

# 8753

Diag. Cht. No. 294

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

## DESCRIPTIVE REPORT

Type of Survey Topographic

Field No. \_\_\_\_\_ Office No. T-8753

### LOCALITY

State Delaware and New Jersey

General locality Delaware River

Locality Reedy Island to Harburg Cove

1948

### CHIEF OF PARTY

B. L. Jones, Chief of Party

T. B. Reed, Baltimore Photo. Office

### LIBRARY & ARCHIVES

DATE May 22, 1950

B-1870-1 (1)

# 8753

## DATA RECORD

T- 8753

Quadrangle (II): Delaware City

Project No. (II): PH-7(46)C

Field Office: New Castle, Del.

Chief of Party: E. L. Jones

Compilation Office:  
Baltimore Photogrammetric Office

Chief of Party: Thos. B. Reed

Instructions dated (II III):

25 March 1946

19 July 1946

Copy filed in Descriptive  
Report No. T- (VI)  
Division of Photogrammetry  
Office Files

Completed survey received in office:

26 Feb 1948

Reported to Nautical Chart Section: 1 Mar. 1948

Reviewed: 3 Oct. 1949

Applied to chart No.

Date:

Redrafting Completed:

Registered: 17 April, 1950

Published:

Compilation Scale: 1:20,000

Published Scale: 1:24000

Scale Factor (III): 1.000

Geographic Datum (III): N.A. 1927

Datum Plane (III): M.S.L.

Reference Station (III): DUPONT, 1933

Lat.: 39° 34' 17.303"  
(533.3m)Long.: 75° 34' 55.734"  
(1330.3m)Adjusted  
~~Unadjusted~~

State Plane Coordinates (VI): 1. Delaware 2. New Jersey

X = 1. 453,348.6

Y = 572,374.70

2. 1,741,917.47

270,058.73

Military Grid Zone (VI)

PHOTOGRAPHS (III)

<u>Number</u>	<u>Date</u>	<u>75th meridian Time</u>	<u>Scale</u>	<u>Stage of Tide</u>
15544 & 15545	3/21/46	1030	1:20,000	4' above MLW
15553 & 15554	3/21/46	1043	—"	4.3' above MLW

Tide from (III): Actual tide observations at Philadelphia, corrected to Delaware City to Reedy Island".

Mean Range: 5.2'

Spring Range: 5.7'

Camera: (Kind or source) U.S.C& G.S. Nine lens camera, focal length 8 $\frac{1}{4}$ ".

Field Inspection by: H.R. Brooks & M.A. Stewart - June, July, August, 1946.  
date:

Field Edit by: John D. Weiler  
Donald G. Flippo  
date: Oct.-Nov. 1948  
March 1948

Date of Mean High-Water Line Location (III):  
Same as date of photographs supplemented by field inspection during June, July and August 1946

Projection and Grids ruled by (III) T.L. Janson  
date: Sept. 24, 1946

" " " checked by: T.L.Janson  
date: Sept. 24, 1946

Control plotted by: Leroy A. Senasack  
date: Nov. 15, 1946.

Control checked by: George O. Fellers  
date: Nov. 21, 1946

Radial Plot by: Frank J. Tarcza  
Leroy A. Senasack  
date: April 30, 1947 to  
May 13, 1947

Detailed by: Leroy A. Senasack  
date: ( October 14, 1947 to  
( Dec. 3, 1947  
( Dec.17, 1947 to  
Reviewed in compilation office by: Raymond Glaser  
date: ( Jan.27, 1948  
( Feb.10, 1948 to  
date: Jan.--Feb.1948 ( Feb.13, 1948

Elevations on <sup>map manuscript</sup> ~~Field Data Sheet~~  
checked by: Raymond Glaser  
date: Feb.1948

STATISTICS (III)

Land Area (Sq. Statute Miles): 36

Shoreline (More than 200 meters to opposite shore): 30 statute miles

Shoreline (Less than 200 meters to opposite shore): 85 statute miles

Number of Recoverable Topographic Stations established: 14

Number of Temporary Hydrographic Stations located by radial plot: none

Leveling (to control contours) - miles: 59 linear

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 T-8753

This map is one of a series of 18 topographic  $7\frac{1}{2}$ -minute quadrangles in project Ph-7(46) extending southward along the Delaware River from Philadelphia, Pennsylvania to Lower Delaware Bay. Detailed shoreline information along the Delaware River was furnished by a series of 24 shoreline sheets at 1:10,000 scale.\*

These topographic sheets compiled at 1:20,000 scale are to be published by the U. S. Geological Survey at 1:24,000 scale as standard topographic quadrangles.

The registered copies under T-8753 will include the original descriptive report, a cloth-mounted print of the manuscript at a scale of 1:20,000 and a cloth-mounted color print of the published map at a scale of 1:24,000.

\* Shoreline information within the limits of T8753 should be taken from the larger scale, contemporary shoreline sheets T8777, T8778, T8779, T8774, and T8778 - see index on preceding page.

FIELD INSPECTION REPORT  
T 8753 (39° 30' / 75° 30' / 7.5')  
Project Ph-7 (46)  
Sub-project C  
E. L. Jones, Chief of Party

All phases of field work were completed in accordance with the Director's Instructions, Project Ph-7 (46), dated 25 March, 1946, and Supplemental Instructions No. 1, dated 14 June, 1946, except for deviations noted herein.

Since the area was divided naturally into eastern and western sections by the Delaware River, work was completed by two independent parties. The writer, M.A. Stewart, Engineering Aid, completed all phases of the work on the Delaware Side of the river, except as otherwise noted; and H.R. Brooks, Photogrammetrist, completed the New Jersey side, except as otherwise noted.

1. Description of the Area:

For the most part the land, characteristic of tidal country, is undulating with elevations ranging from sea level to about 50 feet above M.S.L.

