9079

Diag. Cht. Nos. 1206 & 1207-2.

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Shoreline

Field No. PH-114B Office No. T-9079

LOCALITY

State Massachusetts

General locality Gloucester Harbor

Locality Salt Island to Graves Island

1952-53

CHIEF OF PARTY

E.H.Kirsch, Chief of Field Party
I.R.Rubottom, Tampa Photo. Office

LIBRARY & ARCHIVES

DATE December 17, 1959

8-1870-1 (1)

9079

DATA RECORD

T - 9079

Project No. (II): Ph-114B(53) Quadrangle Name (IV):

Field Office (II): Newburyport, Massachusetts Chief of Party: E. H. Kirsch

Photogrammetric Office (III): Tampa, Florida Officer-in-Charge: Ira R. Rubottom

Instructions dated (II) (III): 13 March 1953
Supplement No. 1: 28 March 1953
" No. 2: 30 April 1953
" No. 3: 6 May 1953
" No. 4: 26 May 1953
" No. 5: 25 June 1953
Method of Compilation (III): Graphic

Copy filed in Division of Photogrammetry (IV)

Manuscript Scale (III): 1:10,000 Stereoscopic Plotting Instrument Scale (III): Inapplicable

Scale Factor (III): None

Date received in Washington Office (IV): 4-25-55 Date reported to Nautical Chart Branch (IV): MAY - 5 1955

Applied to Chart No. Date: Date registered (IV): 7/3/57

Publication Scale (IV): Publication date (IV):

Geographic Datum (III): N. A. 1927 Vertical Datum (III): M.H.W.

~~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): NECK, 1943

Lat.: 42° 35' 36".606 (1129.5m.) Long.: 70° 40' 56".059 (1278.1m.) Adjusted

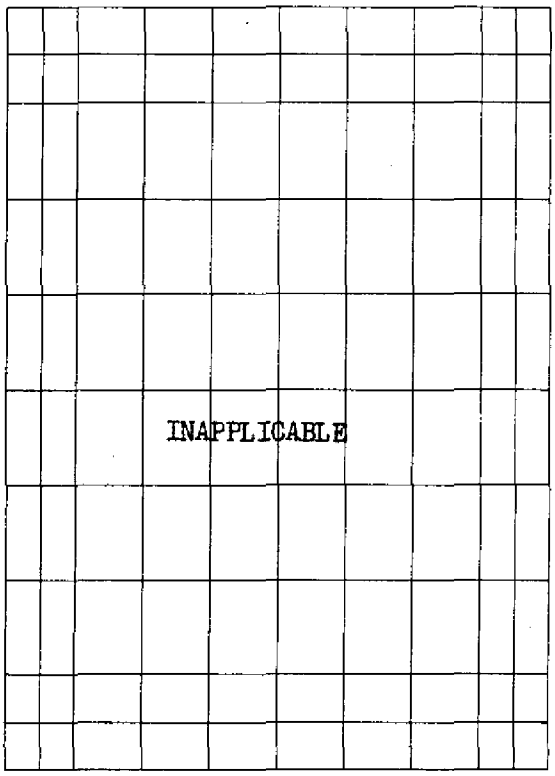
Plane Coordinates (IV): State: Zone:

Y= X=

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.

M-2618-12(4)



Areas contoured by various personnel
(Show name within area)
(II) (III)

DATA RECORD

Field Inspection by (II): J. C. Lajoye, H. R. Spies, L. F. Beugnet — Date: March 1953 to October 1953

Planetable contouring by (II): Inapplicable — Date:

Completion Surveys by (II): — Date:

Mean High Water Location (III) (State date and method of location): October 1953 Air Photo Compilation

Projection and Grids ruled by (IV): Austin Riley (W. O.) — Date: 14 Aug. 1953

Projection and Grids checked by (IV): H. D. Wolfe (W. O.) — Date: 17 Aug. 1953

Control plotted by (III): R. A. Reece — Date: 21 Oct. 1953

Control checked by (III): J. A. Johnson — Date: 22 Oct. 1953

Radial Plot ~~or Stereoscopic Control extension~~ by (III): M. M. Slavney — Date: 25 Nov. 1953

Stereoscopic Instrument compilation (III): Planimetry — Date:

Contours: Inapplicable — Date:

Manuscript delineated by (III): I. I. Saperstein — Date: Oct. 1954

Photogrammetric Office Review by (III): J. A. Giles — Date: Jan. 1955

Elevations on Manuscript checked by ~~(II)~~ (III): Inapplicable — Date:

Camera (kind or source) (III): Robinson Aerial Surveys and Cartographic Camera J.

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide
DPP-9K-149 & 150	26 Aug. 1952	13:17	1:10,000	)
DPP-9K-151 & 152	"	13:18	"	)
DPP-9K-153	"	13:19	"	)
DPP-9K-156	"	13:23	"	)
DPP-9K-157 & 158	"	13:24	"	)
DPP-9K-159	"	13:25	"	) Mean of photos
DPP-9K-169	"	13:35	"	) 7.9
DPP-9K-170	"	13:36	"	)
DPP-9K-171	"	13:37	"	)
DPP-9K-172 & 173	"	13:38	"	)
DPP-9K-175	"	13:42	"	)
DPP-9K-176	"	13:43	"	)
53-J-251	22 Apr. 1953	08:11	"	5.6
53-J-088 to 094	18 Apr. 1953			Low water photography

Tide (III)

FROM PREDICTED TIDES: MHW

	Ratio of Ranges	Mean Range	Spring Range
Reference Station: Boston	-	9.5	11.0
Subordinate Station: Gloucester	0.9	8.7	10.1
Subordinate Station:			

Washington Office Review by (IV): Lina T. Stevens Date: 25 May, 1955

Final Drafting by (IV): Date:

Drafting verified for reproduction by (IV): Date:

Proof Edit by (IV): Date:

Land Area (Sq. Statute Miles) (III): 3

Shoreline (More than 200 meters to opposite shore) (III): 20

~~Shoreline (Less than 200 meters to opposite shore) (III):~~

Control Leveling - Miles (II):

Number of Triangulation Stations searched for (II): 62 Recovered: 46* Identified: 22

Number of BMs searched for (II): 8 Recovered: 8 Identified: 1

Number of Recoverable Photo Stations established (III): 0

Number of Temporary Photo Hydro Stations established (III): 154

Remarks:

*Includes 3 stations for which no positions were available in the Tampa Office and are not shown on manuscript.

Summary to Accompany T-9079

Field instructions were issued for Ph-114 on 13 March 1953 to provide shoreline and control for inshore hydrographic surveys and to provide standard shoreline manuscripts for chart compilation. The hydrographic phase of this surveying was accomplished in the summer of 1953 under instructions for project CS-355 (Plum Island Sound to Portsmouth Harbor) and CS-361 (Cape Porpoise Harbor). No hydrographic survey has been made in Ph-114 in the area south of Plum Island Sound, i.e., in the area included by T-11155, T-11156, and T-9079.

PHOTOGRAMMETRIC PLOT REPORT.

21. AREA COVERED.

Photogrammetric Plot Number 2, of Ph-114B(53), was for Maps T-11155, T-11156, T-9079 and the southeast portion of T-11154. Survey T-11154 was a part of Plot Number 1, but compilation of the southeast portion was postponed until Plot Number 2 could give stronger positions in this area. These surveys cover Massachusetts from IPSWICH BAY to MASSACHUSETTS BAY. Reference Paragraph 4 under "Closure and adjustment to control" on Page 2 and copies of pertinent correspondence in Report on Photogrammetric Plot No. 1 of Ph-114B(53).

The sketch on page 4 of this report shows the arrangement of maps, the identified control, index of control, photograph centers and the adjoining maps of Plot Number 1 of Ph-114B(53).

22. METHOD.

Radial Plot:

Map manuscripts: -- The map projections are on acetate at 1:10,000 scale with the polyconic projection in black and the Massachusetts grid in red. T-11155 and T-11156 are 4' 30" in latitude and 7' 30" in longitude; and T-9079 is 3' 45" in latitude and 8' 00" in longitude.

The base grids used for laying the plot are vinylite with the 5,000-foot interval at 1:10,000 scale. Control was transferred from the projections to the base grids by matching grid values and adjusting the scale differences.

Photographs: -- The photographs are single-lens ratio prints at approximately 1:10,000 scale. The DPP-9K series were taken by Robinson Aerial Surveys for the Production and Marketing Administration of the Department of Agriculture on 26 August 1952 at 1:20,000 scale. The 53-J series were taken on 22 April 1953 at 1:24,000 scale by the Coast and Geodetic Survey with Cartographic Camera J. All the prints were made using the distortion plate in the Saltzman projector.

Templets: -- Vinylite templets were made from the photographs using the master templet furnished by the Washington Office for ratio prints made with the distortion plate.

Closure and adjustment to control: -- The photograph centers, pass points, and control from the adjoining area of Plot Number 1 of Ph-114B(53) were plotted on the base grids. It is noted that the final plot for the south half of the eastern portion of T-11154 had been delayed until this plot was run.

