

8769a  
8769b

Diag. Cht. No. 295-2

Form 504	
U. S. COAST AND GEODETIC SURVEY DEPARTMENT OF COMMERCE	
DESCRIPTIVE REPORT	
Type of Survey	PHOTOGRAMMETRIC SHORELINE
Field No.	PH-7(16)E
Office No.	T-8769
LOCALITY	
State	NEW JERSEY AND PENNSYLVANIA
General locality	DELAWARE RIVER
Locality	MANTUA CREEK TO BIG TIMBER CREEK
1946	
CHIEF OF PARTY E. L. Jones, Chief of Party. T. B. Reed, Baltimore Photogrammetric Office	
LIBRARY & ARCHIVES	
DATE	June 25, 1952

B-1870-1 (1)

8769a  
8769b

DATA RECORD

T-8769

Quadrangle (II): Mantua Creek - Big Timber Creek Project No. (II): PH-7(46)E

Field Office: Camden, N.J.

Chief of Party: E.L. Jones

Compilation Office:  
Baltimore, Md.

Chief of Party:  
T.B. Reed

Instructions dated (II III):  
25 March 1946 + 19 July 1946  
14 June 1946

Copy filed in Descriptive  
Report No. T- (VI)

Completed survey received in office:

Reported to Nautical Chart Section:

Reviewed: 11-27-49

Applied to chart No.

Date:

Redrafting Completed: *Balt. Office - Verified: Clipping - S. Steifler 7/5 51*

Registered: 16 January 1952

Published: *Proof Ed. - S. Steifler 9/4 51*

Compilation Scale: 1:10,000

Published Scale:

Scale Factor (III): 1.000

Geographic Datum (III): N.A. 1927

Datum Plane (III): *M.H.W.*  
~~M.S.L.~~

Reference Station (III): RED, 1925

Lat.: 39° 52' 25.481" (785.9m)

Long.: 75° 11' 13.915" (330.7m)

Adjusted  
~~Unadjusted~~

State Plane Coordinates (VI):

*Lambert*  
*Pennsylvania South Grid*  
*New Jersey Transverse Mercator Grid*

X =

Y =

Military Grid Zone (VI)

PHOTOGRAPHS (III)

Number	Date	75th meridian Time	Scale	Stage of Tide
1637 to 1643 incl.	3-3-46	1206	1:10,000	5.6' above MLW
1681 to 1688 incl.	3-3-46	1228	1:10,000	6.0' " "
1691 to 1697 "	3-3-46	1247	1:10,000	6.1' " "
1711 to 1715 "	3-3-46	1320	1:10,000	6.1' " "
1731 to 1733 "	3-3-46	1343	1:10,000	5.8' " "
1861	3-10-46	1430	1:10,000	0.7' below MLW
1873 to 1876 "	3-10-46	1442	1:10,000	0.6' " "

Tide from (III): Actual tide observation at Phila. corrected to Gloucester, to Billingsport.

Mean Range: 5.3' Spring Range: 5.7'

Camera: (Kind or source) U.S.Coast and Geodetic Survey single lens camera. Wide angle, type "D". Focal length 12".

Field Inspection by: date: Aug-Nov.1946.

See page No. 1 of Field Report Survey T-8750

Field Edit by: date:

Date of Mean High-Water Line Location (III): Same as date of photographs supplemented with field inspection during 26 to 30 August 1946.

Projection and Grids ruled by (III) T.L.J. date: 6 Oct. 1947

" " " checked by: T.L.J. date: 6 Oct. 1947

Control plotted by: Joseph Steinberg date: 20 Oct. 1947

Control checked by: Frank J. Tarcza date: 22 Oct. 1947

Radial Plot by: Frank J. Tarcza date: 11 Feb. 1948

Detailed by: John C. Richter date: 18 Feb. 1948 to 25 March 1948

Reviewed in compilation office by: J.W.Vonasek date: 26 Mar to 6 Apr 1948

Elevations on ~~Field Edit Sheet~~ <sup>Map manuscript</sup> checked by: None date:

STATISTICS (III)

Land Area (Sq. Statute Miles): 14

Shoreline (More than 200 meters to opposite shore): 9 statute miles

Shoreline (Less than 200 meters to opposite shore): 26 statute miles

Number of Recoverable Topographic Stations established: 16

Number of ~~Temporary Topographic Stations~~ <sup>photo hydro points</sup> located by radial plot: 2

Leveling (to control contours) - miles:

Roman numerals indicate whether the item is to be entered by, (II) Field Party, (III) Compilation Party, or, (VI) the Washington Office.

When entering names of personnel on this record give the surname and initials (not initials only).

Remarks:

Summary to Accompany  
Shoreline Survey T-8769

This is one of a series of 24 Shoreline Surveys in Project Ph-7(46)\* covering both sides of the Delaware River from Trenton, New Jersey and extending southward to lower Delaware Bay.

These Shoreline Surveys at a scale of 1:10,000 are to furnish material for revision of the nautical charts for this area, and for shoreline data on a series of 18 topographic maps at a scale of 1:20,000 which are to be published by the U.S. Geological Survey as standard topographic quadrangles at 1:24,000.

