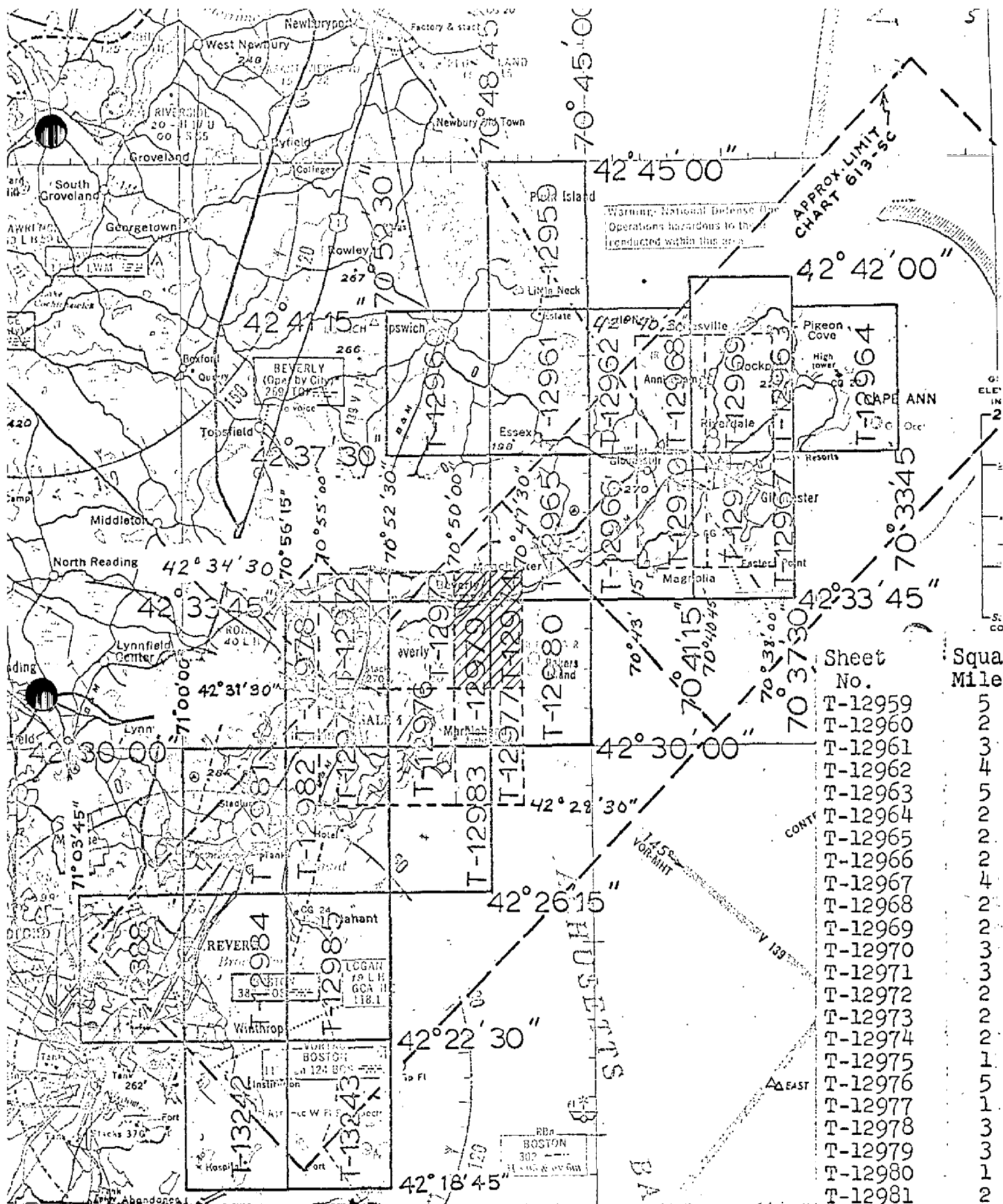
NUMBER OF TEMPORARY PHOTO HYDRO STATIONS ESTABLISHED (III):

REMARKS:

*
The stage of tide at time of photography was determined by readings on a staff at Gloucester Harbor (Ten Pound Island) at that time. See Instructions - OFFICE - dated April 28, 1966.

