

T-12388

T-12388

FORM C&GS-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-12388
LOCALITY	
State	Massachusetts
General locality	Boston to Plum Island
Locality	Chelsea
1966-70	
CHIEF OF PARTY	
Alfred C. Holmes, Director, AMC	
LIBRARY & ARCHIVES	
DATE	

DESCRIPTIVE REPORT - DATA RECORD

T -12388

OBJECT NO. (II):

PH-6601

FIELD OFFICE (III):

None

CHIEF OF PARTY

PHOTOGRAMMETRIC OFFICE (III):

Atlantic Marine Center, Norfolk, VA

OFFICER-IN-CHARGE

Alfred C. Holmes, Director, AMC

INSTRUCTIONS DATED (II) (III):

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

METHOD OF COMPILATION (III):

Wild B-8

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

GEOGRAPHIC DATUM (III):

NA 1927

VERTICAL DATUM (III): MHW

~~MEAN SEA LEVEL~~ 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):

Powderhorn 5 1957

LAT.:

42° 24' 03.327

LONG.:

71° 01' 48.168

☒ ADJUSTED☐ UNADJUSTED

PLANE COORDINATES (IV):

STATE

ZONE

Y =

X =

MASS

Mainland

MAN 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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FIELD INSPECTION BY (II): None		DATE:
MEAN HIGH WATER LOCATION (III) (STATE DATE AND METHOD OF LOCATION): Air Photo Compilation Date of Photography: August 31, 1965 and August 24, 1965		
PROJECTION AND GRIDS RULED BY (IV): L.E. Van Scoy		DATE 9/12/67
PROJECTION AND GRIDS CHECKED BY (IV): R. Glaser		DATE 9/13/67
CONTROL PLOTTED BY (III): L.O. Neterer, Jr.		DATE 10/4/67
CONTROL CHECKED BY (III): L.L. Graves		DATE 10/5/67
RADIAL PLOT OR STEREOSCOPIC CONTROL EXTENSION BY (III): Henry P. Eichert		DATE 11/1/66
STEREOSCOPIC INSTRUMENT COMPILATION (III): Wild B-8	PLANIMETRY L. O. Neterer, Jr.	DATE 10/8/67
	CONTOURS Not Applicable	DATE
MANUSCRIPT DELINEATED BY (III): L.L. Graves		DATE Oct. 1967
SCRIBING BY (III): L. B. Foltz		DATE 12/72
PHOTOGRAMMETRIC OFFICE REVIEW BY (III): Compilation R.E. Smith		DATE Nov. 1967
REMARKS:		

DESCRIPTIVE REPORT - DATA RECORD

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CAMERA (KIND OR SOURCE) (III):

Wild RC-8 "S"

PHOTOGRAPHS (III)

NUMBER	DATE	TIME	SCALE	STAGE OF TIDE
*65S 6931 R	8/24/65	08:45	1:30,000	9.2 above MLW
*65S (c) 7233	8/31/65	07:39	1:30,000	0.2 below MLW
65S (c) 7228	8/31/65	07:36	1:30,000	0.2 below MLW
65S 6924 R	8/24/65	08:40	1:30,000	8.8 above MLW

TIDE (III)

	RATIO OF RANGES	MEAN RANGE	SPRING RANGE
REFERENCE STATION: Boston		9.5	11.0
COORDINATE STATION: Chelsea St. Bridge; Chelsea River		9.6	11.1
SUBORDINATE STATION: Lynn Harbor		9.2	10.7

WASHINGTON OFFICE REVIEW BY (IV):

Bernard Kurs, AMC

DATE:

Nov. 1973

PROOF EDIT BY (IV):

DATE:

NUMBER OF TRIANGULATION STATIONS SEARCHED FOR (III):

9

RECOVERED:

9

IDENTIFIED:

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

RECOVERED:

IDENTIFIED

NUMBER OF RECOVERABLE PHOTO STATIONS ESTABLISHED (III):