A preliminary radial plot indicated that all control would be held.

The final radial plot was started with fixed templets in T-11155, T-11156 and T-9079 and proceeded conventionally to completion. Junction with the already delineated part of T-11154 was excellent; some small shifts were made in the southeastern part of T-11154. All control was held and no unusual problems were encountered.

On T-11156 it was not possible to locate DRY SALVAGES ISLAND, circled in red on sketch, because it was impossible to fix Photograph DPP-9K-183, one of the two photographs on which the island appeared.

23. ADEQUACY OF CONTROL.

Control was adequate for a good plot. The control on the west side of T-9079 served to fix the end of one of the flights comprising the junction of T-11154 and T-11155.

24. SUPPLEMENTAL DATA.

None

25. PHOTOGRAPHY.

Photographic coverage was adequate with the exception of DRY SALVAGES ISLAND mentioned under Item 22. The prints were enlargements on impregnated paper using the distortion plate in the printer. The two-diameter enlargements of the Department of Agriculture negatives were superior in contrast and definition to the 2.4-diameter enlargements from the Camera J negatives. Some tilt was noticed but not enough to merit special attention.

26. GENERAL.

A final check was made to insure proper transfer of all pass points, control and photograph centers to the material limits of the map manuscripts.

Dates of completion of the photogrammetric plot are as follows:

T-11155 and T-11156	on	23 November 1953
T-9079	on	25 November 1953

Respectfully submitted

Milton M. Slavney

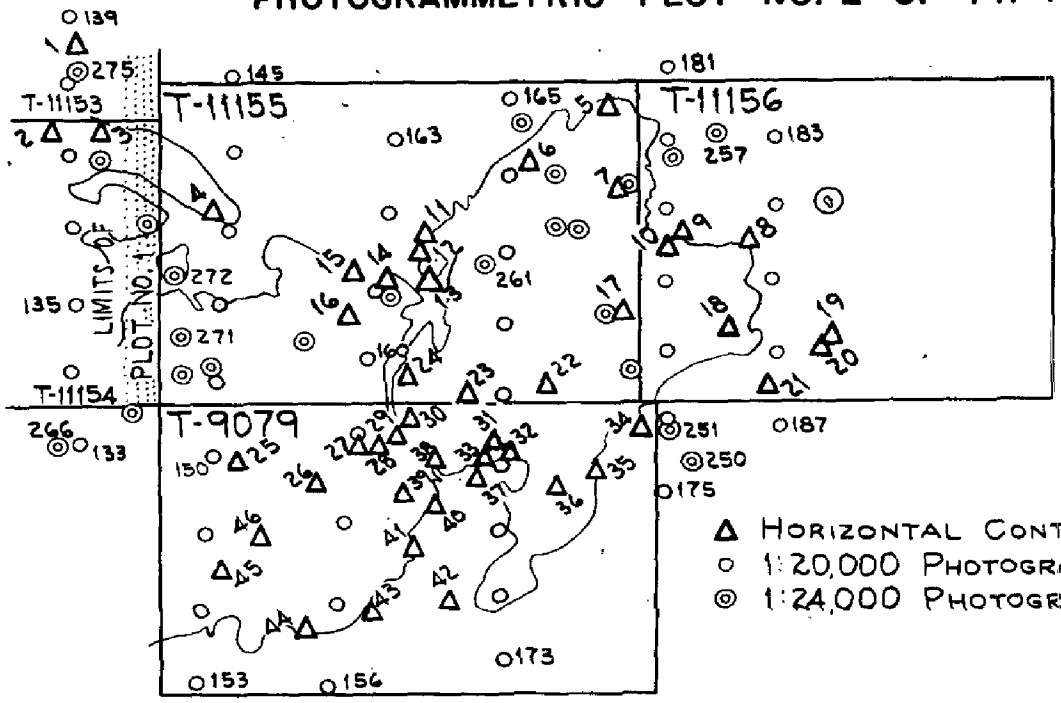
Milton M. Slavney,
Cartographer,
Tampa Photogrammetric Office

APPROVED AND FORWARDED:

Ira R. Rubottom

Ira R. Rubottom, Chief of Party

SKETCH FOR REPORT ON PHOTOGRAMMETRIC PLOT NO. 2 OF PH-114B(53)



INDEX OF CONTROL

1. SUB. POINT "A" SOUTH PLUM, 1943
2. CASTLE DOME, 1941
3. IPSWICH LIGHTHOUSE (CASTLE NECK LIGHTHOUSE), 1941
4. SUB. POINTS 1 & 2 CASTLE NECK, 1953
5. SUB. POINT HALIBUT POINT 136, 1941
6. LANESVILLE CHURCH SPIRE, 1902
7. ROCKPORT PIGEON HILL STANDPIPE (M.G.S.), 1940.
8. SUB. POINT STONEHAVEN (M.G.S.), 1939
9. ROCKPORT BREAKWATER LIGHT, 1953
10. ROCKPORT UNIVERSALIST CHURCH SPIRE, 1916
11. ANNISQUAM HARBOR LIGHTHOUSE, 1902
12. PERCH, 1928
13. STONE, 1928
14. SUB. POINT COFF, 1928
15. HU, 1928
16. SUB. POINT WING (M.G.S.), 1939
17. ROCKPORT WATER TOWER, 1902
18. CAPE ANN, TURKS HEAD INN CUPOLA, 1916
19. THATCHER ISLAND NORTH LIGHTHOUSE, 1941
20. THATCHER ISLAND SOUTH LIGHTHOUSE, 1941
21. SUB. POINT MILK ISLAND 2, 1916
22. SUB. POINT RAILCUT, 1834
23. GLOUCESTER TANK (M.G.S.), 1935
24. SUB. POINT SUNSET, 1928
25. SUB. POINT THOMPSON, 1846
26. SUB. POINT 7 W (M.G.S.), 1934
27. SUB. POINT 7 AA (M.G.S.), 1934
28. LEE, 1928
29. SUB. POINT 7 AE (M.G.S.), 1934
30. SUB. POINT MEAD 2 (M.G.S.), 1934
31. PORTUGUESE CHURCH WEST TOWER, 1916
32. GAS, 1928
33. GLOUCESTER CITY HALL, 1902
34. SUB. POINT SALT ISLAND 2, 1916
35. GLOUCESTER RED BROWN HOUSE CUPOLA, 1916
36. SUB. POINT BEACON HILL 1, 1849
37. GEN, 1928
38. SUB. POINT CITY LEDGE (M.G.S.), 1934
39. SUB. POINT BOND HILL, 1902
40. SUB. POINT FORT (M.G.S.), 1934
41. SUB. POINT NECK, 1943
42. DOG BAR LIGHT, 1916
43. SUB. POINT WOE, 1943
44. MAGNOLIA OCEANSIDE HOTEL, RED DOME, 1916
45. SUB. POINT 7 S (M.G.S.), 1934
46. SUB. POINT 7 U (M.G.S.), 1934

Photogrammetry

MAP T- 9079 PROJECT NO. Ph-114(53)B SCALE OF MAP 1:10,000 SCALE FACTOR ---

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE / LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET. OR PROJECTION LINE IN METERS FORWARD (BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)
THOMPSON, 1846	G.Ps. p. 2	N.A. 1927	42° 36' 41.345			1275.8 (575.6)	
			70 43 49.176			1120.9 (246.7)	
BOND HILL, 1902	p. 276	"	42 36 18.712			577.4 (1274.0)	
			70 41 11.319			258.0 (1109.7)	
NECK, 1943	p. 374	"	42 35 36.606			1129.5 (721.9)	
			70 40 56.059			1278.1 (89.9)	
EASTERN POINT LIGHTHOUSE, 1902	p. 279	"	42 34 48.549			1498.0 (353.3)	
			70 39 53.943			1230.1 (138.1)	
FORT, 1934	p. 277	"	42 36 17.657			544.8 (1306.6)	
			70 40 38.060			867.6 (500.1)	
DOG BAR, 1940	p. 277	"	42 34 57.141			1763.1 (88.3)	
			70 40 22.457			512.1 (856.1)	
GLOUCESTER EASTERN PT. RADIO MAST, 1940	p.280	"	42 34 50.194			1548.8 (302.6)	
			70 39 53.573			1221.7 (146.6)	
DOG BAR LT. 1916	p. 280	"	42 34 57.041			1760.1 (91.3)	
			70 40 22.306			508.6 (859.6)	
CITY LEDGE, 1934	p. 277	"	42 36 47.985			1480.7 (370.7)	
			70 40 41.199			939.0 (428.5)	
KENT, 1934	p. 277	"	42 36 33.294			1027.4 (824.0)	
			70 40 35.243			803.3 (564.3)	
RAILROAD LEDGE, 1934	p. 277	"	42 37 00.318			9.8 (1841.6)	
			70 40 42.645			971.9 (395.5)	
TEN POUND ISLAND LIGHTHOUSE, 1902	p. 279	"	42 36 06.395			197.3 (1654.1)	
			70 39 57.805			1317.7 (50.0)	