The land area is composed of about one-third salt marsh, considered valuable for muskrat trapping, and about two-thirds general farm land. The principle industries are agriculture and fishing.

In the northeast corner of the quadrangle, a large portion of Goose Island Flats has been filled in and a rock bulkhead been built. The area formed by this bulkhead, east to Lighthouse Road, is a National Wildlife Refuge. Here, naturalists study the habits and gather statistics on various species of migratory birds.

Three Military Installations are located in the quad. They are Fort Dupont, Fort Delaware, and Fort Mott; the latter two, although they appear in good repair, have been abandoned. They are sturdy concrete and granite structures, for the most part underground, with many winding tunnels and narrow, dark passageways. Wide, deep moats surrounding the fortifications are reminiscent of medieval days and ancient warfare.

2. Completeness of Field Inspection:

Field inspection is felt to be adequate and complete. For full details refer to appropriate paragraph headings below.

FIELD INSPECTION REPORT  
T 8752 (390 201 / 750 301 / V. 51)  
Project M-7 (48)  
and Project C  
E. L. Jones, Chief of Party

All phases of field work were completed in accordance with the Director's Instructions, Project M-7 (48), dated 28 March, 1946, and Supplemental Instructions No. 1, dated 14 June, 1946, except for deviations noted herein.

Since the area was divided naturally into eastern and western sections by the Delaware River, work was completed by two independent parties. The writer, M.A. Stewart, Engineering Aid, completed all phases of the work on the Delaware side of the river, except as otherwise noted; and H.H. Brooks, Photographer, completed the New Jersey side, except as otherwise noted.

1. Description of the Area:

For the most part the land, characteristic of tidal country, is underlaid with elevations ranging from sea level to about 30 feet above M.S.L.

The land area is composed of about one-half mile square, considered valuable for agriculture (west of limits) and farm land. The principle industries are agriculture and  
In the northeast corner of the quadrangle a  
of Goose Island flats has been filled in and a  
built. The area formed by this bulhead, east to  
a National Wildlife Refuge. Here, naturalists study  
gather statistics on various species of migratory birds.

Three Military Installations are located in the quad. They are Fort Dupont, Fort Delaware, and Fort Mott; the latter two, although they appear in good repair, have been abandoned. They are sturdy concrete and granite structures, for the most part underground, with many winding tunnels and narrow, dark passageways. Wide, deep moats surrounding the fortifications are reminiscent of medieval days and ancient warfare.

2. Completeness of Field Inspection:

Field inspection is felt to be adequate and complete. For full details refer to appropriate paragraph headings below.

Y-9 USCZGS  
H-1, 1931 " (west of limits)  
J-1, 1931 "  
K-1, 1931 "  
Delaware City 30 "  
USE  
Fort Dupont Mon.

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### 3. Interpretation of the Photographs:

Two sets of photographs were used, single lens 1/10,000 scale contact prints, for shoreline inspection and horizontal control identification, and 9-lens 1/20,000 scale photos for vertical control identification, contouring, and interior inspection.

Since photography was of the first part of March, 1946, no difficulty was encountered in the interpretation of photographic details for various phases of the work.

### 4. Horizontal Control:

Twenty-nine horizontal control stations were searched for or recovered. Of these, seventeen were identified on the photos, from detail points, the substitute station method, or pricking direct.

Recovery and identification of horizontal control on the New Jersey side was accomplished in July, 1946.

Recovery and identification of horizontal control on the Delaware side was accomplished during July and August, 1946. I. Y. Fitzgerald, Engineering Aid, assisted M. A. Stewart with this phase of the work.

### ← 5. Vertical Control:

Vertical control consisted of recovery and identification of existing bench marks on 9-lens photographs, and establishing of 4th order levels.

BM recovery was completed during the month of June, 1946.

#### 4th Order Levels:

Approximately 59 linear miles of 4th order levels were completed, from 18 June to 10 July, 1946. Elevations were determined by wye level methods to the nearest 0.01 of a ft. The maximum error of closure was 0.35 feet; all errors greater than 0.30 feet were prorated throughout the line.

### 6. Contours and Drainage:

Contouring was done in the field directly on 1/20,000 scale 9-lens photographs by planetable methods. The contour interval was 10 feet; all work was done as near the center portion of the photos as possible to minimize distortion and large scale changes.

Preliminary to field work a stereoscopic examination of the photographs was made; drainage was delineated and other data entered

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on the photos. After field work was completed, another stereoscopic examination was made to check the shapes of the contours.

7. Mean High Water Line:

The average range of tide is 5.3 feet.

Shoreline on the Delaware side was inspected by I.Y. Fitzgerald, Engineering Aid, during August, 1946.

Shoreline on the New Jersey side was inspected by H. R. Brooks, Photogrammetrist, during June, 1946.

8. Low Water Line:

In general, the low water line was not delineated because of the difficulty of viewing the shoreline at Low Water. Where such visits were practical, it was generally noted that the low water line and apparent shoreline are synonymous because most banks are perpendicular to the water. In a few instances, the low water line was found to be outside the apparent shoreline; storms caused the banks to slough off, creating a mud plain.

9. Wharves and Shoreline Structures:

There are several large piers and shoreline structures in the area, and it is interesting to note that the pier located at the National Wildlife Refuge is used in connection with a pumping operation carried on there.

10. Details Offshore from High Water Line:

No comments necessary.

11. Landmarks and Aids to Navigation:

Data on Landmarks and Aids to Navigation is listed on the accompanying Forms No. 567, except azimuths of ranges.