T-12974

COMPILATION RECORD	COMPLETION DATE	REMARKS
Compilation complete pending field edit	January 1967	Superseded
Field Edit Applied	October 1967	Superseded
Final Review	January, 1974	



Sheet
No.

T-12959
T-12960
T-12961
T-12962
T-12963
T-12964
T-12965
T-12966
T-12967
T-12968
T-12969
T-12970
T-12971
T-12972
T-12973
T-12974
T-12975
T-12976
T-12977
T-12978
T-12979
T-12980
T-12981
T-12982
T-12983
T-12984
T-12985
T-12388
T-13242
T-13243

Squa
Mile

5
2
3
4
5
2
2
2
4
2
2
3
3
2
2
2
1
5
1
3
3
1
2
3
2
3
3
2

TOTAL 79

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 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-12974
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

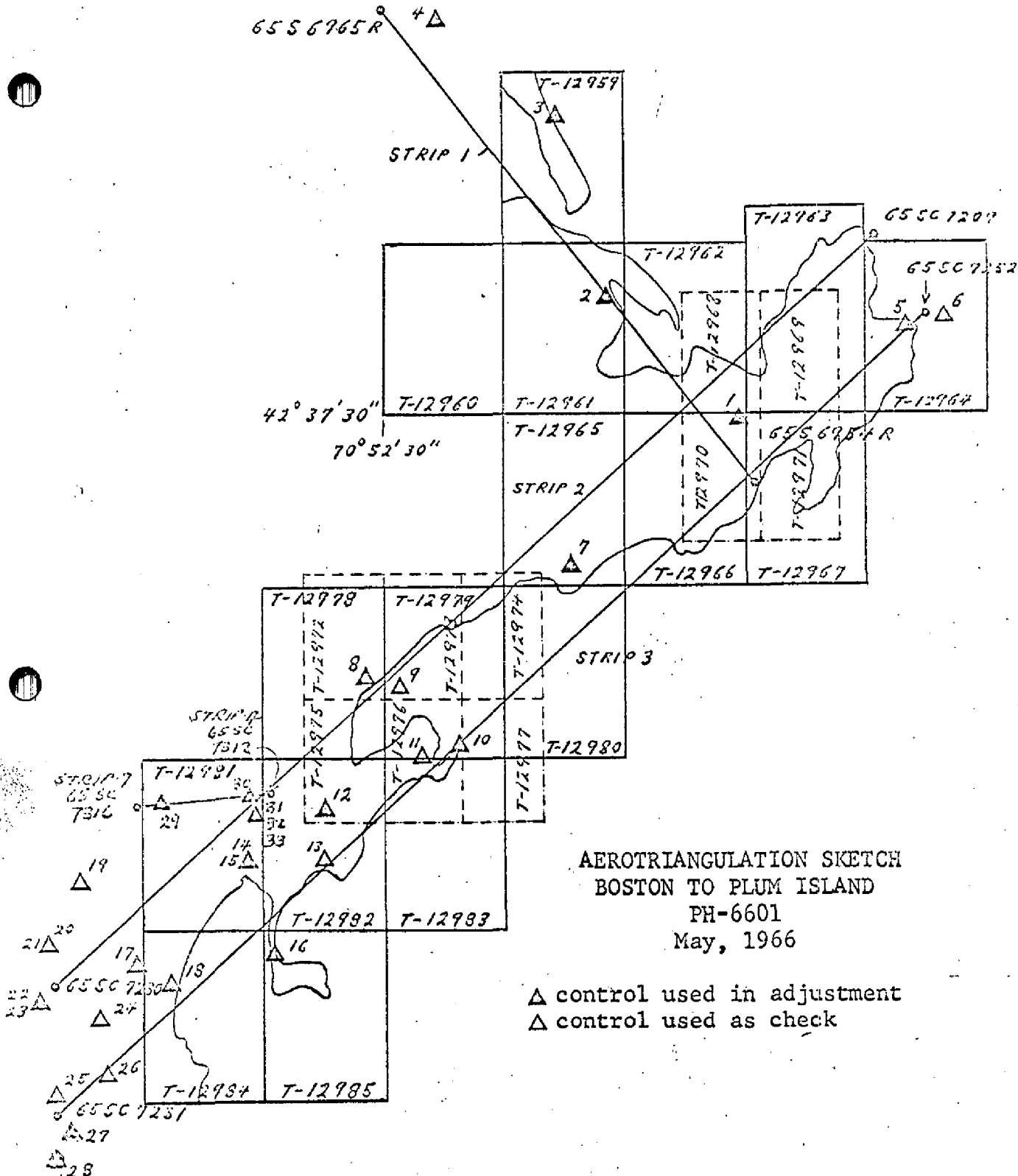
Vertical control points needed ^{as} ~~and~~ control for strip adjustments were taken from USGS quads.