1 FT. = .3048006 METER

COMPUTED BY: R. A. Reece DATE 14 October 1953 CHECKED BY: J. E. Johnson DATE 16 October 1953

M-2388-12

Photogrammetry

MAP T- 9079 PROJECT NO. Ph-114 (53) B SCALE OF MAP 1:10,000 SCALE FACTOR ---

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE / LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD (BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)
PAVILION, 1934	Photo GL Quad.	N.A. 1927	42° 36' 35.781			1104.1 (747.3)	
			70 40 07.742			176.5 (1191.1)	
MEAD 2, 1934	G. Pos. p. 277	"	42 37 17.798			549.2 (1302.2)	
			70 41 03.097			70.6 (1296.9)	
LEE, 1928	p. 880	"	42 36 56.755			1751.3 (100.1)	
			70 41 28.109			640.6 (726.9)	
TARR, 1928	p. 880	"	42 36 22.481			693.7 (1157.7)	
			70 39 39.467			899.7 (468.0)	
TAV, 1928	p. 882	"	42 36 35.510			1095.7 (755.7)	
			70 40 03.400			77.5 (1290.1)	
PYR, 1928	p. 882	"	42 36 47.266			1458.5 (392.9)	
			70 39 53.638			1222.5 (145.1)	
GAS, 1928	p. 882	"	42 36 50.313			1552.5 (298.9)	
			70 39 27.897			635.8 (731.7)	
BLYN, 1928	p. 881	"	42 36 36.17			1116.1 (735.3)	
			70 40 26.15			596.0 (771.6)	
GEN, 1916 1928			42 36 33.921	Admk "Tower" on		1046.8	
			70 39 57.491	charts 233, & 243		1310.3	
BEACON HILL 1, 1849	p. 276	"	42 36 24.355			751.5 (1099.9)	
			70 38 43.035			981.0 (386.7)	
GLOUCESTER UNIVERSALIST CHURCH, 1849	p. 831	"	42 36 47.070			1452.5 (398.9)	
			70 40 00.161			3.7 (1363.9)	
GLOUCESTER RED BROWN HOUSE CUPOLA, 1916	p. 855	"	42 36 38.115			1176.1 (675.3)	
			70 38 04.651			106.0 (1261.6)	

1 FT. = .3048006 METER

COMPUTED BY: R. A. Reece DATE 14 October 1953 CHECKED BY: J. E. Johnson DATE 16 October 1953

M-2388-12

Photogrammetry

MAP T- 9079 PROJECT NO. PH-114 (53)B SCALE OF MAP 1:10,000 SCALE FACTOR ---

STATION	SOURCE OF INFORMATION (INDEX)	DATUM *	LATITUDE OR y-COORDINATE LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD (BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)
7AA (MGS)	Photo G.L.Quad	N A 1927	42° 36' 56.580			1745.9 (105.5)	
			70 41 55.389			1262.4 (105.1)	
7AB (MGS)	"	"	42 - 36 - 59.206				
			70 41 33.860				
7AE (MGS), 1934	G. Pos. p. 276	"	42 37 03.865			119.3 (1732.1)	
			70 41 12.128			276.4 (1091.1)	
7 S (MGS)	Photo G L Quad	"	42 35 17.085			527.2 (1324.2)	
			70 44 08.621			196.6 (1171.5)	
7 T (MGS), 1934	"	"	42 35 33.211			1024.8 (826.6)	
			70 43 41.602			948.5 (419.5)	
7 U (MGS)	"	"	42 35 42.687			1317.2 (534.2)	
			70 43 29.999			683.9 (684.0)	
7 V (MGS)	"	"	42 36 21.047			649.4 (1202.0)	
			70 42 48.181			1098.3 (269.4)	
7 W (MGS)	"	"	42 36 27.860			859.7 (991.7)	
			70 42 34.968			797.1 (570.6)	
7 X (MGS)	"	"	42 36 38.975			1202.6 (648.8)	
			70 42 25.998			592.6 (775.0)	
7 Y (MGS)	"	"	42 36 52.488			1619.6 (231.8)	
			70 42 09.906			225.8 (1141.7)	
7 Z (MGS)	"	"	42 36 54.326			1676.3 (175.1)	
			70 42 04.950			112.8 (1254.7)	

1 FT. = .3048006 METER

COMPUTED BY: R. A. Reece DATE 14 October 1953 CHECKED BY: J. E. Johnson DATE 16 October 1953

M-2388-12

Photogrammetry

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MAP T-9079 PROJECT NO. Ph-114 (53) B SCALE OF MAP 1:10,000 SCALE FACTOR ---

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET. OR PROJECTION LINE IN METERS FORWARD (BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)
HEAD, 1943	G. Pos. p. 374	N.A. 1927	42° 36' 12".601			388.8 (1462.6)	
			70 40 40.145			915.1 (452.6)	
MUSCLE, 1943	"	"	42 35 17.396			536.8 (1314.6)	
			70 41 08.183			186.6 (1181.5)	
WOE, 1943	"	"	42 34 46.153	not visited, see 526		1424.1 (427.3)	
			70 41 39.492	WOE REAR, 1943 comp. ~~recovered and Iden. see pos.~~		900.6 (467.7)	
GLOUCESTER, PORTUGUESE CH. E. TWR.1916	p.853	"	42 37 00.543			16.7 (1834.7)	
			70 39 27.075			617.1 (750.4)	
GLOUCESTER, PORTUGUESE CH. W. TWR,1916	"	"	42 37 00.635			19.6 (1831.8)	
			70 39 27.615			629.4 (738.1)	
MAGNOLIA, OCEANSIDE HOTEL RED DOME,1916	p.854	"	42 34 31.694			978.0 (873.4)	
			70 42 40.896			932.7 (435.7)	
SALT ISLAND 2, 1916	p.853	"	42 37 10.973			338.6 (1512.8)	
			70 37 25.358			577.9 (789.5)	
BEACON HILL 2, 1849	p.828	"	42 36 11.165			344.5 (1506.9)	
			70 38 38.671			881.5 (486.2)	
GLOUCESTER - MANCHESTER No. 3			42 35 16.857				
			70 44 03.771				
GLOUCESTER CITY HALL, 1902	p.278	"	42 36 50.295			1552.0 (294.4)	
			70 39 48.231			1099.3 (268.2)	
BALD TOP, 1934	p.277	"	42 37 29.667			915.7 (935.7)	
			70 41 02.586			58.9 (1308.5)	

1 FT. = .3048006 METER

COMPUTED BY: R. A. Reece DATE 14 October 1953 CHECKED BY: J. E. Johnson DATE 16 October 1953

M-2388-12

585

Photogrammetry

MAP T- 9079 PROJECT NO. Ph-114 (53) B SCALE OF MAP 1:10,000 SCALE FACTOR ---

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE / LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD (BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)
~~GLOUCESTER CATHOLIC CH. SPIRE, 1902~~	~~G.Pos. p.278~~	~~N.A. 1927~~	~~42° 36' 57.389~~ / ~~70 39 49.067~~	DESTROYED		~~1770.9 (80.5)~~ / ~~1118.3 (249.2)~~	
~~MUSCLE, 1928~~	~~p.881~~	"	~~42 35 14.736~~ / ~~70 41 12.780~~	DESTROYED		~~454.7 (1396.7)~~ / ~~291.4 (1076.7)~~	
HAM, 1928	p.881	"	42 35 53.744 / 70 41 03.398			1658.3 (193.1) / 77.5 (1290.3)	FLAG POLE ON SPIRE, BOLT DESTROYED, SPIKE USED AS HYORD, SIGNAL, ON SHORT WITH RED Δ
~~VANE, 1928~~	~~p.883~~	"	~~42 35 51.489~~ / ~~70 38 58.806~~	DESTROYED		~~1508.7 (262.7)~~ / ~~1340.7 (27.1)~~	

1 FT. = .3048006 METER

COMPUTED BY: R. A. Reece DATE 14 October 1953 CHECKED BY: J. E. Johnson DATE 19 October 1953

M-2388-12

Photogrammetry

MAP T- 11155 PROJECT NO. Ph 114 (53) B SCALE OF MAP 1:10,000 SCALE FACTOR ---

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE / LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET. OR PROJECTION LINE IN METERS FORWARD (BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)
RAILCUT, 1834	G.Pos. p. 276	N.A. 1927	42° 37' 42.287 70 38 58.424			1304.8 (546.6) 1331.3 (35.9)	
RUSTS ISLAND SOUTH BASE (MGS) 1941	p. 359	"	42 37 30.521 70 41 31.893			941.8 (909.6) 726.8 (640.5)	
POOL HILL, 1849	"	"	42 39 24.101 70 38 05.797			743.7 (1107.7) 132.0 (1234.6)	
ANNISQUAM HARBOR LIGHTHOUSE, 1902	p. 279	"	42 39 42.441 70 40 55.277			1309.6 (541.8) 1258.9 (107.6)	
LANESVILLE, CH. SPIRE, 1902	p. 375	"	42 40 41.086 70 39 15.882			1267.8 (583.6) 361.6 (1004.5)	
PIGEON, 1902	"	"	42 40 19.869 70 37 45.207			613.1 (1238.3) 1029.4 (336.9)	
ROCKPORT WATER TOWER, 1902	p. 279	"	42 38 40.498 70 37 47.158			1249.6 (601.8) 1074.3 (292.5)	
COFT, 1928	p. 880	"	42 39 07.921 70 41 37.559			244.4 (1607.0) 855.5 (511.2)	
HO, 1928	p. 884	"	42 38 59.259 70 42 03.923			1828.6 (22.8) 89.4 (1277.3)	
PERCH, 1928	p. 884	"	42 39 29.731 70 41 01.521			917.4 (934.0) 34.6 (1332.0)	
SQUAM ROCK, 1928	p. 880	"	42 39 26.289 70 40 39.683			811.2 (1040.2) 903.8 (462.8)	
STONE, 1928	p. 884	"	42 39 05.30 70 40 45.12			163.5 (1687.9) 1027.7 (339.0)	