The azimuth of the Chesapeake-Delaware Canal Range is to be determined by the Photogrammetric Office; a point on range was identified on the photographs. (*Center of lift bridge*)

Three point sextant fixes were made on Finns Point and Salem River Ranges. In both instances, it was not practical to determine the azimuths of the ranges by planetable, triangulation, or photogrammetric methods without undue cost. (*See page 5*)

All fixed Aids to Navigation were checked in the field against the 1945 Light List and are in agreement except for the following:

1945 Light List		Chart No.	Chkd. in Field		Discrepancy
Name of Aid	Light List No.		Lat. Long.	By: Date:	
CHESAPEAKE & DELAWARE CANAL No. 1	1663	294 & 570 39°33.7 75°34.0	I.Y.F. 7/31/46	T-8753	In existence, charted correctly but located 300' W.of E. end of S. jetty, <u>not</u> at end of S. jetty.
CHESAPEAKE & DELAWARE CANAL No. 4	1666	294 & 570 39°33.7 75°34.0	I.Y.F. 7/31/46	T-8753	In existence, charted incorrectly. Should be charted at NE corner of dock <u>not</u> on bank NW of dock
CHESAPEAKE & DELAWARE CANAL No. 9	1670	294 & 570 39°33.2 75°36.2	I.Y.F. 7/31/46	T-8753	In existence, charted correctly but located on south bank. Structure is white tank <u>not</u> white post.
CHESAPEAKE & DELAWARE CANAL No. 12	1672	294 & 570 39°33.4 75°37.2	I.Y.F. 7/31/46		In existence, charted correctly but located on north bank. Structure is white tank house <u>not</u> white skeleton tower and tank house on pier.

Azimuth of Navigational Ranges  
(copied from Desc. Rpt. T-8751)

Three-point sextant fixes to determine the azimuth of navigational ranges were obtained by George F. Varnadoe and James E. Hundley on 16-17 Sept, 1948 and are as follows:

At points on New Castle Range:

1.	Δ Fort Mott Monument, 1933	76°57'00"
(S)	0 Light on Point, N.W. of Monument	-- -- --
	0 New Castle F. & R. Range Light	46 43 30
2.	Δ Fort Mott Monument, 1933	71 18 00
(W)	0 Light on Point, N.W. of Monument	-- -- --
	0 New Castle F. & R. Range Light	62 10 00

At points on Bulkhead Bar Range:

1.	Δ Fort Mott Monument, 1933	71°20'00"
(S)	0 Light on Point, N.W. of Mon.	-- -- --
	0 Rear Range Light (New Castle Range)	63°18'30"
2.	Δ Fort Mott Monument, 1933	67°33'00"
(W)	0 Light on Point, N.W. of Mon.	-- -- --
	0 Rear Range Light (New Castle Rng.)	83 31 30

*deleted from manuscript*

Copy of Field Notes-----SALEM RIVER RANGE

At a point on range (1)

- TRI. - Salem Gayner Glass Co., black water tank, 1933
- TRI. - Salem River, Front Range Lt., 1933 = 44° 03' ✓
- TOPO. - Finns Point, Front Range Lt., 1946 = 47° 56' ✓

At a point on range (2)

- TRI. - Salem Gayner Glass Co., black water tank 1933
- TRI. - Salem River, Front Range Lt. 1933 = 45° 10' ✓
- TOPO. - Finns Point, Front Range Lt. 1946 = 47° 09' ✓

Triangulation station, Salem River Front Range Light, 1933 was then occupied and a Sextant angle observed from Triangulation Station, Salem Gayner Glass Co., black water tank, 1933, to Triangulation Station, Salem River, Rear Range Light, 1933. The observed angle was 52°-02'-30" ✓

Copy of Field Notes-----FINNS POINT RANGE

At a point on range (1)

- TRI. - Salem Gayner Glass Co., black water tank 1933
- TOPO. - Finns Point, Front Range Light 1946 = 79°-07'-00" ✓
- TRI. - Fort Mott Monument, 1933 = 23°-10'-30" ✓

At a point on range (2)

- TRI. - Salem Gayner Glass Co., black water tank 1933
- TOPO. - Finns Point, Front Range Lt. 1946 = 71°-57'-30" ✓
- TRI. - Fort Dupont, black water tank, 1933 = 94°-22'-30" ✓

12. Hydrographic Control:

<sup>Fourteen</sup>  
~~Nineteen~~ recoverable topographic stations were established, pricked on the photographs, and described on Form No. 524.

Twelve hydrographic signal sites were selected, pricked on the photographs, and briefly described thereon.  
*See Descriptive Reports: 7-8774, 7-8775, 7-8777, 7-8778*

13. Landing Fields and Aeronautical Aids:

None.

14. Roads:

No comment necessary.

15. Bridges:

A field investigation of the published bridge data was made during July, 1946, by M.A. Stewart, Engineering Aid, while contouring in the area. Horizontal and vertical clearances were measured in the field with a steel tape.

Field measurements of the Delaware City Branch Canal, Single span Bascule Bridge check the 1941 List of Bridges over Navigable Waters.

*see Revised Report*

The Reedy Point Bridge, over the Chesapeake and Delaware Canal, (page 78, 1941 List of Bridges) has a 169.5 ft. horizontal clearance, center span, instead of 168.2.

16. Buildings:

No comment necessary.

17. Boundaries:

No comment necessary.

18. Geographic Names:

*814 ✓*

Geographic names were investigated by the contour parties during July and August, 1946. All geographic name information will be compiled into a special report, prepared by Lowell I. Bass, Engr. Aid.

19. Coast Pilot Information:

Coast Pilot information was investigated during the course of field work; and a special project report compiled by George E. Varnadoe, Photogrammetrist.

