# 8774

Ling 71 No. 294

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

# DESCRIPTIVE REPORT

Type of Survey PHOTOGRALMETRIC SHORELINE

Field No. PH -7(L6) C Office No. T-8774

LOCALITY

State NEW JERSEY, DELAWARE

General locality DELATIARE RIVER

Locality GOOSE POUD TO NEW CASTLE

194 B...

CHIEF OF PARTY

E. L. Jones, Field Office

T. B. Reed Baltimore Photo. Office

LIBRARY & ARCHIVES

DATE October 4,1951

B-1870-1 (1)





#### DATA RECORD

T- 8774

Quadrangle (II):

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

Field Office:

Chief of Party:

New Castle, Delaware

E. L. Jones

Compilation Office: Chi 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-

Photogrammetry Office Files,

Completed survey received in office: 4-22-49

Reported to Nautical Chart Section: April 1949

Reviewed: Aug. 5, 1949

Applied to chart No. 294

Date: 2 Feb. 1949 (partial)

2 Mar. 1951

Redrafting Completed:

Registered: 26 July, 1951

Published: -

Compilation Scale: 1:10,000

Published Scale:

Scale Factor (III): 1.000

Geographic Datum (III): N.A. 1927

M.H.W

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

Reference Station (III): FORT MOTT, 1933

Iat.: 39 36' 13.419" (413.8 m) Long.: 75° 33' 13.810" (329.5m)

Adjusted

XBSTEGKBRUG

State Plane Coordinates (VI):

4.61, 348.16 (Del) 1,750, 015.01 (NJ)

Y = 5-84, 110.01 (Del) 281,827.51 (NJ)

Military Grid Zone (VI)

# PHOTOGRAPHS (III) 75th meridian

	1/	A11 11101 TAM	••	
Number	Date	Time	Scale	Stage of Tide
46-D-1464 to 1467 46-D-1988 46-D-1994 to 1996	3/12/46 " 3/12/46	1205 1235 1255	1:10,000 1:10,000 1:10,000 1:10,000	4.1' above MLW 1.4' above MLW 1.1' above MLW 1' above MIW
46-D-2002 to 2007 4c J-2041 to 2048		1305 1345	1:10,000	0.6' above MLW

Tide from (III): Actual tide observations at Philadelphia corrected to 'New Castle to Delaware City'

Mean Range:

5.21

Spring Range:

5.71

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

Field Inspection by: E. L. Jones

date: April through September 1946

Field Edit by: 7-8751 7-8753

date: /948

Date of Mean High-Water Line Location (III):
Same as date of photographs supplemented with field inspection obtained during April--September 1946.

Projection and Grids ruled by (III) T.L.J.	date: Sept. 10, 1946
" " checked by: T.L.J.	date: Sept. 10, 1946
Control plotted by: Leroy A. Menasack	date: Jan. 14, 1947
Control checked by: George O. Fellers	date: Jan. 14, 1947
Radial Plot by: H.R. Rudolph	date: Sept. 1947
Detailed by: Ruth M. Whitson	date: 7-28-to 8-27-47 9-8- to 10-10-47 10-20 to 10-22-47
Reviewed in compilation office by: Raymond Glaser	date: 10-29 to 11-4-47

Elevations on Field Edit Sheet checked by:

date:

#### STATISTICS (III)

Land Area (Sq. Statute Miles): 6

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

Shoreline (Less than 200 meters to opposite shore): 33 statute miles (measured along the center line of stream)