1 FT. = .3048006 METER

COMPUTED BY: R. A. Reece DATE 13 October 1953 CHECKED BY: J. E. Johnson DATE 19 October 1953

M-2388-12

Photogrammetry

MAP T- 11155 PROJECT NO. Ph - 114 (53)B SCALE OF MAP 1:10,000 SCALE FACTOR ---

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE / LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD (BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)
SUNSET, 1928	G.Pos. p.276	N A 1927	42° 37' 48.595			1499.5 (351.9)	
			70 41 04.926			112.2 (1255.0)	
GLOUCESTER TANK, 1935	p.279	"	42 37 36.175			1116.3 (735.1)	
			70 40 08.439			192.3 (1175.0)	
ROCKPORT PIGEON HILL STANDPIPE,1940	"	"	42 40 19.633			605.8 (1245.6)	
			70 37 46.481			1058.4 (307.9)	
WING, 1939	p.276	"	42 38 35.035			1081.1 (770.3)	
			70 42 03.701			84.3 (1282.6)	
HALIBUT PT. 136, 1941	p.358	"	42 41 19.482			601.2 (1250.2)	
			70 37 59.121			1345.9 (20.0)	
RUSTS ISLAND NORTH BASE (MGS), 1941	p.359	"	42 37 38.485			1187.5 (663.9)	
			70 41 30.002			683.7 (683.6)	
CASTLE NECK, 1953	letter p.	"	42 40 01.933			59.6 (1791.8)	
			70 44 10.029			228.4 (1138.0)	

1 FT. = .3048006 METER

COMPUTED BY: R. A. Reece DATE 13 October, 1953 CHECKED BY: J. E. Johnson DATE 19 October 1953

M-2388-12

Photogrammetry

MAP T- 11156 PROJECT NO. Ph 114 (53)B SCALE OF MAP 1:10,000 SCALE FACTOR ---

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD (BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)
THATCHERS ISLAND, 1849	G. Pos. p.829	N A 1927	42° 38' 10.364 70 34 46.312			319.8 (1531.6) 1055.2 (311.8)	
ROCKPORT ORTHODOX CHURCH, 1902	p.835	"	42 39 28.213 70 37 09.728			870.6 (980.8) 221.6 (1145.0)	
STRAITSMOUTH LIGHTHOUSE, 1902	p.280	"	42 39 43.786 70 35 19.173			1351.1 (500.3) 436.7 (929.8)	
ANDREWS POINT, FOUNDRY STACK,1916	p.857	"	42 40 36.463 70 37 28.523			1125.1 (726.3) 649.4 (716.8)	
CAPE ANN TURKS HEAD INN CUPOLA,1916	p.856	"	42 38 28.510 70 36 02.497			879.7 (971.7) 56.9 (1310.0)	
MILK ISLAND 2, 1916	p. 853	"	42 37 40.629 70 35 32.023			1253.7 (597.7) 729.7 (637.6)	
PIGEON COVE ORTHODOX CH. SPIRE,1916	p. 835	"	42 40 29.13 70 37 26.13			898.9 (952.5) 595.0 (771.2)	
ROCKPORT COAST GUARD STA. IRON TWR.1916	p. 858	"	42 39 32.44 70 35 53.66			1001.0 (850.4) 1222.2 (144.3)	
ROCKPORT METHODIST CHURCH SPIRE, 1916	"	"	42 39 22.98 70 37 13.20			709.1 (1142.3) 300.7 (1065.9)	
ROCKPORT WEATHER BUREAU TOWER, 1916	p. 856	"	42 39 34.011 70 35 53.126			1049.5 (801.9) 1210.0 (156.5)	
HIGH ROCK (ROCKPORT TOWN)1939	p. 278	"	42 38 24.518 70 36 45.387			756.6 (1094.8) 1034.1 (332.8)	
STONEHAVEN (ROCKPORT TOWN)1939	"	"	42 39 38.370 70 35 46.739			1184.0 (667.4) 1064.5 (302.0)	

1 FT. = .3048006 METER

COMPUTED BY: R. A. Reece DATE 15 October 1953 CHECKED BY: J. E. Johnson DATE 19 October 1953

M-2388-12

Photogrammetry

MAP T- 11156 PROJECT NO. Ph 114 (53) B SCALE OF MAP 1:10,000 SCALE FACTOR ---

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD (BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)
ROCKPORT COAST GUARD CUPOLA, 1940	G.Pos. p. 280	N A 1927	42° 39' 32.174 70 35 54.239			992.8 (858.6) 1235.3 (131.3)	
CAPE ANN NORTH LIGHTHOUSE, 1902	"	"	42 38 20.654 70 34 31.100	This is the G P available for THATCHER ISLAND NORTH LIGHTHOUSE on 526		637.3 (1214.1) 708.6 (658.4)	
~~THATCHERS~~ THACHERS ISLAND, SOUTH LIGHT, 1940	"	"	42 38 12.226 70 34 31.830	" and M-226 12		377.3 (1474.1) 725.2 (641.8)	
DODGE ROCK BEACON 1916	p.857	"	42 40 03.435 70 37 07.535			106.0 (1745.4) 171.6 (1194.8)	
ROCKPORT COUNTRY CLUB FLAGPOLE, 1916		L	O	S		T	
DRY SALVAGE BEACON 1943			No Position in Tango				
EMERSON POINT 135 1941	p. 358	"	42 38 24.698 70 35 59.615			762.1 (1089.3) 1358.2 (8.8)	
ROCKPORT UNIVERSAL-IST. CH. SPIRE, 1916	p. 856	"	42 39 27.425 70 37 13.459			846.3 (1005.1) 306.5 (1060.1)	
ROCKPORT BREAKWATER LIGHT, 1953	Field Comp.	"	42 39 38.337 70 36 44.590			1183.0 (668.4) 1015.5 (351.0)	

1 FT. = .3048006 METER

COMPUTED BY: R. A. Reece DATE 15 October 1953 CHECKED BY: J. E. Johnson DATE 19 October 1953

M-2388.12

THE FIELD INSPECTION REPORT

HAS BEEN ~~SUBMITTED AS A~~

~~SEPARATE REPORT~~
Filed with T-11148

COMPILATION REPORT TO ACCOMPANY T-9079

PHOTOGRAMMETRIC PLOT REPORT:

Submitted ~~under separate cover~~ as a part of this report.

31. DELINEATION.

The manuscript was compiled by the graphic method. The limits of delineation were taken from map submitted by the Washington Office. The field inspection was adequate and no difficulty was encountered in the interpretation of the photographs. The 1:10,000 scale contact prints flown at low-water were of poor scale and it was necessary to use the projector to delineate the low-water line accurately. However, there was insufficient low-water photographic coverage in the northeast corner of the manuscript at BASS ROCKS and GOOD HARBOR BEACH. This area should be completed by the hydrographer.

32. CONTROL.

Reference photogrammetric plot report. (9K-158)

It may be noted that hydro signal 79130 (center of round stone tower) cut in at exactly the same position as triangulation station HAM 1928, the flagpole atop the tower, reported destroyed in 1953, proving the strength of the radial plot.

33. SUPPLEMENTAL DATA.

None.

34. CONTOURS AND DRAINAGE.

Inapplicable.

35. SHORELINE AND ALONGSHORE DETAILS.

The shoreline inspection was adequate and no difficulty was encountered in delineating the mean high-water line.

The approximate low-water line was delineated as shown by the field inspector. Other low-water lines were taken from the low-water photographs. (See Item 31) 53-J-088/094 (Southeast Har., Eastern Pt., Atlantic Ocean)

36. OFFSHORE DETAILS.

No unusual problem was encountered in compiling offshore details.

37. LANDMARKS AND AIDS.

Landmarks are to be shown by the hydrographer. However, it may be noted that triangulation station GEN, 1928 is not plotted on the manuscript because of the lack of the G. P. in the Tampa Office. This station is shown on Chart 233 as landmark "TOWER" and should be plotted on the manuscript as an aid to the hydrographer.