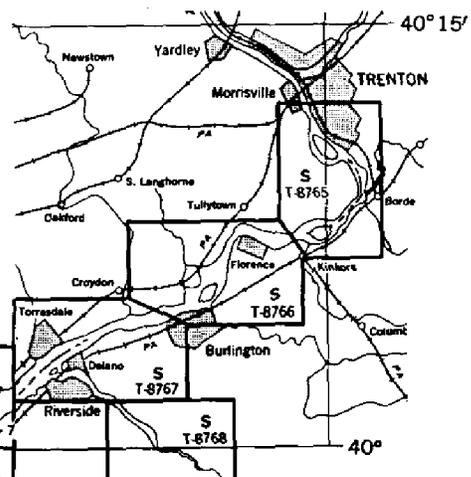
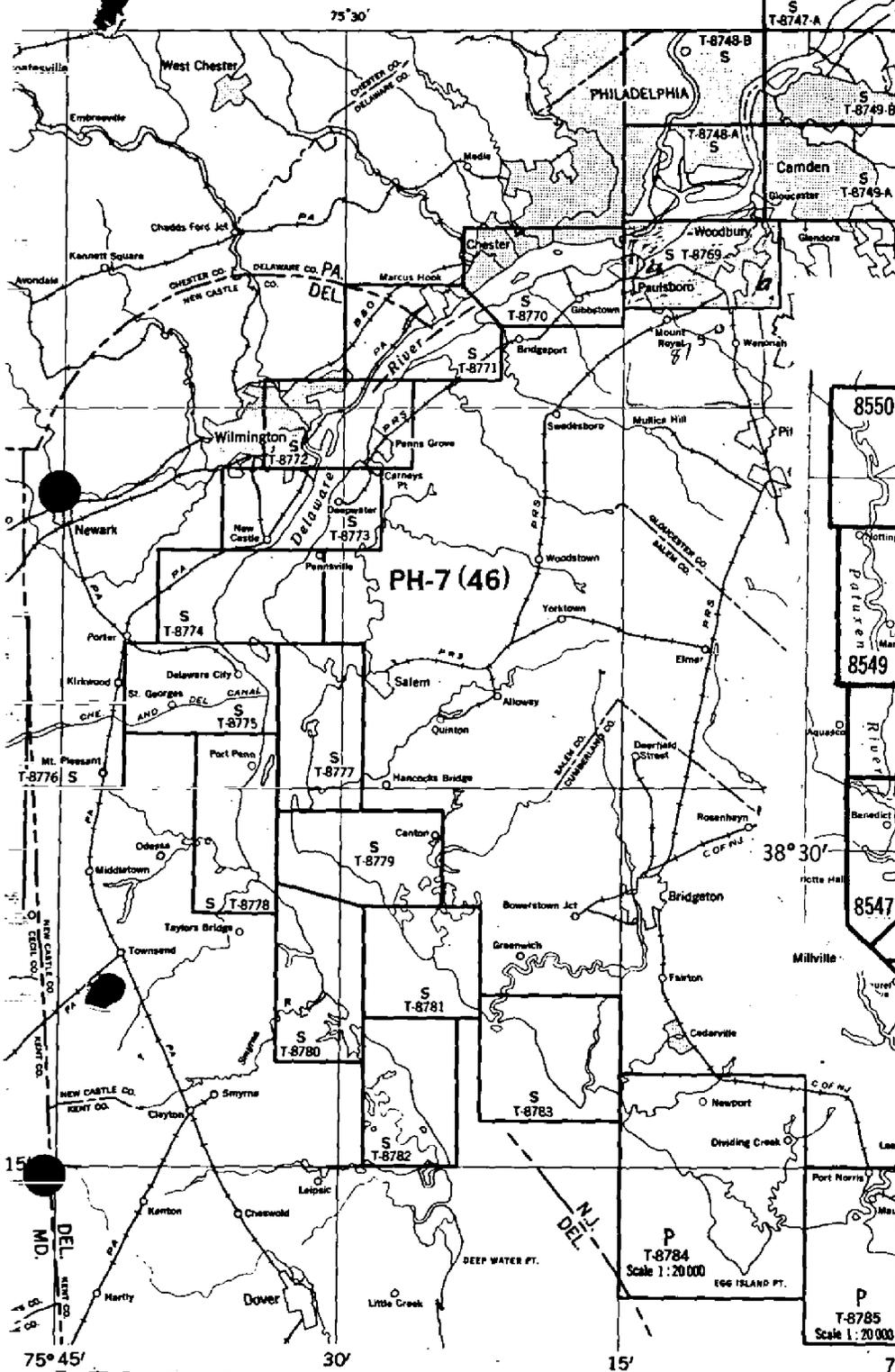
\* Project Ph-7(46)E comprises 6 shoreline surveys of which this one is a part. ETR

# PLANIMETRIC AND SHORELINE MAPPING PROJECTS

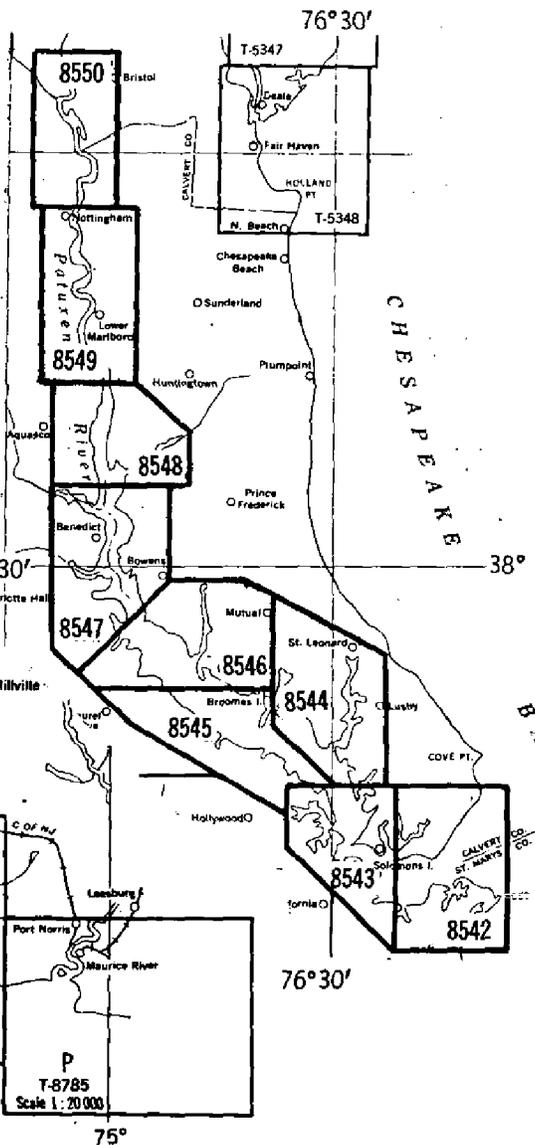
PH-7 (46) CS-307 (43)

## PH-7 (46) DEL - N.J. - PA., Delaware River

(P) Indicates Planimetric Survey  
(S) Indicates Shoreline Survey



## CS-307 (43) MARYLAND, Patuxent River PLANIMETRIC





FIELD REPORT

The area of this shoreline survey is in the area covered by Topographic Survey No. T-8750. For field data covering Survey No. T-8769 refer to the field report of the above mentioned Topographic Survey.

## RADIAL PLOT REPORT

PROJECT NO. PH-7(46) E

SURVEY NO. T-8769

### 1. GENERAL DESCRIPTION

Survey No. T-8769 is one of 6 shoreline manuscripts in the area of sub-project No. Ph-7(46) E located along the Delaware River between Billingsport and Woodbury Creek. This survey will be compiled in accordance with instructions dated 25 March 1946 and 19 July 1946 by graphic photogrammetric methods.

### 2. LAYOUT

A sketch showing the layout of the map, horizontal ground control and photograph centers is attached to this report.

### 3. PHOTOGRAPHS

The photographs used in this radial plot were taken with the U. S. Coast and Geodetic Survey, wide angle, type D single lens camera, focal length 12 inches, at a contact scale of 1:16,000 and ratioed to a scale of 1:10,000.