Sumbitted 21 August, 1946:

*Matthew A. Stewart*  
M. A. Stewart,  
Engineering Aid

Approved 23 August, 1946:

*Edmund L. Jones*  
Edmund L. Jones,  
Chief of Party

MAP T-8753

PROJECT NO. PH-7(46)C

SCALE OF MAP 1:20,000

SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR $\psi$ -COORDINATE LONGITUDE OR $\chi$ -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)	
FINNS POINT REAR RANGE LT., 1933	G-1751 Pg. 125	N.A. 1927	39° 37'	01.063"				32.8	(1817.6)	
			75° 32'	03.310"				79.0	(1352.2)	
FORT MOTT, NATIONAL CEMETERY MONUMENT, 1933	G-1751 Pg. 125	"	39° 36'	41.741"				1287.3	(563.1)	
			75° 33'	23.196"				553.3	(878.0)	
FORT MOTT, 1933	G-1664 Pg. 74	"	39° 36'	13.419"				413.8	(1436.6)	
			75° 33'	13.810"				329.5	(1102.0)	
FOR MOTT (U.S.E.) 1900	G-1664 Pg. 79	"	39° 36'	13.786"				425.2	(1425.2)	
			75° 33'	13.713"				327.2	(1104.3)	
FINN, 1934 R.M.	G-1913 Pg. 136	"	39° 35'					1099.3	(751.1)	
			75° 32'					365.6	(1066.1)	
PEA PATCH ISLAND LT., 1933	G-1751 Pg. 125	"	39° 35'	25.500"				786.4	(1064.0)	
			75° 33'	54.918"				1310.5	(121.3)	
FORT DELAWARE (U.S.E.) 1937	U.S.E.D. Phila. Dist.	"	39° 35'	20.908"				644.8	(1205.6)	
			75° 34'	03.393"				81.0	(1350.8)	
SUB STA. FORT DELAWARE (U.S.E.)	"	"	39° 35'					622.1	(1228.3)	
			75° 34'					62.0	(1369.8)	
SALEM RIVER REAR RANGE LT., 1933	G-1751 Pg. 126	"	39° 34'	40.844"				1259.6	(590.8)	
			75° 30'	47.098"				1124.1	(307.9)	
SALEM COVE NORTH, 1934	G-1913 Pg. 136	"	39° 34'	40.915"				1261.8	(588.6)	
			75° 30'	46.942"				1120.4	(311.6)	
DELAWARE CITY, SILVER STANDPIPE, 1933	G-1751 Pg. 126	"	39° 34'	27.569"				850.2	(1000.2)	
			75° 35'	39.805"				950.1	(482.0)	
DUPONT, 1933	G-1664 Pg. 73	"	39° 34'	17.303"				533.3	(1316.8)	
			75° 34'	55.734"				1330.3	(101.8)	

*Removed from manuscript  
This light has been proved  
See Ann 567, P. 1.*

1 FT. = 304806 METERS  
COMPUTED BY: L.A. Senasack  
DATE: 11/8/46  
CHECKED BY: G.O. Fellers  
DATE: 11/9/46

M. 2388.12

MAP T.....8753..... PROJECT NO.....PH.7(46)C..... SCALE OF MAP 1:20,000..... SCALE FACTOR.....

STATION	SOURCE OF INFORMATION (INDEX Pg.)	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		FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS
						FORWARD	(BACK)	
SUB. STA. DUPONT		N.A. 1927	39° 34'			534.7 (1315.7)		Removed from manuscript
SALEM RIVER FRONT RANGE LT., 1933	G-1751 127	"	75° 34'			1341.1 (91.0)		Removed from manuscript
SALEM COVE SOUTH, 1934	G-1913 136	"	39° 34' 15.324"			472.6 (1377.8)		
FORT DUPONT BLACK WATER TANK, 1933	G-1751 127	"	75° 31' 03.726"			88.9 (1343.2)		
REEDY POINT, C&D CANAL SOUTH BREAK-WATER FL. W. LT., 1933	"	"	39° 34' 03.753"			115.7 (1734.7)		
DELAWARE CITY, C&D CANAL LIFT BRIDGE	"	"	75° 30' 43.614"			1041.1 (391.1)		
NORTH PIER, 1933	"	"	39° 34' 02.700"			83.3 (1767.1)		
DELAWARE CITY, C&D CANAL LIFT BRIDGE	"	"	75° 35' 08.260"			197.2 (1235.0)		
SOUTH PIER, 1933	"	"	39° 33' 36.465"			1124.6 (725.8)		
BAKER BEAR RANGE LT., 1933	"	"	75° 33' 42.946"			1025.2 (407.2)		
EL SINBORO, 1933	G-1664 74	"	39° 33' 29.757"			917.7 (932.7)		
PORT PENN, 1933	"	"	75° 35' 00.448"			10.7 (1421.7)		
SUB. STA. PORT PENN	"	"	39° 33' 27.703"			854.4 (996.0)		
CARROW, 1933	G-1664 58	"	75° 34' 59.788"			1427.3 (5.1)		
	"	"	39° 32' 26.687"			823.0 (1027.4)		
	"	"	75° 34' 12.770"			304.9 (1127.9)		
	"	"	39° 32' 26.169"			807.1 (1043.3)		
	"	"	75° 32' 01.883"			45.0 (1387.8)		
	"	"	39° 32' 01.927"			59.4 (1791.0)		
	"	"	75° 34' 44.544"			1063.8 (369.1)		
	"	"	39° 32'			10.7 (1839.7)		Removed from manuscript
	"	"	75° 34'			1068.7 (364.2)		west of limits
	"	"	39° 31' 34.187"			1054.3 (796.1)		
	"	"	75° 37' 53.120"			1268.8 (164.3)		

1 FT. = .3048006 METER  
 COMPUTED BY: *J. A. Senasack*  
 CHECKED BY: G.O. Fellers  
 DATE: 11/8/46  
 DATE: 11/9/46  
 M. 2388-12