38. CONTROL FOR FUTURE SURVEYS:

No recoverable topographic stations were established. 154 photo-hydro stations were established. A list of these stations and the description of each is included under Item 49.

39. JUNCTIONS.

A junction has been made with T-11155 to the north.

A junction has been made with T-11156 to the northeast except for the MHW line. The shoreline on T-11156 is incorrect and should be changed to junction with T-9079.

There are no contemporary surveys to the west, east and south.

40. HORIZONTAL AND VERTICAL ACCURACY.

Where photographic coverage was insufficient to obtain three cuts to any point, a green circle was used to show a two cut intersection. However, these points are believed to be within the limits of accuracy.

41. URBAN LIMITS.

Urban limits were taken from the Gloucester, Massachusetts quadrangle and no buildings were shown within these limits except along the shore or to the first street inshore. No actual line was delineated.

46. COMPARISON WITH EXISTING MAPS.

Comparison has been made with the "GLOUCESTER, MASSACHUSETTS" quadrangle, scale 1:31,680, edition of 1944, reprinted 1949; and "ROCKPORT, MASSACHUSETTS" quadrangle, scale 1:31,680, edition of 1945, reprinted 1950. No outstanding changes were noted.

47. COMPARISON WITH NAUTICAL CHARTS.

Comparison has been made with USC&GS Nautical Chart 233, scale 1:10,000, published September 1942, bearing a print date of 5 May 1952; and Chart 243, scale 1:20,000, published July 1938, bearing a print date of 25 May 1953. No outstanding changes were noted.

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY.

None.

ITEMS TO BE CARRIED FORWARD.

None.

Irving I. Saperstein
I. I. Saperstein
Carto Photo Aid

APPROVED AND FORWARDED:

Ira R. Rubottom, Chief of Party

48. GEOGRAPHIC NAME LIST.

Names were taken from the GLOUCESTER, MASSACHUSETTS quadrangle and USC&GS Nautical Charts 233 and 243.

ANNISQUAM RIVER
ATLANTIC OCEAN
ATLANTIC ROAD

BASS ROCKS
BEMO LEDGE
BISKIE HEAD
BLACK BEACH
BLACK BESS POINT
BLACK BESS ROCKS
BLACK ROCK
BLYNMAN BRIDGE
BLYNMAN CANAL
BOSTON AND MAINE ~~RAILROAD~~
BRACE COVE
BRACE ROCK
BRAY SCHOOL
BRIER NECK
BUSWELL POND

CLARK POND
COAST GUARD EASTERN POINT LIGHTHOUSE ~~STATION~~
COAST GUARD GLOUCESTER L. B. STATION No. 23
CROW ISLAND

DOG BAR BREAKWATER
DOLLIVER NECK

EASTERN POINT
EAST GLOUCESTER
EAST MAIN STREET
ESSEX AVENUE

FIELD ROCKS
FORT POINT
FRESHWATER COVE

GLOUCESTER
GLOUCESTER HARBOR
GOLDSMITH POINT
GOOD HARBOR BEACH
GRAVES BEACH
GRAVES ISLAND
GRAY BEACH
GREAT EGG ROCK

48. GEOGRAPHIC NAME LIST.(CONTINUED)

HALFMOON BEACH
HARBOR COVE
HESPERUS AVENUE

INNER HARBOR

KETTLE COVE
KETTLE ISLAND

LIGHTHOUSE COVE
LITTLE EGG ROCK
LITTLE RIVER

MAGNOLIA
MAGNOLIA HARBOR
MAGNOLIA POINT
MASSACHUSETTS
MASSACHUSETTS BAY
MUSCLE POINT

NILES POND
NORMANS WOE
NORMANS WOE COVE
NORMANS WOE ROCK

OCEAN STREET
OLDHOUSE COVE

PAVILION BEACH
POPPLESTONE BEACH

ROCKY NECK

SADDLE ROCK
SALT ISLAND
SMITH COVE
SOUTHEAST HARBOR
STAGE FORT PARK
STAGE HEAD
STANWOOD POINT
STATE 121
STATE 127
STATE 127 ALT
STATE 128
SUMMER STREET
SUSAN POINT

48. GEOGRAPHIC NAME LIST.(CONTINUED

TENPOUND ISLAND
THACHER ROAD
THE RAMPARTS
TOWN HEAD

WESTERN AVENUE
WESTERN HARBOR
WEST GLOUCESTER
WHITE BEACH
WOLF HILL
WONSON COVE

Names approved 5-25-55
L. Heck

49. NOTES FOR THE HYDROGRAPHER.

The following is a list of photo-hydro stations and description of each:

7901 · Fishermans Memorial Statue
7902 · West Gable of "Tavern"
7903 · Southeast corner, platform on piles
7904 · Apex of roof, white house, red and gray roof
7905 · Westerly corner of shed on pier
7906 · Southwest corner of pier
7907 · Southeast corner of cupola
7908 · Flagpole at corner of building
7909 · Corner of building
7910 · Corner of wharf
7911 · Corner of wharf
7912 · Corner of wharf
7913 · Gable "Empire Fish Co."
7914 · Brick stack
7915 · Southeast corner of building, "Independent Fish Co."
7916 · Southeast gable, red building on wharf
7917 · Cupola at apex of roof, northerly of 24 circular brick structures
7918 · Southeast gable, building on wharf
7919 · Corner of "Esso" wharf
7920 · Silver painted metal stack
7921 · Southeast gable "Gorton" bldg.
7922 · Corner of wharf
7923 · West gable, shingled building
7924 · Corner of wharf
7925 · Metal stack
7926 · Brick stack
7927 · Corner of brick building
7928 · South gable, easterly of 2 shingled bldg.
7929 · Northwest corner, "Gorton" building
7930 · "Gorton's" metal stack
7931 · Gable, "Texaco" building
7932 · Flagpole at northwest gable of building
7933 · Southwest gable, building on wharf
7934 · Cupola
7935 · Southwest gable, building on wharf
7936 · Westerly gable, brick building
7937 · Easterly gable, large, dark red building on piles
7938 · Easterly gable, gray building on wharf
7939 · Northeast corner of pier
7940 · Square brick stack
7941 · Northwest gable, red house on piles
7942 · Northwest gable, yellow house
7943 · Westerly gable, yellow and red hotel building
7944 · Southerly gable, pink house, red roof
7945 · Center of water tank

DPP-9K-170

7946 Southeast gable, restaurant
7947 Southerly gable, brown house, yellow trim
7948 Flagpole at west gable of porch
7949 Northwest gable, 4-story yellow building on MHWL
7950 Gable of triple deck porch
7951 Northwest gable of white cottage
7952 Southwest chimney, white stucco house
7953 Most northerly chimney, brick colonial house
7954 Front chimney, brick house
7955 Tallest chimney at northwest corner of stone house
7956 Northwest corner of rock pier
7957 Front gable, dark brown house
7958 West gable, gray shingled house, green roof
7959 Front gable of tan house with 3 chimneys
7960 Front gable, "Eastern Point Yacht Club"
7961 Center of lookout tower on roof of house
7962 Gable with bay window, stone house
7963 Cupola on servant's house
7964 Southwest gable, gray house, white trim
7965 Main chimney, multi-gable, shingled house
7966 Chimney, white house, black roof (Chimney not visible on 170)
7967 Chimney at north gable, white house, green shutters
7968 North gable, red house, stone chimneys
7969 Chimney at center of ridge, stone house, slate roof
7970 North gable, brown shingled house
7971 Front gable with porch, white house, black roof
7972 East gable, 3-story shingled house, white trim, green shutters
7973 Apex pyramidal roof, gray house
7974 East gable, brown shingled house, green trim, stucco paneling on gables
7975 North gable reddish brown house
7976 Apex roof of cupola, yellow house
7977 North gable of northerly of 2 large shingled houses on hill
7978 Bath house cupola
7979 Southeast gable, "Good Harbor Beach ~~House~~ Inn"
7980 East gable, white house, gray shutters
7981 East gable, shingled house, yellow trim
7982 Apex pavilion roof
7983 Northwest gable, small shack
7984 South gable, red brown shingled house
7985 Apex roof, white house, red roof
7986 Apex roof, gray cottage
7987 Dolphin
7988 Northwest gable grandstand
7989 Square white tower, Gloucester High School
7990 Brick stack, Gloucester High School
7991 Small stone tower, with cross, rising from northwest corner of large tower on stone church
7992 South gable of building