25. Photography

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

Respectfully submitted,


Henry P. Eichert



Fit to control
(feet)

STRIP #1

1. MEAD 2 (MGS), 1934

target (+0.1, +0.1)

sub. pt. (-0.9, +1.7)

2. CHOATE, 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)), 1939

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 $(-7.1, +3.1)$

~~sub pt. B~~

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., 1958

office identified $(-1.5, +2.2)$

20 MEDFORD RADIO STATION WEEI-FM TOWER, 1958

~~and~~ office identified $(+2.1, -1.0)$

21 MEDFORD TV STATION WNAC TOWER, 1958

office identified $(+5.3, -1.0)$

17
22 MEDFORD RADIO STATION WEST NE TOWER, 1958

office identified (+1.4, +3.0)

23 MEDFORD RADIO STATION WEST SW TOWER, 1958

office identified (+1.7, +3.1)

STRIP #3

28 BOSTON STATE HOUSE, 1934

office identified (+2.6, +5.5)

27 BOSTON CUSTOM HOUSE TOWER, 1916

office identified (+3.7, +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)

24 CHESLEA QUIGLEY MEM. HOSPITAL W.T., 1953

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 (-4.1, -2.2)

14 HIGH ROCK #2

sub ~~pt.~~ pt. B (+2.9, +3.9)

16 NAHANT 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, ABBOT TOWER, 1919

office identified $(-0.6, +4.4)$

10 MARBLEHEAD LIGHTHOUSE, 1914

office identified $(+2.0, +5.1)$

7 MANCHESTER CHURCH DARK SPIRE, 1848

target $(-3.5, -5.8)$

sub pt A $(-4.1, -5.2)$

1 HEAD 2 (MGS), 1934

target $(+3.8, -0.7)$

sub. pt. $(+6.2, -1.2)$

5 STONEHAVEN (ROCKPORT TOWN (MGS)), 1939

target $(-2.1, +0.3)$

sub. pt A $(-1.3, +1.6)$

sub pt B $(-2.0, +1.2)$

6 STRAITS MOUTH LIGHTHOUSE, 1902

office identified $(-3.1, -5.2)$

STRIP # 4

29 DANVERS, COOKE & ^{KRAUSE}~~COOKE~~ CO. CHIMNEY, 1919

HOME STA (-0.78 +0.79)

SS "A" (-0.01 -0.01)

SS "B" (-1.83 +1.74)

30 BEVERLY, UNITED SHOE MFG. CO. STK., 1934

(-0.01 -0.01)

31 BEVERLY, ODD FELLOWS' CUPOLA, 1934

(-1.29 +1.55)

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)

COMPILATION REPORT
T-12974
Project PH-6601

31. DELINEATION:

The mean high water line and some roads were compiled graphically from infrared photographs taken at mean high water. All other features were compiled with the Wild B-8 from color photographs taken at mean low water.