MAP T. 8753 PROJECT NO. PH-7(46)-C SCALE OF MAP 1:20,000 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		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)
SUB. STA. CARROW		N.A. 1927	39° 31'				968.8	(881.6)		
PORT PENN PRESBY-G- TERIAN CHURCH SPIRE, 1933	1751 129	"	75° 37'				1292.6	(140.5)		
REEDY ISLAND QUARANTINE STATION "	"	"	39° 31'	00.250"			7.7	(1842.7)		
WHITE WATER T. 1933	"	"	75° 34'	41.951"			1002.1	(431.2)		
REEDY ISLAND BAKER FRONT RANGE LT., 1933	"	"	39° 30'	54.680"			1686.3	(164.1)		
	"	"	75° 33'	45.544"			1088.0	(345.3)		
REEDY ISLAND LT., 1933	"	"	39° 30'	33.124"			1021.5	(828.9)		
	"	"	75° 34'	00.103"			2.5	(1430.9)		
REEDY (U.S.E.) 1901	G- 1664	"	39° 30'	02.760"			85.1	(1765.3)		
	"	"	75° 34'	09.568"			228.6	(1205.0)		
DELAWARE CITY CHURCH SP. 1933 (Destroyed May 1946)	G- 1751 126	"	39° 30'	01.952"			60.2	(1790.2)		
	"	"	75° 34'	09.733"			232.6	(1201.0)		
	"	"	39° 34'	28.012"			863.9	(986.5)		
	"	"	75° 35'	37.064"			884.6	(547.5)		

COMPILATION REPORT

QUADRANGLE - DELAWARE CITY

T-8753 (Delaware City Quadrangle) is one of <sup>18</sup> ten topographic manuscripts in Project PH-7(46) located along the Delaware River and Bay. These surveys are to be compiled in accordance with instructions dated 25 March 1946 and 19 July 1946 by graphic photogrammetric methods.

26. CONTROL

See radial plot report for layout of <sup>Horizontal</sup> control in this area. A list of stations on Form No. M-2388-12 is included in this report.

27. RADIAL PLOT

Refer to the report for the combined radial plot covering the areas of Surveys No. T-8751 to T-8754 inclusive, submitted to the Washington Office 21 May 1947. See also the individual radial plot report covering the area of T-8774 (scale 1:10,000) submitted to the Washington Office 12 September 1947. Also refer to the reports for combined radial plots covering the areas of Surveys Nos. T-8777 to T-8779 and eastern half of T-8775 (scale 1:10,000) submitted to the Washington Office 24 June 1947.

28. DELINEATION

The compilation is in accordance with written instructions pertaining to Project PH-7(46) dated 19 July 1946.

The mean high water line bordering along the Delaware River, Chesapeake and Delaware Canal, and Delaware City Canal as delineated on the manuscript was traced from four (4) shoreline manuscript reductions: the southern half of Survey T-8774, the eastern half of Survey T-8775, the western portion of Survey T-8777 and northern portion of Survey T-8778.

For pertinent information relative to <sup>the original</sup> delineation of the shoreline area, refer to Descriptive Reports for Surveys Nos. T-8774, T-8775, T-8777, T-8778 and to the respective shoreline surveys which show the shoreline features at a larger scale.

A traffic light, as identified by the field inspection, has been delineated at the entrance of the Chesapeake and Delaware Canal.

29. SUPPLEMENTAL DATA

Map of New Jersey-Delaware Boundary in Delaware River and Bay to accompany the decree of the Supreme Court of the United States, dated 30 March 1935, by Sherman and Sleeper, Engineers.

1. Excluded in Descriptive Report for T-8751.
2. Attached to the Descriptive Report T-8774
3. Filed in General Files of the Div. of Photogrammetry.

30. MEAN HIGH WATER LINE

All of the mean high water line not covered by shoreline surveys and not identified by the field party has been delineated in the compilation office after stereoscopic examination of the photographs. (See paragraph 28).

31. LOW WATER AND SHOAL LINES

Only that portion of the mean low water line identified by the field party has been delineated on the map manuscript. It is shown with a dotted line where the field identification was approximate and with a dash and dot where the field identification was exact.

No shoal lines have been delineated.

32. DETAILS OFFSHORE FROM THE MEAN HIGH WATER LINE

Two (2) sunken barges directly offshore to the east of Port Penn, and three (3) sunken barges directly offshore just north of Canadas Beach have been delineated according to field identification.

33. WHARVES AND SHORELINE STRUCTURES

No comment

34. LANDMARKS AND AIDS TO NAVIGATION

*4 landmarks (Δ stations)  
21 Aids:*

See form 567 attached to this report. *8 are Δ stations  
13 are recoverable topographic sta (528)*  
*(See also "Addendum" following page 20)*

35. HYDROGRAPHIC CONTROL

None shown

See descriptive reports for shoreline surveys Nos T-8774, T-8775, T-8777 and T-8778 for location and description of photo hydro stations.

36. LANDING FIELDS AND AERONAUTICAL AIDS

None

37. GEOGRAPHIC NAMES

Geographic names have been taken from the final name standards dated 12/18/46 and 12/10/46. At latitude 39° 32' longitude 75° 31' there is a Mill Creek (name from field identification) which empties into Mill Creek Cove (name from final name standard). It is noted that there is a Mill Creek (name from final name standard) at latitude 39° 36' and longitude 75° 31'. A list of geographic names is attached to this report.

*Approved  
by Geographic Names Section, Div. of Charts.*

38. JUNCTIONS

Junction has been made with Survey No. T-8755 to the south and is in agreement. Junction has been made with Survey No. T-8754 to the east, T-8751 to the north, and are in agreement except for the contours *ok* noted on overlay for correction by the field edit party.

39. BRIDGES

See paragraph 15 of the field report.

*see Review Report #41*

40. BOUNDARIES

All boundaries which have been shown on the map manuscript are in accordance with field identification except the boundary between Delaware and New Jersey which has been shown in accordance with legal description thereof. Other boundaries which are known to exist and for which field identification or legal description was lacking have been indicated on the discrepancy overlay for field edit identification.