9K-171
9K-172
9K-171
9K-175
176
9K-177
9K-159
172
9K-159

7993 · Apex of cupola roof
7994 · Center of end of wood bulkhead
7995 · Northwest corner of pier
7996 · Southwest corner of pier
7997 · Southeast gable, yellow house, red roof
7998 · West gable of house on hill
7999 · Apex of pyramidal roof, house on corner of bulkhead
79100 · Apex of pavilion roof
79101 * Apex of roof, cupola at south end of house
79106 · East gable, boat house
79107 · South gable of large building
79108 · Highest point, easterly of two boulders
79109 · Southerly gable, white building
79110 · Southeast corner of rock pier
79111 · Southeast gable of red cottage
79112 · Northwest corner of rock pier
79113 · Southeast corner of pier
79114 · Center of large boulder
79115 · Southeast corner of white house, gray roof
79116 · Westerly gable white cottage, green trim
79117 · Northwest corner of fixed pier
79118 · Northerly gable, white building
79119 · Northeast corner of bend in fixed pier
79120 · Southwest corner of rock pier
79121 · Chimney at southeast gable of white cottage
79122 · Flagpole at north gable of red house
79123 · Northwest corner of fender
79124 · End of fender
79125 · Northeast corner of pier ruins
79126 · Gable of porch roof on northeast slope of main roof
79127 · South gable, restaurant
79128 · West gable, 4-story white house, green roof
79129 · Small cupola on east side yellow house, brown trim
79130 · Center of round stone tower — twin towers on Chart 233
79131 · Apex of roof of stone tower
79132 · Northeast corner of rock wharf
79133 · North gable of small Coast Guard building
79134 · Southeast corner of wharf
79135 · Northwest gable of building
79136 · Northeast corner of pool ruins
79137 · Coast Guard cupola
79138 · Northeast gable gray house
79139 · Chimney at southeast gable, gray and green house
79140 · Southwest gable gray house
79141 · Southerly of 2 round stone towers on large stone building
79142 · Brick chimney, green house
79143 · Apex of circular roof = round house on chart 243
79144 · Apex pyramidal roof, front wing of house
79145 · Front gable, pale green asbestos shingled house

9AT-1559
9AT-1558
9AT-1557

Apparently this note should be here

* 79102, 79103, 79104, 79105 fall in T-11155 area

79146 Brick stack "Oceanside Hotel"
79147 Southwest corner of pier
79148 Easterly stone chimney, shingled house, green roof
79149 Southernmost chimney, large gray house, shingled roof
79150 Center of concrete observation tower
79151 Apex pyramidal roof, large brick building
79152 Center of large boulder
79153 Gable of dormer on front, shingled house, red roof
79154 Southeast gable shingled building
79155 Apex of southerly of 2 octagonal pointed roofs
79156 Thorwald Hotel cupola
79157 East gable house on Bond Hill
79158 East gable bridge tender's house

Because of insufficient low-water photography in the northeast portion of the manuscript, at Good Harbor Beach and Brier Rocks, the low-water line and ledge line was not delineated. This should be determined by the hydrographer.

Form 567
April 1945

PHOTOGRAMMETRIC REVIEW BRANCH

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

NONFLOATING AIDS ~~TO NAVIGATION~~ FOR CHARTS

TO BE CHARTED
~~TO BE DELETED~~ } STRIKE OUT ONE

Tampa, Florida 18 October 1954

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

The positions given have been checked after listing by F. I. Saperstein Carto Photo-Aid

Ira E. Babbitton *Chief of Party.*

STATE **MASSACHUSETTS**

CHARTING NAME	DESCRIPTION	SIGNAL NAME	POSITION LATITUDE* ° ′	LATITUDE* ″ D.M. METERS	LONGITUDE* ° ′	LONGITUDE* ″ D.P. METERS	DATUM	METHOD OF LOCATION AND SURVEY NO.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
	IPSWICH BAY - ANNISQUAM RIVER												
LIGHT 35	CHANNEL - black cylindrical structure		42 37	19.96 616	70 41	21.41 488	N.A. 1927	Rad.Plot T-9079	1953	x			233 243
LIGHT 39	CHANNEL - " " "		42 37	11.63 359	70 41	09.57 218	"	"	"	x			" "
LIGHT 46	CHANNEL - red " "		42 36	47.02 1451	70 40	46.51 1060	"	"	"	x			" "
	GLOUCESTER HARBOR												
LIGHT	GLOUCESTER BREAKWATER - white house and tower on brown square skeleton framework		42 34	57.061 1760.1	70 40	22.306 508.6	"	Triang.	1916	x	X		" " 1206
LIGHT	THACHER ISLAND - brown conical tower		42 36	06.395 197.3	70 39	57.805 1317.7	"	"	1902	x	X		" " 1206
DAYBEACON 12	BLACK ROCK - red; oblong cage on iron spindle		42 36	21.23 655	70 39	44.92 1024	"	Sextant Fix T-9079	1953	x			" "
	GLOUCESTER INNER HARBOR												
DAYBEACON	Red;ball on spindle;granite base		42 36	46.63 1445	70 39	19.48 444	"	"	"	x			" "
	SOUTHEAST HARBOR												
DAYBEACON	GREEN ROCK - red;circular cage on iron spindle		42 36	09.17 283	70 39	45.62 1040	"	"	1953	x			" "
													6

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and *nonfloating aids* to navigation, if redetermined, shall be reported on this form. The data should be considered for the charts of the area and not by

Form 567
April 1945

PHOTOGRAMMETRIC REVIEW BRANCH

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

TO BE CHARTED / ~~REVISED~~ } STRIKE OUT ONE

Tampa, Florida, 18 October, 1954

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

The positions given have been checked after listing by I. I. Saperstein, Carto Photo Aid

Ira R. Abbotton, *Chief of Party.*

STATE MASSACHUSETTS

CHARTING NAME	DESCRIPTION	SIGNAL NAME	POSITION LATITUDE* ° ′	LATITUDE* ″ D.N. METERS	LONGITUDE* ° ′	LONGITUDE* ″ D.P. METERS	DATUM	METHOD OF LOCATION AND SURVEY No.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
	SEACOAST												
LIGHT	EASTERN POINT - white conical tower, covered way to dwelling		42 24	48.549 1498.0	70 39	53.963 1230.1	N.A. 1927	Trimg.	1902	x	X		233 1206 243
													20

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and *nonfloating aids* to navigation, if redetermined, shall be reported on this form. The data should be considered for the charts of the area and not by

Form T-2 21

PHOTOGRAMMETRIC OFFICE REVIEW

T- 9079

1. Projection and grids J.G. 2. Title J.G. 3. Manuscript numbers J.G. 4. Manuscript size J.G.

4a. Classification label unclassified

CONTROL STATIONS

5. Horizontal control stations of third-order or higher accuracy M.M.S. 6. Recoverable horizontal stations of less than third-order accuracy (topographic stations) XX 7. Photo hydro stations J.G. 8. Bench marks J.G.
9. Plotting of sextant fixes J.G. 10. Photogrammetric plot report J.G. 11. Detail points J.G.

ALONGSHORE AREAS

(Nautical Chart Data)

12. Shoreline J.G. 13. Low-water line J.G. 14. Rocks, shoals, etc. J.G. 15. Bridges J.G. 16. Aids to navigation J.G. 17. Landmarks XX 18. Other alongshore physical features J.G. 19. Other alongshore cultural features J.G.

PHYSICAL FEATURES

20. Water features J.G. 21. Natural ground cover J.G. 22. Planetable contours XX 23. Stereoscopic instrument contours XX 24. Contours in general XX 25. Spot elevations XX 26. Other physical features J.G.

CULTURAL FEATURES

27. Roads J.G. 28. Buildings J.G. 29. Railroads J.G. 30. Other cultural features J.G.

BOUNDARIES

31. Boundary lines XX 32. Public land lines XX

MISCELLANEOUS

33. Geographic names J.G. 34. Junctions J.G. 35. Legibility of the manuscript J.G. 36. Discrepancy overlay XX 37. Descriptive Report J.G. 38. Field inspection photographs J.G. 39. Forms J.G.
40. Jesse A. Giles (Reviewer) William A. Rasure (Supervisor, Review Section or Unit)

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 _____ Supervisor _____

43. Remarks:

M-2623-12

SEXTANT FIXES TO LOCATE DAYBEACONS IN GLOUCESTER HARBOR

SHEET 9079

FIVEPOUND ISLAND DAYBEACON

TEN POUND ISLAND LIGHTHOUSE, 1902 to GLOUCESTER CITY HALL, 1902	---	64	38.5
GLOUCESTER CITY HALL, 1902 to GAS, 1928	---	20	32.2
GAS, 1928 to PORTUGUESE CHURCH, EAST TOWER, 1916	---	37	30.4
Horizon closure			
PORTUGUESE CHURCH, EAST TOWER to corner of building	---	86	07.9
Corner of building to chimney	---	88	12.9
Chimney to TENPOUND ISLAND LIGHTHOUSE, 1902	---	62	58.9
		360	00.8

GREENROCK DAYBEACON

EASTERN POINT RADIO MAST, 1940(MGS) to DOG BAR LIGHT, 1916	---	16	20.6
DOG BAR LIGHT, 1916 to LEE, 1928	---	101	33.6
LEE, 1928 to GLOUCESTER CITY HALL, 1902	---	55	11.9
GLOUCESTER CITY HALL, 1902 to PORTUGUESE CHURCH, EAST TOWER	---	17	35.0
Horizon closure			
PORTUGUESE CHURCH, EAST TOWER, 1916 to gable	---	62	42.3
Gable to EASTERN POINT RADIO MAST, 1940 (MGS)	---	106	36.6
		360	00.0