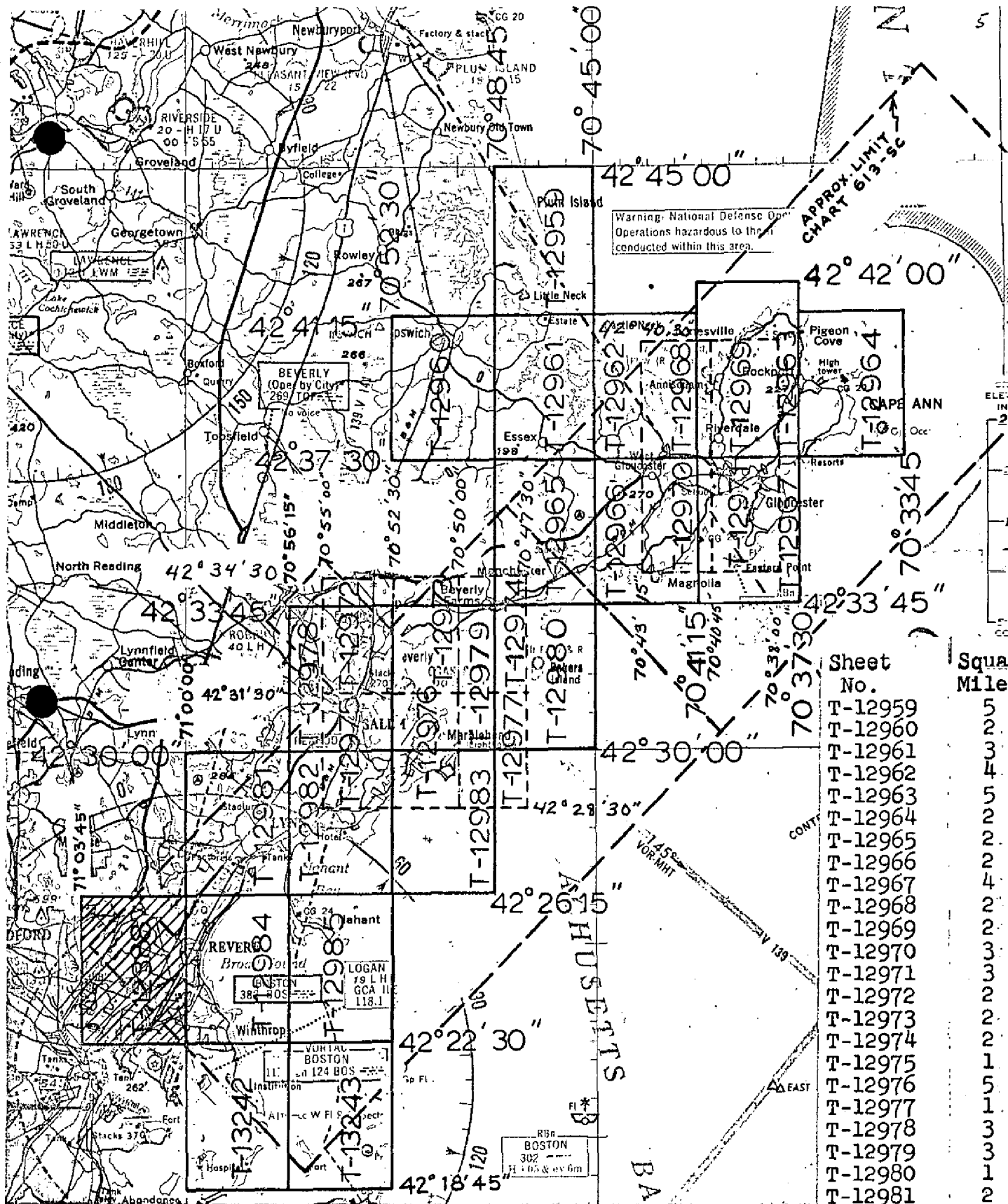
NUMBER OF TEMPORARY PHOTO HYDRO STATIONS ESTABLISHED (III):

REMARKS:

Photographs 65S 6931 R and 65S 7233; stage of tide are based on tide staff data recorded on the respective dates of photography listed above.

T-12388

COMPILATION RECORD	COMPLETION DATE	REMARKS
Compilation Complete Pending Field Edit	Nov. 1967	Superseded
Field Edit Applied Compilation Complete	July 1972	Superseded
Final Review	Nov. 1973	



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

Sheet No.	Squa Mile
T-12959	5
T-12960	2
T-12961	3
T-12962	4
T-12963	5
T-12964	2
T-12965	2
T-12966	2
T-12967	4
T-12968	2
T-12969	2
T-12970	3
T-12971	3
T-12972	2
T-12973	2
T-12974	2
T-12975	1
T-12976	5
T-12977	1
T-12978	3
T-12979	3
T-12980	1
T-12981	2
T-12982	3
T-12983	2
T-12984	3
T-12985	2
T-12388	3
T-13242	3
T-13243	2
TOTAL	79