32. CONTROL:

See Photogrammetric Plot Report. BOWDITCH LEDGE BEACON 1848 did not hold during compilation. The hydrographer has been asked to verify this position.

33. SUPPLEMENTAL DATA:

None

34. CONTOURS AND DRAINAGE:

Contours are inapplicable.

Drainage was delineated from office interpretation of the photographs.

35. SHORELINE AND ALONGSHORE DETAILS:

See Paragraph 31. The mean low water line, shallow and shoal limits were delineated from office interpretation of the photographs. Rock elevations were determined with the Wild B-8 and are to be verified by the hydrographer.

36. OFFSHORE DETAILS:

No statement.

37. LANDMARKS AND AIDS:

There are no Landmarks. Form 567 for Aids have been submitted to the Washington Office under date October 27, 1967.

38. CONTROL FOR FUTURE SURVEYS:

None

39. JUNCTIONS:

Satisfactory junctions have been made with T-12973 (1:5,000 scale) to the West, T-12977 (1:5,000 scale) to the south, T-12980 (1:5,000 scale) to the East, and T-12965 (1:10,000 scale) to the North.

40. HORIZONTAL AND VERTICAL ACCURACY:

No statement.

46. COMPARISON WITH EXISTING MAPS:

Comparison has been made with USGS Quadrangle MARBLEHEAD NORTH, MASS., Scale 1:24,000, dated 1956.

47. COMPARISON WITH NAUTICAL CHARTS:

Comparison has been made with CHART 240, scale 1:25,000, 8th edition, revised February 8, 1965 and CHART 241, scale 1:10,000, 3rd edition, dated September 30, 1963, also CHART 1207, scale 1:80,000, 5th edition, dated May 14, 1962, revised May 18, 1964.

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY:

None

ITEMS TO BE CARRIED FORWARD:

None

Submitted by:

Johnnie S. Place
Cartographer

Approved:

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

Sept. 24, 1973

GEOGRAPHIC NAMES

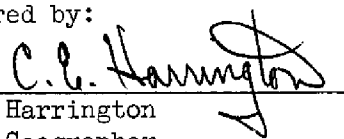
FINAL NAME SHEETS

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

T-12974

Allen Head
Beverly Farms
Boston and Maine (RR)
Bowditch Ledge
Chubb Creek
Chubb Island
Coney Ledge
Eagle Island
Great Misery Island
Hardy Rocks
Little Misery Island
North Gooseberry Island
Plum Cove
Pope Head
Salem Channel
Salem Sound
Sauli Rock
Smith Point
West Beach

Prepared by:


C. E. Harrington
Staff Geographer

T - 12974

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".