*see Review Report #41*

44. COMPARISON WITH EXISTING TOPOGRAPHIC QUADRANGLES

Survey No. T-8754 has been compared in detail with the U. S. Geological Survey Wilmington, Delaware-New Jersey quadrangle, scale 1:62,500 and found to be in fair agreement.

45. COMPARISON WITH NAUTICAL CHARTS

Survey No. T-8753 has been compared with Nautical Chart No. 294, scale 1:40,000, and Nautical Chart No. 570, scale 1:20,000 and found to be in fair agreement.

The following topographic information shown on the map 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 will be completed by the hydrographic party.

Respectfully submitted  
11 February 1948

Jeroy A. Swasack  
Engineering Draftsman  
Compilation and Descriptive Report

Raymond Glass  
Engineering Draftsman  
Photogrammetric Office Reviewer

Henry R. Rudolph  
Supervisor

Approved and forwarded  
25 February 1948

Thos Baird  
Officer in Charge  
Baltimore Photogrammetric Office

Addendum to Descriptive Report, Survey No. T-8753.

34. Non-floating Aids

The radially plotted position of Pea Patch Island Dike Gap Light, Chesapeake and Delaware Canal Beacon 6A, cut in on the field edit sheet, and Salem River Rear Range Light (which was moved from its triangulated position to its present radially plotted position) are being submitted by the compilation office on Form No. 567.

*See Sub. 11;  
Field Edit*

37. Geographic Names

Field editor, John D. Weiler, recommended the name Fort Dupont be changed to Governor Bacon Health Center. See field edit report by Donald G. Flippo for additional name changes. The recommended names have been shown on the manuscript.

40. Boundaries

The original field identification and the identification shown on the field edit sheet of the Killcohook National Wildlife Refuge boundary do not agree with the sketch and legal description of the boundary furnished by the field edit party.

*See Review Report  
#41*

Respectfully submitted:

*Millard F. Kirk*  
Millard F. Kirk  
Cartographer

Approved and forwarded

*Thos. B. Reed*

Thos. B. Reed  
Officer in Charge  
Baltimore Photogrammetric Office

22

Field Edit Report of Map Manuscript T-8753  
Project Ph-7(46)  
R. J. Sipe, Chief of Party

The field edit of this quadrangle was accomplished during the period 16 March to 31 March 1948 by Donald G. Flipppo, Photogrammetric Aid. All work was done in accordance with the field edit instructions for project Ph-7(46), dated 24 August 1945 and supplemental field instructions.

11. Landmarks and Aids to Navigation: There are two aids to Navigation near the New Jersey shore that have not been checked. The discrepancy print asked that they be checked but were not by this party. The aids are, Salem Rear Range Light\* and a light which is supposedly Pea Patch Dike Gap Light. All other work has been completed on the East side of the Delaware River except for these exceptions.

\* See also subject heading 47, paragraph 7 of Field Edit Report (Yeiler), following. (LTS)

14. Road Classification: The roads in this quadrangle have been re-classified in accordance with Amendment to Instructions No. 10.

17. Boundary Monuments and Lines: Some discrepancies were found in the delineation of the boundary of Kilcohook Wildlife Refuge. The Legal Description and tracing of the Official Map has<sup>be</sup> been included with this report for aiding the Compiler in correcting this boundary.

see Review Report  
PH

18. Geographic Names: <sup>814</sup> Names in the quadrangle were checked in accordance with instructions and found to be adequate with the following exceptions:

- a. ✓ Supawna Meadow has been added.
- b. ✓ Hickory Island has been added
- c. ✓ Lower Alloway Creek Township has been changed to read Lower Alloways Creek Township.
- d. ✓ Kilcohook Wildlife Refuge has been added.
- e. ✓ Bolls Creek has been changed to Baldrige.

Refer to  
US. 1064.

46. Methods: All delineated features such as roads, structures, drainages, and contours were checked either visually by driving along roads and trails or by planetable method.

Delineation and some additions were made directly on the field edit sheet. Some additions and corrections were noted on the photographs with a reference to the photograph on the field edit print. A legend to the symbols and to the colored ink used during the field edit is on the field edit print.

47. Adequacy of the Compilation: Two compiled roads have been deleted. Several outbuildings had been compiled but these have been deleted or left with regards to size according to instructions. Many structures were added and some contour corrections have been shown on the map manuscript.

The relative position of compiled detail was found to be entirely satisfactory. With the addition of the field edit data to the manuscript, this map will be complete and accurate in regard to the New Jersey side of the Quadrangle and the two exceptions already mentioned. No work has been done on the Delaware side.

48. Accuracy Tests: No vertical accuracy test was made on the New Jersey side as the test called for is in Delaware. This should be made when work is resumed in that area.

This field edit party has made no attempt to verify the horizontal accuracy of this quadrangle.

49. Review of the First Proof: The following named gentleman has expressed his willingness to review the first proof:

Mr. James S. Sparks  
Grant Street  
Salem, New Jersey

Respectfully submitted

*Donald G. Flippo*

Donald G. Flippo  
Photogrammetric Aid  
14 April 1948

FIELD EDIT REPORT  
Quadrangle T-8753  
39°30' - 75°30'/7.5  
Project Ph-7(46)  
Riley J. Sipe, Chief of Party

Field edit of the western half of this quadrangle was completed during October 1948 by John D. Weiler, Photogrammetrist.

46. METHODS

In field editing the map manuscript, all roads were traversed by truck. Because of the plethora of roads in the area, walking was necessary in very few instances.

All data added to the map manuscript were either plotted from topographic features or cut in by planetable methods.