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-12388

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

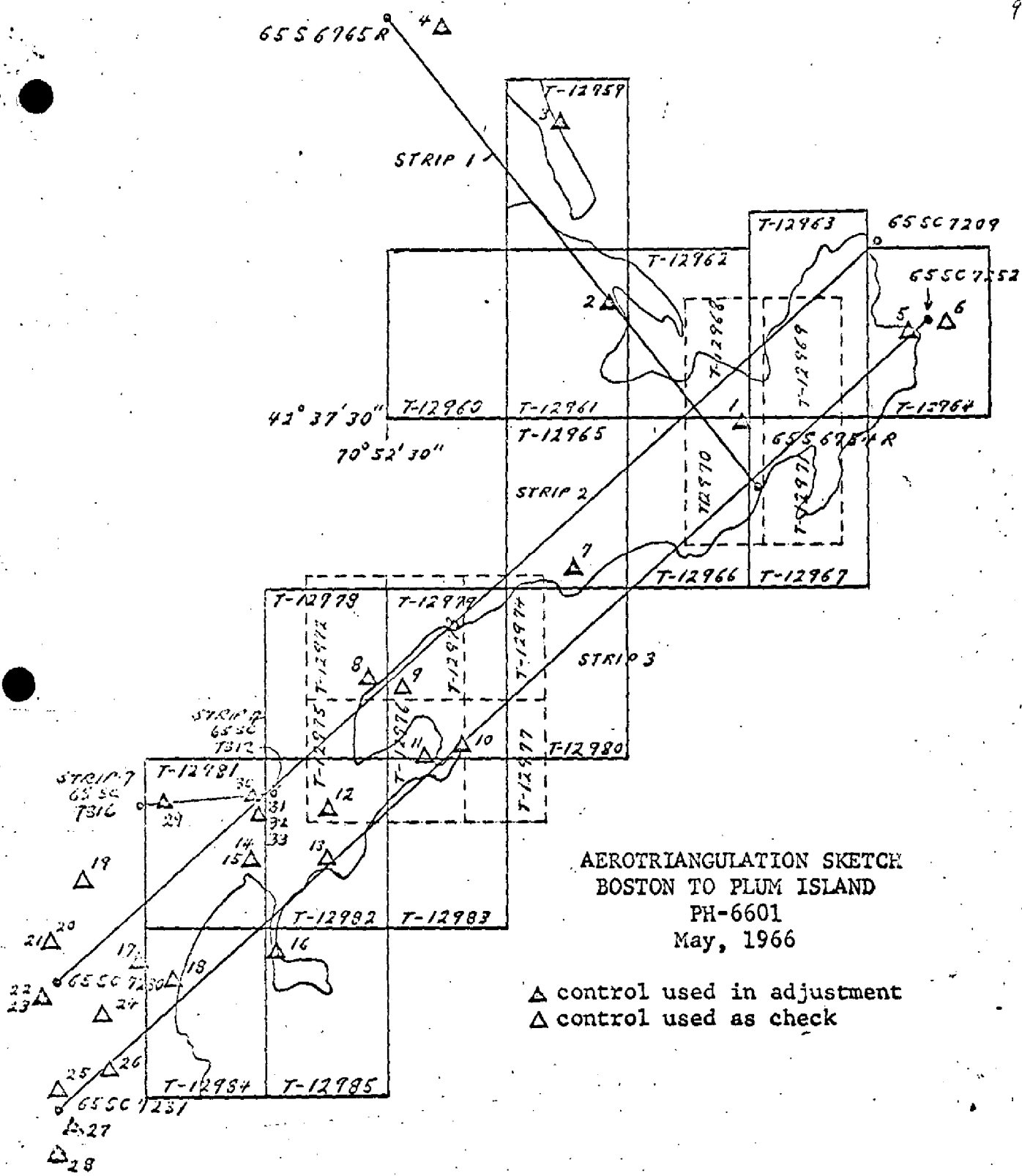
Vertical control points needed ^{as} ~~and~~ control for strip adjustments were taken from USGS quads.

25. Photography

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

Respectfully submitted,


Henry P. Eichert



AEROTRIANGULATION SKETCH
 BOSTON TO PLUM ISLAND
 PH-6601
 May, 1966

△ control used in adjustment
 △ control used as check

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

~~sub. pt. A~~ office identified $(+2.1, -1.0)$

21 MEDFORD TV STATION WNAC TOWER, 1958

office identified $(+5.3, -1.0)$

12
22 MEDFORD RADIO STATION WEEI NE TOWER, 1958

office identified (+1.4, +3.0)

23 MEDFORD RADIO STATION WEEI SW TOWER, 1958

office identified (+1.7, +3.1)

STRIP #3

23 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., 1958

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 GUPOLA, 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 PARK SPIRE, 1848

target $(-3.5, -5.8)$

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

1 MEAD 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 # 9

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, OOD FELLOWS CUPOLA, 1934

(-1.29 +1.55)

32 BEVERLY, ST. MARYS 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)

DESCRIPTIVE REPORT CONTROL RECORD

MAP T- 12388

PROJECT NO.