Number of Recoverable Topographic Stations established: 4

photo hydro points

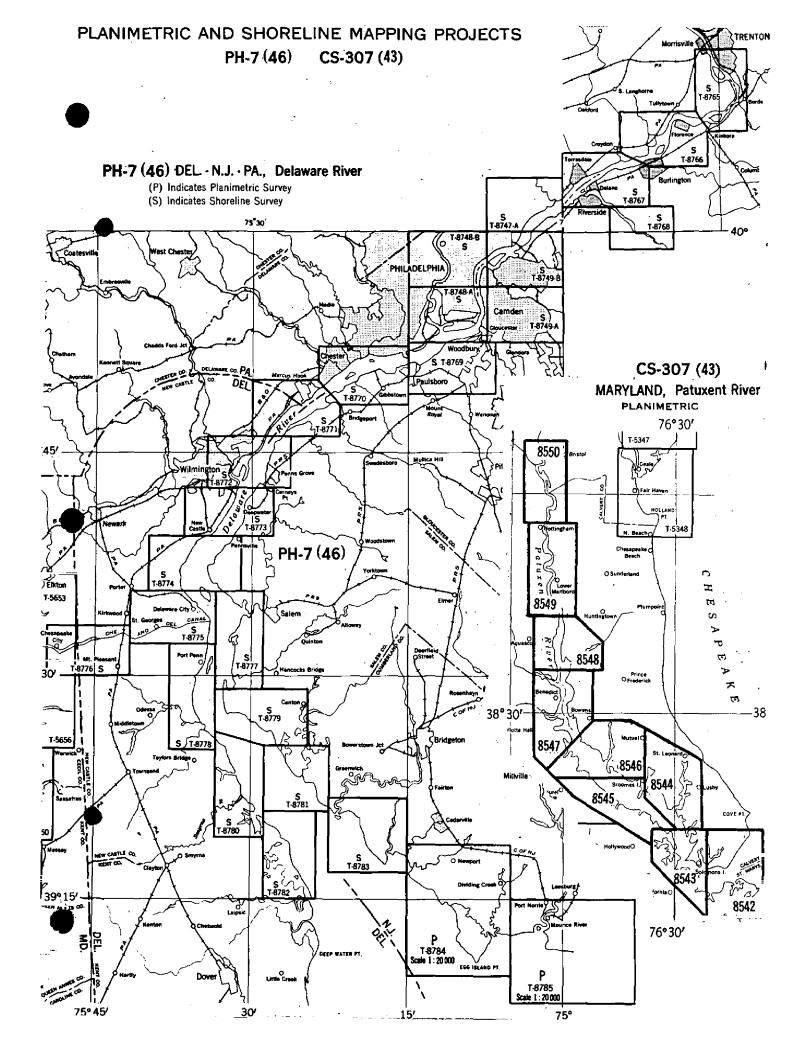
Number of Memponenty Mydwographka Nikakiana kalocated by radial plot: 6

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:



#### FIELD REPORT

SHORELINE MANUSCRIPT, SURVEY NO. T-8774

The area of this shoreline survey is in the area covered by Topographic Surveys Nos. T-8753 and T-8751. For field data covering Survey No. T-8774, refer to the field reports of the above mentioned topographic surveys.

#### RADIAL PLOT REPORT

PROJECT NO. PH-7 (46)-C

DELAWARE RIVER

SURVEY NO. T - 8774

#### 1. GENERAL DESCRIPTION

Survey No. T-8774 is one of twelve shoreline maps in sub-project No. Ph-7 (46)-C located along the Delaware River between Pea Patch Island and New Castle Delaware. This survey will be compiled in accordance with instructions dated 25 March 1946 and 19 July 1946 by graphic photogrammetric methods. Instructions filed in Div. Photogram office files.

#### 2. LAYOUT

The layout of the map, horizontal ground control, and photograph centers are shown on the attached sketch.

#### PHOTOGRAPHS '

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

#### 4. MANUSCRIPTS

The projection sheet for this radial plot was ruled with polyconic projections; scale 1:10,000, New Jersey State Grids, and Delaware State Grids (5000 ft. intervals). The projection and grid lines were ruled on acetate with the ruling machine and checked in the Washington Office.

#### 5. CONTROL

Since sufficient previously established horizontal control stations were available, no new stations were established by the field party.

The field party recovered 17 horizontal control stations in the area of this survey, 12 of which were identified.

#### 6. FIELD INSPECTION

The field identification of the horizontal control was very good except as follows:

PEA PATCH ISLAND DIKE, MIDDLE RIVER BEACON, SOUTH END OF DIKE, 1933, Pricked direct, identified as a Non-floating Aid to Navigation. Radially plotted position falls approximately 14 millimeters southwest of geographic position.

FINN, 1934. - The geographic position of the substitute point identi-

#### 6. FIELD INSPECTION (Continued)

fied for this station could not be computed because the object initialed upon did not have a geographic position; however, Reference Mark 10.2 was identified in the compilation office from data furnished by the field party and used to control the photographs.

#### 7. SUMMARY

The selection and identification of substitute stations and the identification of control was very good except as mentioned in paragraph No. 6.

The distribution of control was good except in the southwestern portion of the survey.

The number and distribution of photographs was adequate for delineation; however, an additional flight in the northwestern portion of the survey would have been desirable to strengthen the radial plot.

#### DETAILS OF RADIAL PLOTTING

- 8. The scale of the projection sheet was determined in the Washington Office. Since the horizontal control was adequately distributed it was decided the plot could be run more economically by orienting the photographs directly under the map projection.
- 9. In order to supplement the horizontal control plotted on the projection sheet and to insure a good junction between this plot and Surveys Nos. T-8775 and T-8777 to the south, pass points previously established on these surveys and common to Survey No. T-8774 were transferred thereto. In addition several pass points established by the 1:20,000 scale plot common to this area were also transferred to Survey No. T-8774 by the following method:-

Templets were made by placing a celluloid sheet over the 1:20,000 projection sheet and drawing radial lines through intersections of projection lines, grid lines, or a projection line with a grid line, using the pass point as the center. A minimum of four radials were drawn. The templets were then superimposed on the 1:10,000 scale projection sheet for Survey No. T-8774 and oriented with the radial lines, which had been extended, passing through the common intersections of projection lines, grid lines, and grid lines with projection lines. The pass point was then pricked through the templet to the projection sheet.