### 4. MANUSCRIPTS

The projection sheet for this survey was ruled with polyconic projections, scale 1:10,000, New Jersey State Grid and Pennsylvania South State Grid (5000 foot intervals). The projection and state grid lines were ruled on acetate with the ruling machine and checked in the Washington Office.

### 5. CONTROL

The field inspection party recovered 17 previously established horizontal control stations within the area of this plot, 11 of which were identified. In addition; the field party recovered 9 horizontal control stations just outside the detail limits of this survey, 5 of which were identified. Two previously established horizontal control stations within the area were not recovered. No new horizontal control stations were established.

### 6. FIELD INSPECTION

The field identification of the horizontal control was very good inasmuch as 14 of the 16 stations identified by the field party could be "held to" tangentially or better in the radial plot.

## 7. SUMMARY

A few additional control stations located between the existing control would have been desirable since the plot was run with vinylite templets of single lens photographs. However, it is believed that the plot is well within the desired accuracy.

37 U. S. Coast and Geodetic Survey and New Jersey State Geodetic Survey monuments were identified on nine lens photographs, scale 1:20,000, for use as vertical control only. Coordinate positions being available for these stations, they were plotted on the projection sheet but not used to control the radial plot since it is believed that they were not identified with the accuracy required for horizontal control.

The number and distribution of photographs were good.

### DETAILS OF RADIAL PLOTTING

8. The scale of the projection sheet was determined in the Washington Office. The plot was made with vinylite templets.

9. In order to supplement the horizontal control plotted on the projection sheet and to insure an accurate junction between this radial plot and the radial plot previously run on Survey No. T-8770 to the west, all pass points, horizontal control and photo centers established on Survey No. T-8770 were transferred to a base sheet and the base sheets for T-8770 and T-8769 were then joined by carefully matching common New Jersey State Grid lines. In addition, several pass points previously established on the 1:20,000 radial plot for Surveys Nos. T-8747 to T-8750 that were common to Surveys Nos. T-8750 and T-8769 were transferred graphically to Survey No. T-8769. Also several previously established horizontal control stations just outside the area of Survey No. T-8769 to the northeast and south were plotted on the margin of the manuscript.

10. Three horizontal control stations, which were recovered but not identified by the field party, were identified in the compilation office and used in the radial plot. Triangulation station HOG ISLAND WATER TANK, 1926, was reported as destroyed; however, the base of the "tank" was identified in the compilation office and used in the plot. In addition, a control station "Point G", established by the airport survey was identified in the Washington Office and was plotted just outside the limits of the survey and also used in the plot. See the "List of Control" attached to this report for data relative to stations recovered, identified by the field party, and identified in the compilation office.

11. The radial plot was then made by laying the vinylite templets overlapping onto Survey No. T-8770 first and then all others in the order in which they were controlled, in order to establish radially plotted positions of pass points for use in the uncontrolled areas. Satisfactory results were obtained.

12. The projection sheet was then oriented over the templates as laid on the base sheets and all photograph centers and pass points were pricked on the projection sheet.
13. The positions of all pass points and photograph centers are within 0.5 millimeters of their correct geographic positions.
14. The following control stations could not be held to in the radial plot:  
EAST HORSESHOE FRONT RANGE LIGHT, <sup>1890 ENR</sup> 1925  
EAST HORSESHOE REAR RANGE LIGHT, 1925

See paragraph No. 6 of Radial Plot Report for Surveys Nos. T-8747 and T-8748 for a discussion of these two stations. *Also item 69, This report.*

All other horizontal stations identified by the field party, in the Washington Office or in this compilation office were "held to" tangentially or better.

REMARKS

15. The identification of the horizontal control was very good, However, the identification of some of the U.S.C.&G.S. and New Jersey Geodetic Survey monuments with the accuracy of horizontal control would have been desirable.

None of the U.S.C. & G.S. and N.J. Geodetic Survey monuments were used as horizontal control since they were identified for use as vertical control only.

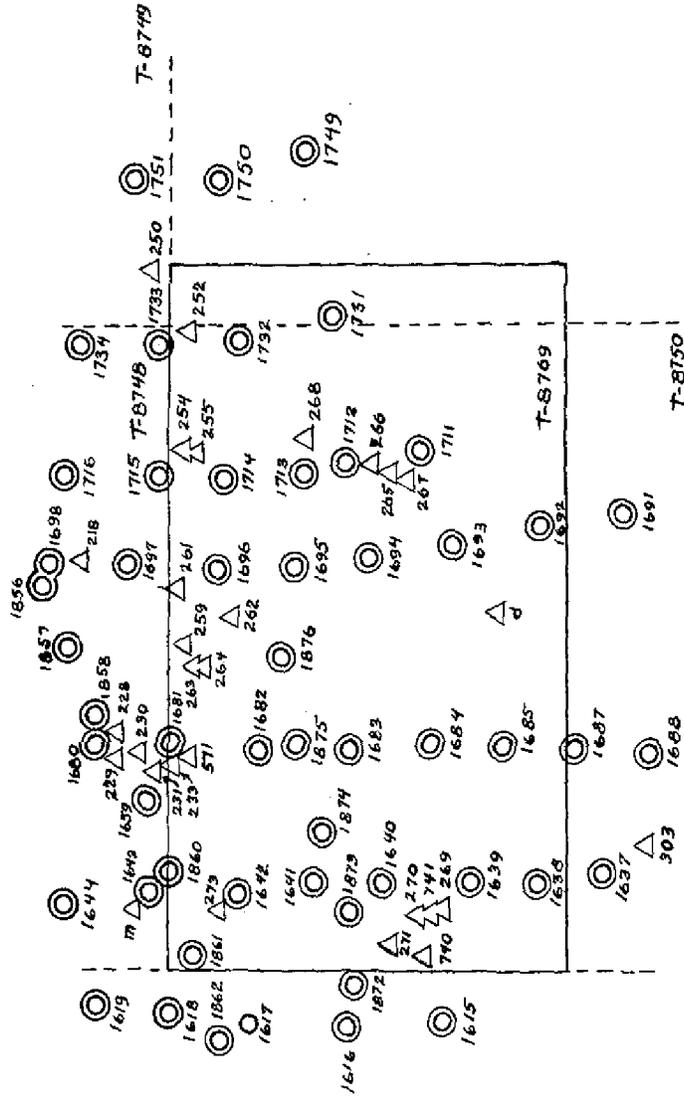
Respectfully submitted  
13 February 1948