PHOTOGRAMMETRIC OFFICE REVIEW

12974

1. PROJECTION AND GRIDS CHB	2. TITLE CHB	3. MANUSCRIPT NUMBERS CHB	4. MANUSCRIPT SIZE
CONTROL STATIONS			
5. HORIZONTAL CONTROL STATIONS OF THIRD-ORDER OR HIGHER ACCURACY	6. RECOVERABLE HORIZONTAL STATIONS OF LESS THAN THIRD-ORDER ACCURACY (Topographic stations) X		7. PHOTO HYDRO STATIONS X
8. BENCH MARKS X	9. PLOTTING OF SEXTANT FIXES X	10. PHOTOGRAMMETRIC PLOT REPORT Bridge - W.O.	11. DETAIL POINTS X
ALONGSHORE AREAS (Nautical Chart Data)			
12. SHORELINE CHB	13. LOW-WATER LINE CHB	14. ROCKS, SHOALS, ETC. CHB	15. BRIDGES X"
16. AIDS TO NAVIGATION CHB	17. LANDMARKS NONE	18. OTHER ALONGSHORE PHYSICAL FEATURES CHB	19. OTHER ALONGSHORE CULTURAL FEATURES CHB
PHYSICAL FEATURES			
20. WATER FEATURES CHB	21. NATURAL GROUND COVER X		22. PLANETABLE CONTOURS X
23. STEREOSCOPIC INSTRUMENT CONTOURS X	24. CONTOURS IN GENERAL X	25. SPOT ELEVATIONS X	26. OTHER PHYSICAL FEATURES X
CULTURAL FEATURES			
27. ROADS CHB	28. BUILDINGS CHB	29. RAILROADS CHB	30. OTHER CULTURAL FEATURES CHB
BOUNDARIES			
31. BOUNDARY LINES X		32. PUBLIC LAND LINES X	
MISCELLANEOUS			
33. GEOGRAPHIC NAMES CHB	34. JUNCTIONS CHB CHB		35. LEGIBILITY OF THE MANUSCRIPT CHB
36. DISCREPANCY OVERLAY	37. DESCRIPTIVE REPORT CHB RES	38. FIELD INSPECTION PHOTOGRAPHS X	39. FORMS CHB
40. REVIEWER CHB <i>Charles H. Bishop</i>		SUPERVISOR, REVIEW SECTION OR UNIT ACR <i>Albert C. Rauck, Jr.</i>	
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 <i>R. E. Smith</i> R. E. Smith		SUPERVISOR <i>Albert C. Rauck, Jr.</i> A. C. Rauck, Jr.	
43. REMARKS Field edit applied from Field Edit Ozalid, Field Photos. Nos. 65-S-7335, 65-S-7354, 65-S-7356, 65-S-7357, 65-S-7358			

Field Edit Report
Job- PH- 6601
Boston to Plum Island
T- I2973 T- I2974

General Notes

The area was field-edited during the period of 16 May through 9 of June 1967. Corrections and additions have been inked on the photographs in black except, Phot pts, nautical aids, and MEWL measurements and notes, which are in red and referenced on the discrepancy print in blue.

Rock and ledge areas were investigated at or near low water. The compilation of ledges, rock hts and location of these two features was found to be very good. Rocks verified and new ones are inked on the Photos.

All landmarks and fixed aids were inspected and are submitted on form 567 in accordance with recent field instructions.

There are no Naut landmarks recommended for Sheets T-I2973 and T-I2974. One Beacon is recommended for charts, this beacon is just northwest of Chubb Island. It was identified on Photograph 65-s-7358.

All bluffs were investigated offshore and bluffs recommended for charts are noted on the discrepancy print and referenced to photographs.

Landmark buildings were inspected from offshore and ones recommended for charting are circled on the discrepancy print and referenced to photographs.

Compilation of roads was found to be very good. Two roads recommended for charting are noted on the discrepancy print and referenced to photographs.

All piers in question were investigated and noted on the discrepancy print.

Public buildings are shown on Photos 65-s-7334, 7335, and 7337.

One submerged wreck was located near Little Misery Island and shown on photograph 65-S-7356. The submerged wreck in question near the eastern end of West Beach was not found. This area was thoroughly searched at mean low water.

All marine railways in question are noted on the discrepancy print and referenced to the photograph. There were no boat ramps found in the area of these two T- sheets.

22

One pipeline in question was investigated and noted on the discrepancy print and referenced to photograph.

A diagram of Salem Harbor was obtained showing the location of this pipeline. Your attention is brought to the outlet area of this pipe, this is not a shoal but the sewerage from this pipeline.

The mean high water line was investigated at several areas other than ones in question, and found to be compiled quite adequate.