BLACK ROCK DAYBEACON 12

EASTERN POINT RADIO MAST, 1940(MGS) to TENPOUND ISLAND LIGHTHOUSE		28	45.3
TENPOUND ISLAND LIGHTHOUSE, 1902 to LEE, 1928	---	82	10.7
LEE, 1928 to GLOUCESTER CITY HALL, 1902	---	60	07.5
GLOUCESTER CITY HALL, 1902 to PORTUGUESE CHURCH, EAST TOWER	---	23	25.0
Horizon closure			
PORTUGUESE CHURCH EASTTOWER TO flagpole	---	80.	57.5
Flagpole to EASTERN POINT RADIO MAST, 1940 (MGS)	---	84.	36.6
		360.	02.6

Dolphin opposite "Fisherman's Memorial"

GLOUCESTER CITY HALL, 1902 to GEN, 1928	---	40.	05.6
GEN, 1928 to TENPOUND ISLAND LIGHTHOUSE, 1902	---	67	39.3
TENPOUND ISLAND LIGHTHOUSE, 1902 to EASTERN POINT RADIO MAST	---	15	18.0
EASTERN POINT RADIO MAST to DOG BAR LIGHT, 1916	---	11	56.8
Horizon closure			
DOG BAR LIGHT, 1916 to gable	---	94	55.3
Gable to GLOUCESTER CITY HALL, 1902	---	130	08.9
		360	03.9

TIDE COMPUTATION

8.4 3 / 7.7 6

PROJECT NO. Ph- PH-114BT- 9079

Time and date of exposure 0811 22 Apr 1953 Reference station BOSTON Mean range 8.7

Date of field inspection — Subordinate station GLOUCESTER Ratio of ranges 0.9

	Time h.	Time m.
High tide	5	49
Low tide	12	16
Duration of rise or fall	6	27

	Height feet	Height x Ratio of ranges
High tide	8.4	7.6
Low tide	1.0	0.9
Range of tide		6.7

	Time h.	Time m.
High tide at Ref. Sta.	5	54
Time difference	-	05
Corrected time at Subordinate station	5	49

	Time h.	Time m.
Low tide at Ref. Sta.	12	21
Time difference	-	05
Corrected time at Subordinate station	12	16

	h. m.		feet		feet	Photo. No.
Time H. T. ~~or L. T.~~	05 49	Ht. H. T. ~~or L. T.~~	7.6	Feature bares		
Required time	08 11	Tabular correction	2.0	Stage of tide above MLW		
Interval	02 22	Stage of tide above MLW	5.6	Feature above MLW		
Time H. T. or L. T.		Ht. H. T. or L. T.		Feature bares		
Required time		Tabular correction		Stage of tide above MLW		
Interval		Stage of tide above MLW		Feature above MLW		
Time H. T. or L. T.		Ht. H. T. or L. T.		Feature bares		
Required time		Tabular correction		Stage of tide above MLW		
Interval		Stage of tide above MLW		Feature above MLW		
Time H. T. or L. T.		Ht. H. T. or L. T.		Feature bares		
Required time		Tabular correction		Stage of tide above MLW		
Interval		Stage of tide above MLW		Feature above MLW		
Time H. T. or L. T.		Ht. H. T. or L. T.		Feature bares		
Required time		Tabular correction		Stage of tide above MLW		
Interval		Stage of tide above MLW		Feature above MLW		
Time H. T. or L. T.		Ht. H. T. or L. T.		Feature bares		
Required time		Tabular correction		Stage of tide above MLW		
Interval		Stage of tide above MLW		Feature above MLW		

M-2617-12

Computed by 115 Checked by R [illegible]

TIDE COMPUTATION

9.7
.9
8.73

PROJECT NO. Ph- 114 B T- 9079

Time and date of exposure 13:30 26 Aug 1952 (mean of photos)   Reference station BOSTON   Mean range 8.7

Date of field inspection July-Oct 1953   Subordinate station GLOUCESTER   Ratio of ranges 0.9

	Time h.	Time m.
High tide	14	38
Low tide	8	29
Duration of rise or fall	6	09

	Height feet	Height x Ratio of ranges
High tide	9.7	8.7
Low tide	0.7	0.6
Range of tide		8.1

	Time h.	Time m.
High tide at Ref. Sta.	14	43
Time difference	–	05
Corrected time at Subordinate station	14	38

	Time h.	Time m.
Low tide at Ref. Sta.	8	34
Time difference	–	05
Corrected time at Subordinate station	8	29

	h. m.		feet		feet	Photo. No.
Time H. T. ~~or L. T.~~	14 38	Ht. H. T. ~~or L. T.~~	8.7	Feature bares		Mean of Photos
Required time	13 30	Tabular correction	0.8	Stage of tide above MLW		
Interval	1 08	Stage of tide above MLW	7.9	Feature above MLW		
Time H. T. or L. T.		Ht. H. T. or L. T.		Feature bares		
Required time		Tabular correction		Stage of tide above MLW		
Interval		Stage of tide above MLW		Feature above MLW		
Time H. T. or L. T.		Ht. H. T. or L. T.		Feature bares		
Required time		Tabular correction		Stage of tide above MLW		
Interval		Stage of tide above MLW		Feature above MLW		
Time H. T. or L. T.		Ht. H. T. or L. T.		Feature bares		
Required time		Tabular correction		Stage of tide above MLW		
Interval		Stage of tide above MLW		Feature above MLW		
Time H. T. or L. T.		Ht. H. T. or L. T.		Feature bares		
Required time		Tabular correction		Stage of tide above MLW		
Interval		Stage of tide above MLW		Feature above MLW		
Time H. T. or L. T.		Ht. H. T. or L. T.		Feature bares		
Required time		Tabular correction		Stage of tide above MLW		
Interval		Stage of tide above MLW		Feature above MLW		

M-2617-12

Computed by 115   Checked by R. [signature]

TIDE COMPUTATION

PROJECT NO. Ph- 114B T- 9079

Time and date of exposure ______ Reference station BOSTON Mean range 8.7

Date of field inspection 30 Sept 1953 1045 Subordinate station GLOUCESTER Ratio of ranges 0.9

Ht. of HW = -0.8

	Time h.	Time m.
High tide	16	58
Low tide	10	41
Duration of rise or fall	6	17

	Height feet	Height x Ratio of ranges
High tide	9.3	8.5
Low tide	1.4	1.3
Range of tide		7.2

	Time h.	Time m.
High tide at Ref. Sta.	17	03
Time difference	–	05
Corrected time at Subordinate station	16	58

	Time h.	Time m.
Low tide at Ref. Sta.	10	46
Time difference	–	05
Corrected time at Subordinate station	10	41

	h. m.		feet		feet	Photo. No.
Time ~~H. T. or~~ L. T. Required time Interval	10 41 10 45 04	Ht. ~~H. T. or~~ L. T. Tabular correction Stage of tide above MLW	1.3 0.0 1.3	Feature bares BRIDGE Stage of tide above MLW Feature above ~~MLW~~ MHW	15.0 1.3 7.6	DPP-9K-159
Time H. T. or L. T. Required time Interval		Ht. H. T. or L. T. Tabular correction Stage of tide above MLW		Feature bares Stage of tide above MLW Feature above MLW		
Time H. T. or L. T. Required time Interval		Ht. H. T. or L. T. Tabular correction Stage of tide above MLW		Feature bares Stage of tide above MLW Feature above MLW		
Time H. T. or L. T. Required time Interval		Ht. H. T. or L. T. Tabular correction Stage of tide above MLW		Feature bares Stage of tide above MLW Feature above MLW		
Time H. T. or L. T. Required time Interval		Ht. H. T. or L. T. Tabular correction Stage of tide above MLW		Feature bares Stage of tide above MLW Feature above MLW		
Time H. T. or L. T. Required time Interval		Ht. H. T. or L. T. Tabular correction Stage of tide above MLW		Feature bares Stage of tide above MLW Feature above MLW		

M-2617-12

Computed by 115 Checked by [signature]

1300
11 22
1 38

TIDE COMPUTATION

1.6
.9
1.44

PROJECT NO. Ph- 114B T- 9079

Time and date of exposure ________ Reference station BOSTON Mean range 8.7

Date of field inspection 17 Sept 1953 1300 Subordinate station GLOUCESTER Ratio of ranges 0.9

H. of HW = -0.8

	Time h.	Time m.
High tide	17	34
Low tide	11	22
Duration of rise or fall	6	12

	Height feet	Height x Ratio of ranges
High tide	9.2	8.4
Low tide	1.6	1.4
Range of tide		7.0

	Time h.	Time m.
High tide at Ref. Sta.	17	39
Time difference	-	05
Corrected time at Subordinate station	17	34