*Harry R. Rudolph*  
Supervisor

Approved and forwarded  
20 February 1948

*J. W. B. [Signature]*  
Officer in Charge  
Baltimore Photogrammetric Office

INDEX NO.	NAME OF STATION	RECOVERED	PRICKED	IDENTIFICATION
218	PHILA. NAVY YARD POWER PLANT WATER TANK, 1933	Yes	Direct	Positive
218	PHILA. NAVY YARD POWER PLANT STACK, 1933	Yes	No	In comp. office.
228	W. HORSESHOE FRONT RANGE, 1925	Yes	Direct	Positive
229	W. HORSESHOE REAR RANGE, 1925	Yes	Direct	Positive
230	FORT MIFFLIN FLAGPOLE, 1925	Yes	No	None
231	FORT MIFFLIN GRAY WATER TANK, 1925	Yes	Direct	Positive
233	FORT, 1925	Yes	No	None
250	BROOKLAWN MUNICIPAL WATER TANK, 1933	Yes	No	In comp. office
252	WESTVILLE MUNICIPAL WATER TANK, 1933	Yes	Direct	Positive
254	E. HORSESHOE FRONT RANGE LIGHT, 1925	Yes	Direct	Positive
			(Light moved)	
			(Radially plotted)	
255	E. HORSESHOE REAR RANGE LIGHT, 1925	Yes	Direct	Positive
261	BELLEVUE HOTEL RM., 1933	Yes	No	None
262	NATIONAL PARK MUNICIPAL STANDPIPE, 1933	Yes	Direct	Positive
263	END, 1925	Yes	No	None
264	REVOLUTIONARY MONUMENT, 1925	Yes	Direct	Positive
265	WOODBURY, 1933	Yes	No	None
266	CENTER OF BRIDGE ON HIGHWAY NO. 45, 1933	No field data available.		
267	WOODBURY COURTHOUSE CLOCK TOWER, 1933	Yes	Direct	Positive
268	COLONIAL MANOR WATER TANK, 1933	Yes	Direct	Positive
269	PAULSBORO, 1933	Yes	No	None
270	PAULSBORO SANDURA WILD CORP. SQUAT TANK, 1933	Yes	No	In comp. office
271	PAULSBORO MUNICIPAL WATER TANK, 1933	Yes	Direct	Positive
273	HOG ISLAND WATER TANK, 1926	Lost	Ruins identified	In comp. office
303	CLARKSBORO, EAST GREENWICH TWP. SILVER WATER TANK, 1933	Yes	Direct	Positive
571	BLOCK ISLAND LIGHT, 1933	Yes	Direct	Positive
740	L-10, 1930	No field data available		
741	M-10, 1930	Yes	Direct	Positive
d	MON 10045, 1938	Yes	Direct	Positive
m	POINT G (Airport Survey Party		Direct	In Washington Office Radially plotted



LEGEND  
 ○ Office Photograph  
 △ Field Photograph  
 △ Horizontal Control (see attached list for names of stations)

LAYOUT SKETCH  
 for  
 SURVEY NQT-8769  
 PROJECT NO. PH-7(46)E

MAP T. 8769

PROJECT NO. PH-7(46)E

SCALE OF MAP 1:10,000

SCALE FACTOR 1.000

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR $\psi$ -COORDINATE LONGITUDE OR $x$ -COORDINATE		DISTANCE FROM GRID IN FEET. OR PROJECTION LINE IN METERS		DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS		FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS	
					FORWARD	(BACK)		FORWARD	(BACK)	FORWARD	(BACK)
FT. MIFFLIN, GRAY WATER TANK, 1933	G-1751 Pg. 104	N.A. 1927	39°	52'	33.702"			1039.4	(811.1)		
			75	12	35.454			842.5	(583.3)		
PORT, 1925	G-1969 Pg. 138	"	39°	52'	27.597			851.1	(999.4)		
			75	12	34.126			811.0	(614.9)		
BROOKLAWN, MUNICIPAL W.T. 1933	G-1751 Pg. 104	"	39	52	42.028			1296.2	(554.3)		
			75	06	52.511			1247.8	(178.0)		
WESTVILLE, MUNICIPAL W.T., 1933	G-1751 Pg. 104	"	39	52	21.016			648.2	(1202.3)		
			75	07	36.450			866.2	(559.7)		
RED, 1925	G-1969 Pg. 138	"	39	52	25.481			785.9	(1064.6)		
			75	11	13.915			330.7	(1095.2)		
BELLEVUE HOTEL R.M. 1885	G-1664 Pg. 69	"	39	52	35.103			1082.6	(767.9)		
			75	10	36.590			869.5	(556.3)		
WOODBURY, 1933	G-1664 Pg. 70	"	39	50	29.858			920.9	(929.6)		
			75	09	05.939			141.2	(1285.4)		
CENTER OF BRIDGE ON HIGHWAY NO. 45	G-1664 Pg. 80	"	39	50	30.600			943.8	(906.7)		
			75	09	02.745			65.3	(1361.3)		
WOODBURY COURT HOUSE, CLOCK TOWER 1933	G-1751 Pg. 107	"	39	50	18.323			565.1	(1285.4)		
			75	09	13.247			315.0	(1111.6)		
COLONIAL MANOR WATER TANK, 1933	G-1751 Pg. 106	"	39	51	16.177			498.9	(1351.6)		
			75	08	40.421			960.8	(465.4)		
PAULSBORO, 1933	G-1664 Pg. 70	"	39	49	52.561			1621.1	(229.4)		
			75	14	12.584			299.2	(1127.6)		
PAULSBORO, SANDURA, MILD CORP., SQUAT BLACK W.T. 1933	G-1751 Pg. 107	"	39	50	07.154			220.6	(1629.9)		
			75	14	17.629			419.2	(1007.5)		