Boundary research was done in the New Castle County Law Library at Wilmington, Delaware. *See Review Report #41*

47. ADEQUACY OF THE MAP MANUSCRIPT

The map manuscript was well compiled. A majority of the corrections were the result of additions since the date of the original field inspection. Most of the field edit notes are self-explanatory. The following items are clarified.

There is no visual trace of a submerged cable between the Delaware shore and Pea Patch Island. Engineers of the Diamond State Telephone Company and the Delaware Power and Light Company could find no trace of this cable in their records. The chief engineer of the power company offered the following explanation, "the area involved was undoubtedly reserved for a cable area by government regulation, but the cable never installed". The question is referred to Hydrography.

The submerged cable between Port Penn and Reedy Island has been delineated. It falls outside the cable area shown on the nautical charts.

The piling in the vicinity of Reedy Island has been removed. It served as a wartime submarine barrier.

Reedy Island is no longer used as a Quarantine Station. At present, it is under the authority of the U.S.E.D..

Fort Dupont has been turned over to the State of Delaware, and has been converted to a permanent state hospital named GOVERNOR BACON HEALTH CENTER. A large number of the buildings in the area have been dismantled.

The Salem River Rear Range Light was moved inshore to its present radially-plotted position in 1938.

Attention is called to the C and D Canal Buoy 6A. It is a nonfloating aid, a red pile daybeacon bearing 5 feet at MHW. The location has been cut in by planetable on the field edit sheet.

#### 48. VERTICAL ACCURACY TEST

A vertical accuracy test was run in the area specified by the reviewer. Approximately 80 random elevations were examined, and are shown on the field edit sheet in purple ink. Some contour resketching was necessary where fine detail had been overlooked. In general, the topographers elevations were correct, and the contouring is within the prescribed limits of accuracy. *(summary & Abstract attached here)*  
*filed in Div. of Photogrammetry General Files.*

#### 49. BOUNDARIES

A legal description of Delaware City is included with this report. It is the original boundary description of the city and does not fit the boundary delineated on the map manuscript. Evidently the boundary has been changed without a written or recorded description of the changes. Local information indicated conclusively that the delineated boundary was correct, except for the area along the Delaware River where it follows the low water line. *See Review Report*

The boundary between Red Lion Hundred and St. Georges Hundred has been added to the field edit sheet; as well as the boundary between Red Lion Hundred and New Castle Hundred. These boundaries were verified by local information, and accepted as correct. The following quotation is from the State of Delaware Code Book of 1915, Chapter 2, Section 10:  
"There are no provisions of law which define the boundaries of the ancient hundreds, nor are there any authentic records of the same".

The map manuscript was reviewed by Mr. Frank Yearsley, fisherman at Port Penn, Delaware and a resident of the area for 65 years; by Mr. Horace S. Casperson, a fisherman residing on the Salem River for 75 years; and by the Engineer for New Castle County. They could find no errors.

Submitted  
15 November 1948

*John D. Weiler*  
John D. Weiler  
Photogrammetrist



NONFLOATING AIDS ~~FOR CHARTS~~ FOR CHARTS

TO BE CHARTED ~~FOR CHARTS~~ STRIKE OUT ONE

New Castle, Delaware 26 July 1946

I recommend that the following objects which have ~~(to be charted)~~ been inspected from seaward to determine their value as landmarks, be charted on ~~(charts)~~ the charts indicated I. Y. Fitzgerald, Engr. Aid ~~(charts)~~ E. L. Jones,  
The positions given have been checked after listing by Chief of Party

STATE	CHARTING NAME	DESCRIPTION	SIGNAL NAME	POSITION				METHOD OF LOCATION AND SURVEY NO.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
				LATITUDE		LONGITUDE							
				°	'	°	'						
Delaware	OLD REEDY ISLAND LIGHT		Reedy Island Lt	39 30	85.1	75 34	228.6	NA	1927	Tr1	1933	X	294
	BAKER RANGE FRONT		Baker Range Fr.	39 30	1021.5	75 34	2.5	NA	1927	Tr1	1933	X	294
	BAKER RANGE REAR		Baker Range R.	39 32	823.0	75 34	304.9	NA	1927	Tr1	1933	X	294
	CHESAPEAKE-DELAWARE CANAL No. 1		G-D Canal Breakwater	39 33	1124.6	75 33	1025.2	NA	1927	Tr1	1933	X	294
	CHESAPEAKE-DELAWARE CANAL No. 2			39 33.8		75 33.6		NA	1927	Rad. Plot	1946	X	294
	CHESAPEAKE-DELAWARE CANAL No. 3			39 33.4		75 34.0		NA	1927	Rad. Plot	1946	X	294
	CHESAPEAKE-DELAWARE CANAL No. 4			39 33.7		75 34.0		NA	1927	Rad. Plot	1946	X	294
	CHESAPEAKE-DELAWARE CANAL No. 5			39 33.6		75 35.4		NA	1927	Rad. Plot	1946	X	294
	CHESAPEAKE-DELAWARE CANAL No. 8			39 33.4		75 35.9		NA	1927	Rad. Plot	1946	X	294
	CHESAPEAKE-DELAWARE CANAL No. 9			39 33.2		75 36.2		NA	1927	Rad. Plot	1946	X	294
	CHESAPEAKE-DELAWARE CANAL No. 12			39 33.4		75 37.2		NA	1927	Rad. Plot	1946	X	294
	CHESAPEAKE-DELAWARE CANAL No. 13			39 33.1		75 37.3		NA	1927	Rad. Plot	1946	X	294
	CANAL RANGE FRONT												

Chief of Party.

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 individual field survey sheets. Information under each column heading should be given.