- 10. The radial plot was then made by sliding the photographs directly beneath the projection sheet and orienting the control pricked thereon to its corresponding plotted control station. Radials were then drawn on the projection sheet through all selected pass points. All horizontal control identified on the photographs was "held to" tangentially or better except the two stations discussed under paragraph No. 6. FINN R.M. No. 2 which was identified in the compilation office was also "held to" in the plot. Satisfactory results were obtained.
  - 11. The positions of the pass points determined by radial intersection and of photograph centers determined by resection were then pricked directly on the projection sheet.

12. The positions of all pass points and photograph centers are within 0.5 mm of their correct geographic positions.

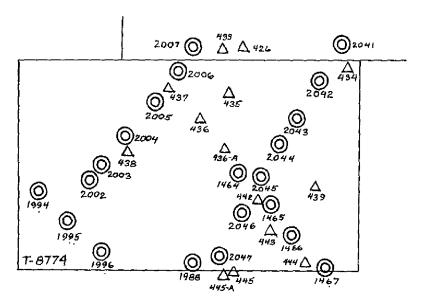
Approved and forwarded 12 September 1947

Respectfully submitted 3 September 1947

Officer in Charge

Baltimore Photogrammetric Office

	NO.	NAME OF STATION	METHOD OF IDENTIFICATION
	426	NEW CASTLE, 1933	Substitute Station
	433	BULKHEAD BAR FRONT RANGE LIGHT	No recovery
	434	PENNSVILLE TRINITY M.E. CH.SP. 1933	Pricked direct
	435	PEA PATCH ISLAND DIKE UPPER RIVER BEACON N. END OF DIKE, 1933	Pricked direct
	436	PEA PATCH ISLAND DIKE MIDDLE RIVER BEACON S. END OF DIKE, FLASHING GREEN, 1933	Pricked direct differs from listed 6.1's. Sta. reporter destroyed."
	436A	DIKES END (USE) 1898	Pricked direct.
	437	NEW CASTLE DELAWARE RAYON CO. N.W. STACK, 1933	Recovered, Not identified
	437	NEW CASTLE DELAWARE RAYON CO. S.E. STACK, 1933	Recovered. Not identified.
	438	HAMBURG SEXTANT (USE), 1932	Pricked direct -
•	439	FINNS POINT REAR RANGE LT., 1933	Pricked direct
	442	FORT MOTT NAT. CEM. MONUMENT 1933	Pricked direct
	443	FORT MOTT, 1933	Recovered, Not identified
	443	FORT MOTT, (USE) 1933	Recovered, Not identified
•	<i>երեր</i> եր	FINN, 1934	Substitute Station. RM2, Pricked direct in compilation office. fm. 524
	445	PEA PATCH ISLAND LIGHT, 1933	Pricked direct
·	445A	FORT DELAWARE (USE), 1937	Substitute station 3 55
	437	NEW CASTLE DELAWARE RAYON CO TALL BLACK WATER TANK, 1933	Pricked Direct.



LEGEND

- O Field Photograph
- Office Photograph
- △ Horizontal Control(see attached list for names of stations)