1 FT. = 3048008 METERS  
COMPUTED BY: J. Steinberg

DATE Oct. 1947

CHECKED BY: J.W. Younsiek

DATE Oct. 1947

MAP T-8769 PROJECT NO. PH-7(46)E SCALE OF MAP 1:10,000 SCALE FACTOR 1.000

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR Y-COORDINATE LONGITUDE OR X-COORDINATE		DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS		DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS		FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS
					FORWARD	(BACK)		FORWARD	(BACK)	
PAULSBORO, MUNICIPAL W.T. 1938	G-1751 Pg. 107	N.A. 1927	39° 50'	23.286"				721.3	(1129.2)	
HOG ISLAND, WATER TANK 1926	G-1751 Pg. 105	"	75 14	41.129				977.9	(448.7)	
NATIONAL PARK, MUNICIPAL ST. PIPE, 1925	G-1751 Pg. 105	"	39 52	00.539	<i>Note: A destroyed; remains of base of tank identified on photo in compilation office for radial plot control. C.H.</i>			16.6	(1833.9)	
BLOCK ISLAND LIGHT, 1925	G-1751 Pg. 105	"	75 14	14.657				348.4	(1077.7)	
U.S.C. & G.S. B.M. L-10, 1930 (used)	H.S.G.S. Traverse Phila. Quad.	"	39 51	55.771				1720.1	(130.4)	
USC&GS B.M. "M-10, 1930" (used)	U.S.G.S. Traverse Phila. Quad.	"	75 10	52.901				1257.3	(168.7)	
FT. MIFFLIN FLAG POLE, 1925	G-1969 Pg. 144	"	39 52	13.775				424.8	(1425.7)	
END, 1925	G-1969 Pg. 138	"	75 12	26.737				635.4	(790.5)	
REVOLUTIONARY MONUMENT (USE) 1925	G-1969 Pg. 144	"	39 50	03.71				114.4	(1736.1)	
WEST HORSESHOE FRONT RANGE 1925	G-1969 Pg. 144	"	75 14	41.59				989.0	(437.7)	
WEST HORSESHOE REAR RANGE, 1925	G-1969 Pg. 144	"	39 50	03.95				121.8	(1728.7)	
POINT "G" (BY Airport Survey)	G-1969 Pg. 144	"	75 14	21.50				511.2	(915.5)	
			39 52	45.028				1388.8	(461.7)	
			75 12	21.927				521.1	(904.7)	
			39 52	20.186				622.6	(1227.9)	
			75 11	21.804				518.2	(907.7)	
			39 52	16.527				509.7	(1340.8)	
			75 11	23.143				550.0	(875.9)	
			39 52	58.858				1815.3	(35.2)	
			75 12	13.515				321.1	(1104.5)	
			39 52	59.859				1846.2	(4.3)	
			75 12	32.438				770.8	(654.9)	
			39 52					1711.5	(139.0)	
			75 13					1262.8	(162.9)	

COMPUTED BY: J. Steinberg DATE: Oct. 1947 CHECKED BY: J.W. Vonasek DATE: October 1947



MAP T 8769 PROJECT NO PH-7(46)E 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		DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS		FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS
				FORWARD	(BACK)		FORWARD	(BACK)	
MON. 1011, 1939 (NJ&CS)	N.J. G.C.S.	N.A. 1927	369,513.57 1,865,236.12	4513.57 236.12	486.43 4,763.88		1375.7 72.0	148.3 1452.0	
MON. 1013, 1939 (NJ&CS)	"	"	366,266.55 1,862,201.60	1266.55 3201.60	3733.45 1,798.40		386.0 975.8	1138.0 548.2	
MON. 1014, 1939 (NJ&CS)	"	"	365,156.01 1,862,546.33	156.01 2546.33	4,843.99 2,453.67		47.5 776.1	1476.5 747.9	
MON. 1047, 1939 (NJ&CS)	"	"	362,826.56 1,836,627.54	2826.56 1627.54	2173.44 3372.46		861.5 496.1	662.5 1027.9	
MON. 1048, 1939 (NJ&CS)	"	"	363,184.14 1,837,680.26	3184.14 2680.26	1815.86 2319.74		970.5 816.9	553.5 707.1	
MON. 1049, 1939 (NJ&CS)	"	"	364,954.70 1,843,821.83	4954.70 3821.83	45.30 1178.17		1510.2 1164.9	13.8 359.1	
MON. 1050, 1939 (NJ&CS)	"	"	365,594.30 1,845,267.10	594.30 267.10	4405.70 4732.90		181.1 81.4	1342.9 1442.6	
MON. 1069, 1940 (NJ&CS)	"	"	352,486.61 1,843,276.93	2,486.61 3,276.93	2513.39 1723.07		757.9 998.8	766.1 525.2	
MON. 1070, 1940 (NJ&CS)	"	"	353,388.97 1,842,484.15	3,388.97 2484.15	1611.03 2515.85		1033.0 757.2	491.0 766.8	
MON. 4915, 1940 (NJ&CS)	"	"	363,989.33 1,861,987.76	3989.33 1987.76	1010.67 3012.24		1216.0 605.9	308.0 918.1	
MON. 4916, 1940 (NJ&CS)	"	"	362,926.36 1,861,708.08	2926.36 1708.08	2073.64 3291.92		892.0 520.6	632.0 1003.4	
MON. 4917, 1940 (NJ&CS)	"	"	361,605.90 1,861,248.46	1605.90 1248.46	3394.10 3751.54		489.5 380.5	1034.5 1143.5	

1 FT. = 3048006 METER COMPUTED BY J.C. Richter  
 DATE 11 Feb. 1948 CHECKED BY H.R. Rudolph  
 DATE 12 Feb. 1948 M-2388-12

MAP T- 8769 PROJECT NO. PH-7(46)E SCALE OF MAP 1:10,000 SCALE OF 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		DATUM CORRECTION	N.A. 1927-DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS		FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)
			FORWARD	(BACK)	FORWARD	(BACK)		FORWARD	(BACK)	
MON. 4918, 1940 (NJ&CS)	N.J. G.C.S	N.A. 1927	359,794.53	205.47	4794.53	205.47		1461.4	62.6	
MON. 4920, 1940 (NJ&CS)	"	"	360,754.08	4245.92	754.08	4245.92		229.8	1294.2	
	"	"	356,764.20	3235.80	1764.20	3235.80		537.7	986.3	
	"	"	1859.813.03	186.97	4813.03	186.97		1467.0	57.0	
MON. 10017, 1938 (NJ&CS)	"	"	378,599.63	1400.37	3599.63	1400.37		1097.2	426.8	
	"	"	1871.005.55	3994.45	1005.55	3994.45		306.5	1217.5	
MON. 10018, 1938 (NJ&CS)	"	"	377,482.37	2517.63	2482.37	2517.63		756.6	767.4	
	"	"	1871,179.62	3820.38	1179.62	3820.38		359.5	1164.5	
MON. 10023, 1938 (NJ&CS)	"	"	371,266.93	3733.07	1266.93	3733.07		386.2	1137.8	
	"	"	1871,193.93	2806.07	1193.93	2806.07		363.9	1160.1	
MON. 10030, 1938 (NJ&CS)	"	"	361,628.61	3371.39	1628.61	3371.39		496.4	1027.6	
	"	"	1871,239.72	3760.28	1239.72	3760.28		377.9	1146.1	
MON 10031, 1938 (NJ&CS)	"	"	359,941.38	58.62	4,941.38	58.62		1506.1	17.9	
	"	"	1,871,212.42	3787.58	1,212.42	3787.58		369.5	1154.5	
MON. 10040, 1938 (NJ&CS)	"	"	364,405.98	594.02	4,405.98	594.02		1342.9	181.1	
	"	"	1,862,107.28	2892.72	2,107.28	2892.72		642.3	881.7	
MON. 10041, 1938 (NJ&CS)	"	"	363,802.16	1197.84	3,802.16	1197.84		1158.9	365.1	
	"	"	1,860,973.38	4026.62	973.38	4026.62		296.7	1227.3	
MON. 10043, 1938 (NJ&CS)	"	"	362,491.42	2508.58	2491.42	2508.58		759.4	764.6	
	"	"	1,858,791.78	1208.22	3791.78	1208.22		1155.7	368.3	
MON. 10044, 1938 (NJ&CS)	"	"	361,908.73	3091.27	1908.73	3091.27		581.8	942.2	
	"	"	1,857,791.95	2208.05	2791.95	2208.05		851.0	673.0	
MON. 10046, 1938	"	"	360,458.42	4541.58	458.42	4541.58		439.7	1304.3	
	"	"	1,855,266.73	4733.27	266.73	4733.27		81.3	1442.7	