	Time h.	Time m.
Low tide at Ref. Sta.	11	27
Time difference	-	05
Corrected time at Subordinate station	11	22

	h. m.		feet		feet	Photo. No.
Time ~~H. T. or~~ L. T.	11 22	Ht. ~~H. T. or~~ L. T.	1.4	Feature bares Bridge	24.0	DPP-9K-159
Required time	13 00	Tabular correction	1.2	Stage of tide above MLW	2.6	
Interval	1 38	Stage of tide above MLW	2.6	Feature above ~~MLW~~ MHW	17.9	
Time H. T. or L. T.		Ht. H. T. or L. T.		Feature bares		
Required time		Tabular correction		Stage of tide above MLW		
Interval		Stage of tide above MLW		Feature above MLW		
Time H. T. or L. T.		Ht. H. T. or L. T.		Feature bares		
Required time		Tabular correction		Stage of tide above MLW		
Interval		Stage of tide above MLW		Feature above MLW		
Time H. T. or L. T.		Ht. H. T. or L. T.		Feature bares		
Required time		Tabular correction		Stage of tide above MLW		
Interval		Stage of tide above MLW		Feature above MLW		
Time H. T. or L. T.		Ht. H. T. or L. T.		Feature bares		
Required time		Tabular correction		Stage of tide above MLW		
Interval		Stage of tide above MLW		Feature above MLW		
Time H. T. or L. T.		Ht. H. T. or L. T.		Feature bares		
Required time		Tabular correction		Stage of tide above MLW		
Interval		Stage of tide above MLW		Feature above MLW		

M-2617-12

Computed by HS Checked by [signature]

TIDE COMPUTATION

1.3 / .9 / 1.17

PROJECT NO. Ph- 114B T- 9079

Time and date of exposure _____ Reference station BOSTON Mean range 8.7

Date of field inspection 18 Sept 1953 1500 EDST Subordinate station GLOUCESTER Ratio of ranges 0.9 Height of HW - 0.8

	Time h.	m.
High tide	18	36
Low tide	12	24
Duration of rise or fall	6	12

	Height feet	Height x Ratio of ranges
High tide	9.5	8.7
Low tide	1.3	1.2
Range of tide		7.5

	Time h.	m.
High tide at Ref. Sta.	18	41
Time difference	–	05
Corrected time at Subordinate station	18	36

	Time h.	m.
Low tide at Ref. Sta.	12	29
Time difference	–	05
Corrected time at Subordinate station	12	24

	h. m.		feet		feet	Photo. No.
Time ~~H. T. or~~ L. T.	12 24	Ht. ~~H. T. or~~ L. T.	1.2	Feature bares Rock	3.	
Required time	14 00	Tabular correction	1.2	Stage of tide above MLW	2	DPP-9K-170
Interval	1 36	Stage of tide above MLW	2.4	Feature above MLW	5	
Time H. T. or L. T.	"	Ht. H. T. or L. T.	"	Feature bares Rock	2	"
Required time		Tabular correction		Stage of tide above MLW	2	
Interval		Stage of tide above MLW		Feature above MLW	4	
Time H. T. or L. T.	"	Ht. H. T. or L. T.	"	Feature bares Rock	1	DPP-9K-171
Required time		Tabular correction		Stage of tide above MLW	2	
Interval		Stage of tide above MLW		Feature above MLW	3	
Time H. T. or L. T.		Ht. H. T. or L. T.		Feature bares		
Required time		Tabular correction		Stage of tide above MLW		
Interval		Stage of tide above MLW		Feature above MLW		
Time H. T. or L. T.		Ht. H. T. or L. T.		Feature bares		
Required time		Tabular correction		Stage of tide above MLW		
Interval		Stage of tide above MLW		Feature above MLW		
Time H. T. or L. T.		Ht. H. T. or L. T.		Feature bares		
Required time		Tabular correction		Stage of tide above MLW		
Interval		Stage of tide above MLW		Feature above MLW		

M-2617-12

Computed by 115 Checked by R Wasson

TIDE COMPUTATION

1.5 / 1.9 / 1.35 ✓

PROJECT NO. Ph- 114B T- 9079

Time and date of exposure _____ Reference station BOSTON Mean range 8.7

Date of field inspection 3 Sept 1953 1400 EDST Subordinate station GLOUCESTER Ratio of ranges 0.9
HT. of HW -0.8

	Time h.	m.
High tide	7	11
Low tide	13	11
Duration of rise or fall	6	00 ✓

	Height feet	Height x Ratio of ranges
High tide	8.1	7.3
Low tide	1.5	1.4
Range of tide		5.9 ✓

	Time h.	m.
High tide at Ref. Sta.	7	16
Time difference	-	05
Corrected time at Subordinate station	7	11 ✓

	Time h.	m.
Low tide at Ref. Sta.	13	16
Time difference	-	05
Corrected time at Subordinate station	13	11 ✓

	h. m.		feet		feet	Photo. No.
Time ~~H. T. or~~ L. T.	13 11	Ht. ~~H. T. or~~ L. T.	1.4	Feature bares Rock	4	DPP-9K-158
Required time	13 00	Tabular correction	0.0	Stage of tide above MLW	1	
Interval	11	Stage of tide above MLW	1.4	Feature above MLW	5	
Time H. T. or L. T.		Ht. H. T. or L. T.		Feature bares Rock	3	"
Required time	"	Tabular correction	"	Stage of tide above MLW	1	
Interval		Stage of tide above MLW		Feature above MLW	4	
Time H. T. or L. T.		Ht. H. T. or L. T.		Feature bares Rock	2	"
Required time	"	Tabular correction	"	Stage of tide above MLW	1	
Interval		Stage of tide above MLW		Feature above MLW	3	
Time H. T. or L. T.		Ht. H. T. or L. T.		Feature bares		
Required time		Tabular correction		Stage of tide above MLW		
Interval		Stage of tide above MLW		Feature above MLW		
Time H. T. or L. T.		Ht. H. T. or L. T.		Feature bares		
Required time		Tabular correction		Stage of tide above MLW		
Interval		Stage of tide above MLW		Feature above MLW		
Time H. T. or L. T.		Ht. H. T. or L. T.		Feature bares		
Required time		Tabular correction		Stage of tide above MLW		
Interval		Stage of tide above MLW		Feature above MLW		

M-2617-12

Computed by WS Checked by RD

Review Report
Shoreline Map T-9079
May 1955

62. Comparison with Registered Surveys:

T-397	1:10,000	1851	Cape Ann, Gloucester Harbor
T-397a	"	1910	
T-4393	1:5,000	1928	Gloucester and Annisquam River
T-4396	"	"	Gloucester Outer Harbor

Because of numerous cultural changes and the more detailed delineation of the MHWL, T-9079 supersedes the older surveys for charting purposes.

63. Comparison with Maps of Other Agencies:

USE	Gloucester, Mass.	1:25,000	1950
USE	Rockport, Mass.	1:25,000	1949

64. Comparison with Contemporary Hydrographic Surveys:

No hydrographic work has been done in this part of project Ph-114 since H-4849, 1:5,000, 1928.

65. Comparison with Nautical Charts:

233	1:10,000	Sept. 1942, Corr. May, 1952
243	1:20,000	July 1938, Corr. July, 1951

Charted but not mapped:

1. Pipeline area Gloucester, Western Harbor
2. Cable area by Dog Bar Breakwater
3. Hulks at East Gloucester

None of these were noted by the field inspector and the photographs give no clue to their existence.

Bridges:

The horizontal clearance for both the railroad bridge over Annisquam River and Blynman Canal are charted as 40 ft. but field inspection indicated 39 ft. The vertical clearance for the railroad bridge is charted 16½ ft., but is mapped as 18 ft. from data furnished by inspection. The vertical clearance for Blynman Canal bridge is mapped as charted.

The rock symbol was used for only a short section of the bluff at Brier Neck, though the bluffs for the entire area are steep--to vertical from ten to twenty feet high, in general.

Junctions:

The manuscripts for T-11155 and T-11156 were not available for comparison, so that it was necessary to use the black and white prints. The marginal detail was in agreement except for the MHWL on T-11156, which needs to be adjusted to conform to T-9079.

Accuracy:

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

Reviewed by:

Lena T. Stevens
Lena T. Stevens

APPROVED:

L C Lundy
Chief, Review Section
Photogrammetry Division

Mary B Ruckett
Chief, Nautical Chart Branch
Charts Division

H W Seaman
Chief, Photogrammetry Division
27 Nov 54

J. Bowie
Chief, Coastal Surveys Division

Chart 243 Minor shoreline changes 1/31/56 F.B.E.
Chart 1207 Exam. - No corr. 7/10/56 G.F.J. Not applied.

NAUTICAL CHARTS BRANCH

SURVEY NO. T-9079

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
8-15-72	243	Jagl Eberwein	~~Before~~ After Verification and Review No correction.
			superseded by BP 83476 (T-12964), BP84036 (12967) & 84035 (T-12966).
9-6-72	233	J. Bailey	~~Before~~ After Verification and Review No correction
			Superseded by T-12966 and T-12967
5-2-73	1207	Lyle R. Everhart	~~Before~~ After Verification and Review - SUPERCEDED BY NO CORRECTION - CHECKED ADEQUATELY APP'D.
			BP-83476 (T-12964), BP-84035 (T-12966), BP-84036 (T-12967)
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review

M-2168-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.