PH-6601

SCALE OF MAP.

1:10,000

SCALE FACTOR

[illegible]

COMPILATION REPORT

T-12388

31. DELINEATION

The B-8 was used to delineate the planimetry and alongshore areas. The shoreline was drawn by graphic method.

Photography was adequate.

32. CONTROL

See photogrammetric plot report.

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

The shoreline was delineated from office interpretation of photographs taken at Mean High Water. Photographs taken at Mean Low Water was used to delineate alongshore detail.

36. OFFSHORE DETAIL

No statement.

37. LANDMARKS AND AIDS

Form 567 for landmarks was forwarded to the Rockville, MD Office on March 13, 1973.

38. CONTROL FOR FUTURE SURVEYS

None

39. JUNCTIONS

A satisfactory junction was made with T-12984 to the east. There is no contemporary to the south, west, or north.

40. HORIZONTAL AND VERTICAL ACCURACY

No statement.

46. COMPARISON WITH EXISTING MAPS

A comparison has been made with USGS Quadrangle BOSTON NORTH, MA., scale 1:24,000 dated 1956.

47. COMPARISON WITH NAUTICAL CHARTS

A comparison was made with Chart 240, scale 1:25,000, 8th Edition Aug. 15, 1960 revised Feb. 8, 1965 and Chart 246 scale 1:25,000, 30th Edition Feb. 28, 1966 and Chart 248-SC scale 1:10,000, 5th Edition, corr. thru Feb. 4, 1967.

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY

None

ITEMS TO BE CARRIED FORWARD

None

L. L. Graves for
L. L. Graves
Cartographic Technician
October, 1967

Approved:

Albert C. Rauck, Jr.
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-12388

Boston and Maine (RR)
Boston Harbor
Chelsea ← Brown Circle
Chelsea River
Diamond Creek
Linden
Logan International Airport
MBTA
Mill Creek
Mill Hill
Orient Heights
Pines River
Revere
Sales Creek
Youngs Hill

Prepared by: C. E. Harrington
C. E. Harrington
Staff Geographer

T - 12388

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

T-12388

1. PROJECTION AND GRIDS RES	2. TITLE RES	3. MANUSCRIPT NUMBERS RES	4. MANUSCRIPT SIZE RES
CONTROL STATIONS			
5. HORIZONTAL CONTROL STATIONS OF THIRD-ORDER OR HIGHER ACCURACY RES	6. RECOVERABLE HORIZONTAL STATIONS OF LESS THAN THIRD-ORDER ACCURACY (Topographic stations) XX		7. PHOTO HYDRO STATIONS XX
8. BENCH MARKS	9. PLOTTING OF SEXTANT FIXES	10. PHOTOGRAMMETRIC PLOT REPORT	11. DETAIL POINTS
ALONGSHORE AREAS (Nautical Chart Data)			
12. SHORELINE RES	13. LOW-WATER LINE RES	14. ROCKS, SHOALS, ETC. RES	15. BRIDGES RES
16. AIDS TO NAVIGATION RES	17. LANDMARKS XX	18. OTHER ALONGSHORE PHYSICAL FEATURES RES	19. OTHER ALONGSHORE CULTURAL FEATURES RES
PHYSICAL FEATURES			
20. WATER FEATURES RES	21. NATURAL GROUND COVER XX		22. PLANETABLE CONTOURS NA
23. STEREOSCOPIC INSTRUMENT CONTOURS NA	24. CONTOURS IN GENERAL NA	25. SPOT ELEVATIONS XX	26. OTHER PHYSICAL FEATURES XX
CULTURAL FEATURES			
27. ROADS RES	28. BUILDINGS RES	29. RAILROADS RES	30. OTHER CULTURAL FEATURES RES
BOUNDARIES			
31. BOUNDARY LINES NA		32. PUBLIC LAND LINES NA	
MISCELLANEOUS			
33. GEOGRAPHIC NAMES RES	34. JUNCTIONS RES		35. LEGIBILITY OF THE MANUSCRIPT RES
36. DISCREPANCY OVERLAY RES	37. DESCRIPTIVE REPORT RES	38. FIELD INSPECTION PHOTOGRAPHS XX	39. FORMS RES
40. REVIEWER R. E. Smith <i>Albert C. Rauck, Jr.</i> Nov. 1967		SUPERVISOR, REVIEW SECTION OF UNIT <i>Albert C. Rauck, Jr.</i> A.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 A. L. Shands Reviewer: L. L. Graves July 24, 1972		SUPERVISOR <i>Albert C. Rauck, Jr.</i>	
43. REMARKS Field Edit Applied From: Paper and ced anaflex ozalids of T-12388, field photos 65 S (c)-7233, 70 L (c)-3959, 70 L (c)-3979 - Forms 526 and 567.			