1 FT. = 3048008 METER  
 COMPUTED BY: J.C. Richter  
 CHECKED BY: H.R. Rudolph  
 DATE: 11 Feb. 1948  
 DATE: 12 Feb. 1948  
 M-2388-12

MAP T-8769 PROJECT NO. PH-7(46)E SCALE OF MAP 1:10,000 SCALE OF 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		DATUM CORRECTION	N.A. 1927 DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS		FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS
			FORWARD	(BACK)	FORWARD	(BACK)		FORWARD	(BACK)	
MON. 10046, 1938 ✓ (N.T.S.C.)	N.J. G.C.S.	N.A. 1927	360,458.42	4541.58	458.42	4541.58		139.7	1384.3	
MON. 10047, 1938 ✓ (N.T.S.C.)	"	"	1,855,266.73	4733.27	266.73	4733.27		81.3	1442.7	
MON. 10050, 1938 ✓ (N.T.S.C.)	"	"	359,461.79	538.21	4461.79	538.21		1360.0	164.0	
MON. 10052, 1938 ✓ (N.T.S.C.)	"	"	1853,454.27	1545.73	3454.27	1545.73		1052.9	471.1	
MON. 10053, 1938 ✓ (N.T.S.C.)	"	"	357,060.82	2939.18	2060.82	2939.18		628.1	895.9	
MON. 10054, 1938 ✓ (N.T.S.C.)	"	"	1849,349.20	650.80	4349.20	650.80		1325.6	198.4	
MON. 10091, 1939 ✓ (N.T.S.C.)	"	"	356,053.16	3946.84	1053.16	3946.84		321.0	1203.0	
MON. 10092, 1939 ✓ (N.T.S.C.)	"	"	1846,481.92	3518.08	1481.92	3518.08		451.7	1072.3	
MON. 10093, 1939 ✓ (N.T.S.C.)	"	"	355,078.73	4921.27	78.73	4921.27		24.0	1500.0	
MON. 10094, 1939 ✓ (N.T.S.C.)	"	"	1845,575.40	4424.60	575.40	4424.60		175.4	1348.6	
MON. 10095, 1939 ✓ (N.T.S.C.)	"	"	353,293.99	1706.01	3293.99	1706.01		1004.0	520.0	
MON. 10096, 1939 ✓ (N.T.S.C.)	"	"	1844,151.91	848.09	4151.91	848.09		1265.5	258.5	
MON. 10097, 1939 ✓ (N.T.S.C.)	"	"	356,175.49	3824.51	1175.49	3824.51		358.3	1165.7	
MON. 10098, 1939 ✓ (N.T.S.C.)	"	"	1864,962.18	37.82	4962.18	37.82		1512.5	11.5	
MON. 10099, 1939 ✓ (N.T.S.C.)	"	"	357,842.88	2157.12	2842.88	2157.12		866.5	657.5	
MON. 10100, 1939 ✓ (N.T.S.C.)	"	"	1864,634.36	365.64	4634.36	365.64		1412.6	111.4	
MON. 10101, 1939 ✓ (N.T.S.C.)	"	"	359,000.13	999.87	4000.13	999.87		1219.2	304.8	
MON. 10102, 1939 ✓ (N.T.S.C.)	"	"	1864,331.67	668.63	4331.67	668.63		1320.3	203.7	
MON. 10103, 1939 ✓ (N.T.S.C.)	"	"	360,507.06	4492.94	507.06	4492.94		154.6	1369.4	
MON. 10104, 1939 ✓ (N.T.S.C.)	"	"	1864,033.76	966.24	4032.76	966.24		1229.5	294.5	
MON. 10105, 1939 ✓ (N.T.S.C.)	"	"	362,894.40	2105.60	2894.40	2105.60		882.2	641.8	
MON. 10106, 1939 ✓ (N.T.S.C.)	"	"	1,864,470.13	529.87	4470.13	529.87		1362.5	161.5	
MON. 10107, 1939 ✓ (N.T.S.C.)	"	"	367,846.31	2153.69	2846.31	2153.69		867.6	656.4	
MON. 10108, 1939 ✓ (N.T.S.C.)	"	"	1,850,972.21	4027.79	972.21	4027.79		296.3	1227.7	

1 FT. = 3048006 METER COMPUTED BY J.C. Richter  
 CHECKED BY H.R. Rudolph  
 DATE 11 Feb. 1948  
 DATE 12 Feb. 1948  
 M-2388-12



COMPILATION REPORT

SHORELINE MANUSCRIPT, SURVEY NO. T-8769

T-8769 is one of 6 shoreline manuscripts in Project NO. PH-7(46)E located along the Delaware River. These surveys are to be compiled in accordance with instructions dated 25 March 1946 and 19 July 1946 by photogrammetric methods.

26. CONTROL

See layout of control submitted to the Washington Office, 15 January 1948. A list of stations on Form No. M-2388-12 is included in this report.

27. RADIAL PLOT

Refer to the report for the individual radial plot covering the area of Survey No. T-8769 which was submitted to the Washington Office 15 January 1948, *part of this report. ENR*

28. DELINEATION

The compilation is in accordance with the written instructions pertaining to Project No. PH-7(46), dated 19 July 1946, *copy filed in Div. of Photogrammetry. ENR*

The area at the mouth of Woodbury Creek was delineated in the field from a low water picture and the area is completely covered at high water. This area was carefully delineated at high water making use of the grass in water symbol. *Noted as mud when this area was field edited on T-8750. C.H.*

Refer to Survey No. T-8750 for interior details in the area of this survey.

29. SUPPLEMENTAL DATA

Topographic survey of the U.S. Engineer Reservation, Fort Mifflin, Pa., from the U. S. Engineer Office, Philadelphia, Pa. dated 18 August 1938.

30. MEAN HIGH WATER LINE

The shoreline was delineated from single lens photographs (1:10,000 scale field ratio prints) in accordance with the field identification shown thereon. Shoreline for which no field inspection was furnished (approximately 40%) was delineated in the compilation office after careful stereoscopic examination of the photographs.