GEOGRAPHIC NAMES

34  
Calls for official  
name of Twp.

- Abbots Meadow ✓
- Alloway Creek (U.S.B.G.N. decision) ✓
- Augustine Beach ✓
- Augustine Creek ✓
- Biddle Point ✓
- Bolls Creek → see Field Edit Report
- Black Ditch ✓
- \* • Black Ditch Bar - ?
- \* • Bulkhead Shoal Channel - ?
- Canadas Beach ✓
- Cedar Creek ✓
- Chesapeake and Delaware Canal ✓
- Cox Neck Lane ✓
- Delaware ✓
- Delaware City ✓
- Delaware River ✓
- Dragon Creek ✓
- Dutch Neck ✓
- Dutch Neck Road ✓
- Eagle Island ✓
- Elsinboro Point ✓
- Elsinboro Twp
- Finns Point ✓
- Finns Point National Cemetery ✓
- Fort Elfsborg ✓
- Fort Delaware ✓
- Fort Dupont (See Field Edit Report, Miller) ✓
- Fort Mott military Reservation ✓
- Goose Pond ✓
- Hamburg Cove ✓
- Hamburg Road -
- Ice House Point ✓
- Lower Alloways Creek Twp ✓
- Lower Penns Neck Twp ✓
- Marsh Point ✓
- Mill Creek (two) ✓
- Mill Creek Cove ✓
- Money Island ✓
- New Castle County ✓
- New Castle Hundred ✓
- New Jersey ✓
- Oakwood Beach ✓
- Pea Patch Island ✓
- Pennsylvania R.R. ✓
- Pleasant Point ✓
- Port Penn ✓
- Reedy Island ✓
- \* • Reedy Island Bar
- \*\* • Reedy Island Dike ✓
- Reedy Point ✓
- Red Lion Creek ✓
- Red Lion Hundred ✓
- Reybold ✓
- Reybold Cove ✓
- Salem County ✓
- Salem Country Club ✓
- Salem Cove ✓
- Salem River ✓
- Scott Run ✓
- Shingle Landing ✓
- Sinnickson Landing ✓
- St. Georges Creek ✓
- St. Georges Hundred ✓
- Straight Ditch ✓
- Thowrntown ✓
- Union School ✓

\* Low water feature not delineated on map manuscript.  
 \*\* Not shown on final name standard sheet. Taken from Nautical Chart No. 294.

- add: Cumples Woods ✓
- Delaware City Branch Canal ✓
- Elfsborg Country Club ✓
- Hook Road ✓
- Lighthouse Road ✓
- Port Penn School -
- Reedy Point Bridge ✓
- Riverside Road -
- State No. 24 (N.J.)
- Governor Bacon Health Center (formerly Fort Dupont - see Field Edit Report) ✓
- Hickory Island ✓
- Supawna Meadow ✓
- Killbuck National Wildlife Refuge ✓

Names preceded by  
 are approved. 3/8/48  
 L. Heck  
 Final check 10-3-49

Review Report T-8753  
Topographic Quadrangle  
3 October 1949

34. Recoverable Topographic Stations

Forms 524 were filed for seventeen stations:

STEW	1946			
YANE	1946			
SPOT	1946			
TAME	1946			
LIGHT	Chesapeake & Delaware Canal	No. 2		
"	"	"	No. 3	
"	"	"	No. 4	
"	"	"	No. 5	
"	"	"	No. 8	
"	"	"	No. 9	
"	"	"	No. 12	
"	"	"	"R.R."	13
"	Delaware City Branch	No. 2		
"	"	"	No. 3	
"	Pea Patch Island Dike Gap, 1948			
"	Chesapeake & Delaware Canal Buoy 6-A			
R.M. FINN,	1934			

41. Field Check.--An additional field check has been requested for questionable items concerning bridges, boundaries, lights, etc. This check is to be made in conjunction with field edit operations for topographic quadrangle T-8747C. *See item 68 Desc Report F-8751*

43. Comparison with Previous Topographic Surveys.--

T- 138	1:10,000	1841	(no contours)
T- 140	1:10,000	1841	" "
T- 155	1:20,000	1842	" "
T- 156	1:10,000	1853	(form lines )
T-1505a	1:5,000	1882	" "
T-1505b	1:10,000	1882	" "
T-1511b	1:10,000	1882	(no contours)
T-1547a	1:20,000	1882	" "
T-1550	1:20,000	1883	" "
T-2214	1:2,400	1896	" "

This map, T-8753, supersedes the above listed surveys for nautical charting purposes.

44. Comparison with Existing Topographic Quadrangles.--

Wilmington	USGS	1:62,500	ed. 1906	ref. 1944
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45. Comparison with Nautical Charts.-

294	1:40,000	Sept. 1943	rev. Apr. 1949
570	1:20,000	Feb. 1947	rev. Nov. 1948

The light near the east end of the southern breakwater at the Reedy Point entrance to Chesapeake and Delaware Canal is listed "Fl.G." in the Light List, whereas the triangulation station for the light describes it "Flashing White". This discrepancy will not be evident on the printed quadrangle because the triangulation station will be labeled "LIGHT".

See also Field Edit Report (Weiler)

Reviewed by:

Lena T. Stevens  
Lena T. Stevens - 10-3-49

APPROVED:

A. V. Griffith  
Chief, Review Section F.H.M.  
Division of Photogrammetry

A. Edmonston  
Chief, Nautical Chart Branch  
Division of Charts

O.S. Reading  
Chief, Div. of Photogrammetry

W.M. Sciffe  
Chief, Div. of Coastal Surveys

Changes to T-8753

Subsequent to Final Review

Despite Field Edit of this quadrangle certain discrepancies remained that required a subsequent check in the field. As a result of this investigation the only changes which require further explanation are those made to the boundary on the New Jersey side to the Killcohook National Wildlife Refuge and to Ft. Mott State Park.

The areas north and east of Finns Point National Cemetery, and the area west of the road leading to the cemetery are not a part of the wildlife refuge or a part of the Ft. Mott State Park, and although these areas are Federal property no disposition has been made of them.

L. M. J.

2-5-51