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FIELD EDIT REPORT

JOB PH-6601

Map T-12388

Massachusetts

This map was field-edited during the month of August 1970. The map was compiled without field inspection prior to completion, therefore, a complete and thorough field edit was done. All field notes were made in violet ink on the ratio prints and referenced from the field edit sheet.

51 METHODS

Field edit of this map area was accomplished by the following methods, by truck and skiff travel and by walking a few sections of the shoreline.

52 ADEQUACY OF COMPILATION

The adequacy of the compilation was good. A few distances were measured from photographic points to the high water line and all checked good, also a visual inspection of the low water line was made at several points and found to be adequate.

54 RECOMMENDATIONS

None

56 LANDMARKS AND AIDS

Form 567 were submitted with sheets T-12984 and T-13242 Sept. 1, 1970 for all nautical landmarks within the limits of this map, there are no fixed aids located in this map area.

57 ROCKS

There are very few rocks within the limits of this map, these are located in the Chelsea River, these rocks are noted on the field edit sheet and referenced to a photograph.

58 MISCELLANEOUS

Form 526 copies are submitted for all nautical landmarks which have triangulation positions and for the ground stations recovered in connection with photo-hydro support.

Corrections and additions for landmarks buildings are noted on the field edit sheet and referenced to a photograph.

Field edit additions and corrections are shown on ratio prints 65-S-7233 70-L-3959 and 70-L-3979 (the later being sent in with sheets T-12984 and T-13242.

SUBMITTED BY:

Erwest W. Hartford
Erwest W. Hartford

Surveying Technician
Sept. 30 1970

STRIKE OUT TWO

ENGINEERING AND/OR LANDMARKS FOR CHARTS

Atlantic Marine Center

July 13, 1972

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

The positions given have been checked after listing by

A. L. SHANDS

Alfred C. Holmes, RADM, NOAA
Director, AMC 93660000

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.

* TABULATE SECONDS AND METERS

23

REVIEW REPORT T-12388

SHORELINE

November, 1973

61. GENERAL STATEMENT

See summary which is page 6 of the Descriptive Report.

62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS

None available in this office at the present time.

This survey supersedes any prior survey and should be used for nautical chart construction purposes.

63. COMPARISON WITH MAPS OF OTHER AGENCIES

Comparison was made with U.S.G.S. Quadrangle Boston North, MA, dated 1956, ~~and~~ at 1:24,000 scale. There is very good general agreement with only minor differences in shoreline accounted for by man and natural changes.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS

Comparison was made with boat sheet H-9134, 1970 at 1:10,000 scale. It covered only that section of navigable water at Logan International Airport. There are no other contemporary hydro surveys covering this sheet. Boat sheet H-9134 was in excellent agreement.

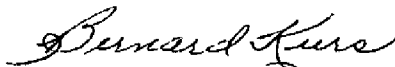
65. COMPARISON WITH NAUTICAL CHARTS

Comparison was made with Chart 248, March 25, 1972 at 1:10,000. There is very good agreement with only very minor changes in shoreline due to natural and man-made changes.

66. ADEQUACY OF RESULTS AND FUTURE SURVEYS

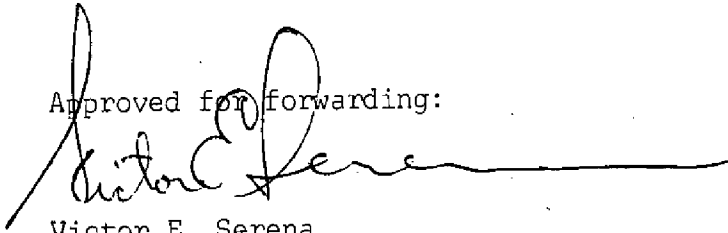
This survey complies with project instructions and meets the National Standards of Map Accuracy.

Reviewed by:



Bernard Kurs
Cartographer

24
Approved for forwarding:



Victor E. Serena
Chief, Photogrammetric Branch, AMC

Approved:



Chief, Photogrammetric Branch For: Chief, Coastal Mapping Division