30. MEAN HIGH WATER LINE (Continued)

However, the field inspection unit identified the apparent shoreline of Mantua Creek and Woodbury Creek on photographs 46-D-1874 and 46-D-1876, which were taken at extreme low water. These creeks were delineated from photographs 46-D-1641 and 46-D-1682 which were taken at high water, and grass in water or mud areas are not visible thereon. Delineation of the high water line of these creeks from high water pictures presents the true character of the shoreline.

31. MEAN LOW WATER LINE

(See Field Report for Survey No. T-8750, paragraph 8.) The majority of the single lens photographs were taken at MHW.

Only that portion of the mean low water line identified by the field party was delineated on the map manuscript. All of the MLW line shown is approximate.

<sup>shallow</sup>  
~~Shall~~ areas are shown for the information of the hydrographic party.

32. DETAILS OFFSHORE FROM THE MEAN HIGH WATER LINE

Delineated in accordance with the field identification.

33. WHARVES AND SHORELINE STRUCTURES

Delineated in accordance with the field identification and office interpretation.

34. LANDMARKS AND AIDS TO NAVIGATION

Refer to Radial Plot Report for Surveys Nos. T-8747 to T-8750 incl. submitted to the Washington Office 15 January 1948 for discussion of East Horseshoe Range Lights. - *see side-heading 69 of Review Report*

See Form 567 submitted with report for Topographic Survey No. T-8750.

35. HYDROGRAPHIC CONTROL

Two (2) photo hydro points. - *see side-heading 69 of Review Report*

A descriptive list of the photo hydro points is attached to this report. Two additional copies have been furnished for the use of the hydrographic parties.

36. LANDING FIELDS AND AERONAUTICAL AIDS

None shown. (*see side-heading 69 of Review Report*)

Note:

A list of bridge discrepancies for the  
north half of Project Ph-7 has been prepared  
and will be submitted to the Dist. Engr. (U.S.E.)  
during the field edit of map T-8747 C →

B 2-14-50

38. GEOGRAPHIC NAMES

Geographic names were taken from final names standard dated 16 March 1948 furnished by the Washington Office. A list of geographic names is attached to this report.

*and approved by Ar. Heck*

39. JUNCTIONS

The junctions to the west with Survey No. T-8770 and to the north with Survey No. T-8748A have been made and are in agreement. With regard to the latter junction, the delineation of the eastern shore of Delaware River has been extended to latitude 39° 53'. This was necessary since the compilation of Survey No. T-8748A by the Washington Office was not completed to latitude 39° 52' .30".

41. BRIDGES *(see side-heading 70 of Review Report)*

All bridge information for the area covered by this report as listed in the U. S. Engineers "List of Bridges Over Navigable Waters in the U.S." dated July 1, 1941 was verified in the field; all clearances were carefully measured with a steel tape, and the published descriptions and clearances were found to be correct except for the following discrepancies which were not reported to the Local District Engineer:

⊕ Rebuilt - Fixed concrete bridge; H.C. = 56.0'; V.C. = 16.0'  
Data obtained from Field Edit sheet T-8750  
C.N.

*Clearance determined during field edit for sheet T-8750*

1941 list page	Nearest Town	Type	Spans	Vert. Cl.			Hor. Cl.		
				List	Field	Coast Pilot	List	Field	Coast Pilot
274	Paulsboro, N.J. R.R.	SW	1	1.7	No.Cl.	1.7	32.0	36.9 <del>38.0</del>	35.5
274	Paulsboro, N.J. Hwy **	VL	1	64.0	65.0		75.0	75.5	41.0
274	Mount Royal, N.J."	F	1	12.0	10.0	12.0	68.0	67.0	60.0
502	Woodbury, N.J. <sup>SEP 47 1947</sup> <sub>SC 178769</sub>	SW	2	5.5	Skiff Cl.	65.5	L&R 40.5	* 39.0	40.0
502	Woodbury, N.J. ⊕ See note above	B	1	4.0	2.5	4.0	45.0	45.0	45.0
36	Westville, N.J.	F	3	14.3	14.0	14.3	60.0	58.0	
36	Westville, N.J. R.R.	F	1	14.3	14.0	14.3	33.0	32.0	34.0
260	Route 6, Gloucester, N.J.	F	2	2.23	Not given		L&R 30	Not given	
260	Gloucester, N.J. R.R.	F	5	4.1	Not given		10	Not given	
260	Gloucester, N.J. RR ***	F	2	6.1			L&R 38.0	Not given	

\* The field inspection party obtained only one clearance for the two (2) span swing bridge at Woodbury, N.J. Note to the Field Edit Party for clearance of this bridge has been made.

\*\* Coast Pilot calls this a swing bridge.

\*\*\* Photographs show this bridge destroyed. Only abutments and center pier remain.

44. COMPARISON WITH EXISTING TOPOGRAPHIC SURVEY

Survey No. T-8769 has been compared in detail with the Corps of Engineers, U. S. Army, Philadelphia quadrangle, scale 1:62,500 and was found to be in fair agreement. However, the Mifflin Bar Dike and also several piers along Hog Island are not shown on the quadrangle. A small island located approximately 800 meters northeast of the Mantua Creek entrance also has not been shown. (The shoreline on the west side of Woodbury Creek is now grass in water to where a rock bulkhead has been built.) The large pier or jetty approximately 250 meters east of the mouth of Woodbury Creek has been destroyed. A small island approximately 400 meters offshore from Fort Mercer is not shown on the quadrangle. A large dirt fill has been made west of the mouth of Big Timber Creek and does not appear on the quadrangle.

*Now mud; shoreline (MHW) follows RR bulkhead. C.H.*

45. COMPARISON WITH NAUTICAL CHART

Survey T-8769 has been compared with Nautical Chart No. 280 scale 1:15,000 published September 1943 (10th edition) (first edition 1928) corrected to 22 March 1948.

The following topographic information shown on Survey T-8769 is of sufficient importance to warrant immediate application to the chart:

None

The following topographic details above the plane of mean high water are not shown on this manuscript, but are believed to still exist and should be carried forward on this chart.

None.

Low water features are shown in part and should be completed by the hydrographic party.

Minor changes in cultural and shoreline details shown on this manuscript need no special discussion.

Respectfully submitted  
1 April 1948

*John C. Richter*  
Engineering Draftsman  
Compilation and Descriptive  
Report

*Joseph W. Monack*  
Photogrammetric Engineer  
Photogrammetric Office Reviewer

*Harry R. Rudolph*  
Supervisor

Approved and forwarded  
16 April 1948

*Thos. B. Band*  
Officer in Charge  
Baltimore Photogrammetric Office

*15m*

LIST AND DESCRIPTIONS OF PHOTO HYDRO POINTS

No.	Description	Pricked on Photo. No.
4801	Steel skeleton radio <del>tower</del> <sup>mast</sup> approximately <sup>145'</sup> 125 ft. high	1643
4802	Steel skeleton radio <del>tower</del> <sup>mast</sup> approximately <sup>145'</sup> 125 ft. high	1643.