Field Edit notations are inked on the following photographs:

65-^S7334, 7335, 7337, 7338, 7354, 7356, 7357, and 7358

Submitted by,
E.W. Hartford
E.W.hartford

19 June 1967

cc: CofP 62, CFE/ Rasure

23

Field Edit Report
Job- PH- 660I
Boston to Plum Island
T- 12973 T- 12974

General Notes

The area was field-edited during the period of 16 May through 9 of June 1967. Corrections and additions have been inked on the photographs in black except, Phot pts, nautical aids, and MHWL measurements and notes, which are in red and referenced on the discrepancy print in blue.

Rock and ledge areas were investigated at or near low water. The compilation of ledges, rock hts and location of these two features was found to be very good. Rocks verified and new ones are inked on the Photos.

All landmarks and fixed aids were inspected and are submitted on form 567 in accordance with recent field instructions.

There are no Naut landmarks recommended for Sheets T-12973 and T-12974. One Beacon is recommended for charts, this beacon is just northwest of Chubb Island. It was identified on Photograph 65-s-7358.

All bluffs were investigated offshore and bluffs recommended for charts are noted on the discrepancy print and referenced to photographs.

Landmark buildings were inspected from offshore and ones recommended for charting are circled on the discrepancy print and referenced to photographs.

Compilation of roads was found to be very good. Two roads recommended for charting are noted on the discrepancy print and referenced to photographs.

All piers in question were investigated and noted on the discrepancy print.

Public buildings are shown on Photos 65-s-7334, 7335, and 7337.

One submerged wreck was located near Little Misery Island and shown on photograph 65-S-7356. The submerged wreck in question near the eastern end of West Beach was not found. This area was thoroughly searched at mean low water.

All marine railways in question are noted on the discrepancy print and referenced to the photograph. There were no boat ramps found in the area of these two T- sheets.

One pipeline in question was investigated and noted on the discrepancy print and referenced to photograph.

A diagram of Salem Harbor was obtained showing the location of this pipeline. Your attention is brought to the outlet area of this pipe, this is not a shoal but the sewerage from this pipeline.

The mean high water line was investigated at several areas other than ones in question, and found to be compiled quite adequate.

Field Edit notations are inked on the following photographs:

65-7334, 7335, 7337, 7338, 7354, 7356, 7357, and 7358

Submitted by,
E.W. Hartford
E.W. hartford

19 June 1967

cc: CofP 62, CFE/ Rasure

REVIEW REPORT T-12974

SHORELINE

January, 1974

61. GENERAL STATEMENT:

See summary which is page 6 of the Descriptive Report.

62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS:

A visual comparison was made with Registered Survey number 3765, dated 1919, at 1:10,000 scale. There was only fair general agreement. The date difference preclude any other type of comparison or agreement.

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 Marblehead North, MASS., 1956 at 1:24,000 scale. There is good general agreement between the two surveys.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS:

Direct comparison was made with Boat Sheets H-9046 and H-9095, both dated 1968 and at 1:5,000 scale. There is very good agreement between both surveys.

65. COMPARISON WITH NAUTICAL CHARTS:

A visual comparison was made with chart 240, May 19, 1973 at 1:25,000 scale. There is good general agreement.

66. ADEQUACY OF RESULTS AND FUTURE SURVEYS:

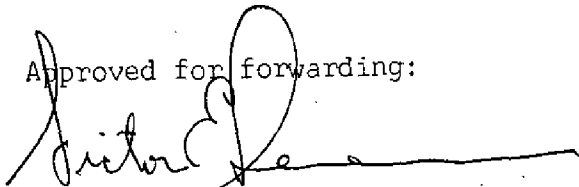
This survey complies with project instructions and meets the National Standards of Map Accuracy.

Reviewed by:



Bernard Kurs
Cartographer

Approved for forwarding:



Victor E. Serena
Chief, Photogrammetric Branch, AMC

Approved:

Chief, Photogrammetric Branch *for* *Randel C. Youngblood*
Chief, Coastal Mapping Division