From field inspection  
photo 1643.  
C.H., 11-22-49

P.S.  
An airport survey in 1948  
designates these as masts &  
not towers.  
See side-heading 69 of Review  
Report.

NOTES  
FOR  
HYDROGRAPHIC PARTIES

DELAWARE RIVER

SHORELINE MANUSCRIPT, SURVEY NO. T-8769

PROJECT NO. PH-7(46)E

The  $2\frac{1}{2}$  millimeter circle, accompanied with a name and date, indicates the position of a recoverable photo (topographic) station and the  $2\frac{1}{2}$  millimeter circle, accompanied by a number is the position of a photo-hydro point.

A topographic survey of the U. S. Engineer Reservation, Fort Mifflin, Pa. dated 1938 shows ruins of an old wharf on the LWL just opposite the fort. This was not visible on the photographs but should be investigated.

Survey No. T-8769 has been compared with Nautical Chart No. 280, scale 1:15,000, and found to be in fair agreement.

The following topographic information shown on T-8769 is of sufficient importance to warrant immediate application to the chart:

None.

The following topographic details above the plane of mean high water are not shown on this manuscript, but are believed to still exist and should be carried forward on this chart:

None.

Low water features are shown in part and should be completed by the hydrographic party.

Minor changes in cultural and shoreline details shown on this manuscript need no special discussion.

Respectfully submitted  
7 April 1948

*John C. Richter*  
Engineering Draftsman

Approved and forwarded  
16 April 1948

*Thomas B. ...*  
Officer in Charge  
Baltimore Photogrammetric Office

FIELD EDIT REPORT

T-8769

The field edit for this survey was done as part of the field edit for Topographic Survey T-8750. The Field Edit Report is filed as part of the Descriptive Report for T-8750.









GEOGRAPHIC NAMES

Big Timber Creek .  
Billingsport .  
Brooklawn .  
Delaware River .  
Eagle Point .  
Fort Mercer .  
Fort Mifflin .  
Greens Wharf .  
Greenwich .  
Hessian Run .  
Hoffmans Landing .  
Hog Island .  
Little Mantua Creek .  
Little Timber Creek .  
Lodge Point .  
Main Ditch .  
Mantua Creek .  
Mathews Branch Brook .  
Mingo Creek .  
Mount Royal .  
National Park .  
Newbold .  
Ogden .  
Paradise .  
Parkers Landing .  
Paulsboro .  
Philadelphia Sanitarium .  
Red Bank .  
Red Bridge .  
~~Timber Park~~  
Tinicum .  
Washington Point Neck .  
Westville .  
White Bridge .  
Woodbury .  
Woodbury Creek .  
Therefore .

disproposed 9/20/52 L.A.M.  
(see 2, Heck)

REVIEW REPORT  
Shoreline Survey T-8769  
24 January 1952

62. Comparison with Registered Topographic Surveys:

1. T-4177 (1925)	1:5,000
2. T-2100 (1891)	1:2,400
3. T-1854 (1888)	1:9,600
4. T-1991 (1890)	1:9,600
5. T-1484a (1880)	1:5,000
6. T-164 (1842)	1:10,000
7. T-165-bis (1842)	1:10,000

Survey T-8769 supersedes these above surveys for nautical charting purposes for common areas.

63. Comparison with Maps of Other Agencies:

1. Philadelphia, Pa.-N.J. quadrangle (USE); First Edition, 1943; scale 1:62,500.
2. Philadelphia, Pa.-N.J. quadrangle; Sheet 5963-1; First Edition (AMSI), 1943; (AMS3), 1947; scale 1:50,000.
3. Philadelphia, Pa.-N.J. quadrangle (USGS); Edition of April, 1898; reprinted 1943; scale 1:62,500.

64. Comparison with Contemporary Hydrographic Surveys:

No contemporary hydrographic surveys.

65. Comparison with Nautical Charts:

1. 280, scale 1:15,000, published 9-29-43, corrected to 3-28-49.
2. 295, scale 1:40,000, published 9-30-43, corrected to 7-18-49

66. Adequacy of Results and Future Surveys:

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

67. Detailing:

Some revisions in marsh, drainage and levees were made during this review. In each instance the changes resulted from a correction or refinement in using the original source material<sup>used</sup> by the compiler.

69. Landmarks and Aids to Navigation:

Block Island Light (Block Island Lt., 1925) was

reported as destroyed by the field editor, copy of Form 567 attached.

Two radio towers just east of this survey were recommended as aeronautical landmarks, copy of Form 567 attached.

Two lights, Horseshoe East Range Front and Rees Lights, formerly plotted according to geographic positions determined in 1925 and 1890 respectively, Chart Letter 679 (1946), were rebuilt in 1938. New positions for these lights as determined by this survey are listed in Chart Letters 606 (49) and 427 (48) respectively. See also side-heading 71.

Two radio masts south of Fort Mifflin noted as photo-hydro points 4801 and 4802 were recommended as nautical and aeronautical landmarks, copy of Form 567 attached.

A stack (Stack, 1946) located near the mouth of Mantua Creek is listed as 150 ft. high on Form 567, Chart Letter 427 (1948). An identification card (Form M-2226-12) and a Form 524 show the height as 125 ft. This is the height shown on the manuscript in the absence of further verification.

Other aids and landmarks are listed in Chart Letter 427 (1948) and 679 (1946). Positions in Chart Letter 679 (1946) shown to tenths of a second in latitude and longitude represent an approximate position by the field parties. The manuscript represents a more accurate position and should be used for nautical charting purposes.

70. Bridges:

No clearances were determined by the field parties for the two bridges over Little Timber Creek in Gloucester. See side-heading 41, this report.

No field data could be found on the three bridges crossing Woodbury Creek in Woodbury. From an examination of the photographs, these bridges appear fixed with skiff clearance only, if any.

71. Control:

New forms 526 were submitted to the Division of Geodesy during this review for the following stations stating that the stations should be listed as destroyed:

1. East Horseshoe Rear Range (N.J.), 1890
2. East Horseshoe Front Range (N.J.), 1926.

Reviewed by:

Charles Hanavich  
Charles Hanavich

APPROVED By:

S. V. Griffin  
Chief, Relief Section  
Division of Photogrammetry

A. Edmonston  
Chief, Nautical Chart Branch  
Division of Charts

O. S. Reading  
Chief, Div. of Photogrammetry

Carl O. Heaton  
Chief, Div. of Coastal Surveys