LAYOUT SKETCH
for
SURVEY NO. T-8774.
Project No. Ph-7-(46)-C

CASTLE , r. 1946	SOURCE OF DATUM		LATITUDE OR # COORDI	COORDINATE	DISTANCE FROM GRID IN FEET.	DATUM	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE	<del></del>	FACTOR DISTANCE FROM GRID OR PROJECTION LINE
946	-	LONG	UDE OF X	LONGITUDE OR X-COORDINATE	OR PROJECTION LINE IN METERS FORWARD (BACK)	CORRECTION	IN METERS FORWARD		IN METERS FORWARD (BACK)
	1	. 39°	391	29.124"			898.2 (952.2)	.2)	
	i	75°	331	44.056"			1050:3 (380.1	. j.	
SUB. STA. NEW		39°	391			•	831.9 (1018.5	8.5)	Remand from
	=	75°	331				1022.6 (407.8)	.8)	monwheigh
BULKHEAD BAR FRONT G-1751	=	. 36	391	18.727"			577.6 (127)	(1272.9)	
		75°	34.1	23,460"	~		559.3 (871.1)	.1)	
Pa	51	.39	391	05.934"			183.0 (1667.4)	(4.70	
20 1		75°	31,	15.282"			364.3 (1066.2)	6.2)	
1933, r. 1946 '		;	-   						
NEW CASTLE, DELA- G-1751	751 "	. 39°	- RX	47.475"			1464.2 (386.2)	.2)	
BLACK WATER	<u> </u>	75°	351	35.112"			837.2 (593.4)	(7.5	
TANK, 1933; r.	<u> </u>							٠	
			į						
NEW CASTLE, DELA- G-1751 WARE RAYON CO.	= 	. 39°	381	14.366"	•		1460.8 (389.6)	(9.	
NW STACK, 1933; r.1946.		75°	351	34.588"			824.7 (605.9)	(6.9)	
EW CASTLE, DELAWARE G-1751 AYON CO. SE STACK, P. 175	12.	. 39•	381	47.160"			1454.5 (395.9)	(6.9	
1933, r. 1946	[	75°	351	34,109"			813.3 (617.3)	7.3)	
PEA PATCH ISLAND		. 39°	88	41.82"			1289.8 (560.6)	(9.6)	
	#	75°	341	06.75"			160.9 (126	(1269.7)	, , , , , , , , , , , , , , , , , , ,
OF DIKÉ, FLASHING Pg. L. GREEN, 1933	125						-		
SLAND G-17		36	381	04.65"	north ward		743.4 (1505 0)	6	ally platted
P.	125 "	75°	34,1	46.57"	53 60 75 75		7	3)	(fm 567)

371 40,390" 371 40,390" 361 27.852" 321 03.310" 321 03.310" 361 41.741" 331 23.196" 361 13.419" 361 13.419" 361 13.810" 361 13.786" 331 13.786" 331 13.786" 351 32.866" 351 32.866"	DISTANCE FROM GRID IN FEET.  OR PROJECTION LINE IN METERS  FORWARD  (BACK)	N.A. 1927 - DATUM DISTANCE FROW GRID OR PROJECTION LINE JIN WETERS FORWARD (BACK) 1245.6 (604.8) 664.2 (766.8) 664.2 (766.8) 79.0 (1352.2) 79.0 (1352.2) 79.0 (1352.2) 413.8 (1436.6) 329.5 (1102.0)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN WETERS FORWARD (BACK)
SEXTANT G-1664 N.A. 39° 37' 40.390"  ), 1932		(181) (181) (195) (195) (195) (195) (196)	
SEXTANT G-1664 N.A. 39° 37' 40.390"  ), 1932			
AR G-1751 39° 37' 01.063"  3. Pg. 125 " 19° 32' 03.310"  NU-Pg. 125 " 1946 3 G-1664 " 197° 33' 23.196"  Pg. 74 " 29° 36' 13.419"  Pg. 74 " 29° 36' 13.419"  Pg. 77 " 39° 36' 13.786"  Pg. 79 " 39° 36' 13.786"  Pg. 79 " 39° 35' 13.73"  G-1913 " 39° 35' 14.552"  G-1913 " 39° 35' 14.552"			
751 39° 37' 01.063" 75° 32' 03.310" 75° 32' 03.310" 75° 34' 41.741" 75° 33' 23.196" 75° 33' 13.419" 75° 33' 13.810" 75° 33' 13.786" 75° 33' 13.786" 75° 33' 13.786" 75° 32' 14.552" 75° 32' 14.552" 75° 33' 13.856" 75° 32' 14.552"			
51   39° 37' 01.063"   75° 32' 03.310"			
751		-   -   -	
125 " 75° 32° 03.310°° 125 " 39° 36° 41.741°° 564 " 39° 36° 13.419°° 564 " 75° 33° 13.810°° 564 " 39° 36° 13.786°° 79° 36° 13.786°° 713° " 39° 35° 13.866°° 136 " 39° 35° 13.866°° 136 " 75° 32° 14.552°° 136 " 39° 35°			
125		<u>}</u>	
125 " 75° 33° 23.196"   564 " 39° 36° 13.419"   564 " 75° 33° 13.810"   564 " 75° 33° 13.810"   77° 39° 36° 13.786"   71° 39° 35° 14.552"   75° 32° 14.552"    75° 32° 14.552"   75° 32° 14.552"   75° 32° 14.552"   75° 32° 14.552"   75° 32° 14.552"   75° 32° 14.552"   75° 32° 14.552"   75° 32° 14.552"   75° 32° 14.552"   75° 32° 14.552"   75° 32° 14.552"   75° 32° 14.552"   75° 32° 14.552"   75° 32° 14.552"   75° 32° 14.552"   75° 32° 14.552"    75° 32° 14.552"    75° 32° 14.552"    75° 32° 14.552"    75° 32° 14.552"    75° 32° 14.552"    75° 32° 14.552"     75° 32° 14.552"     75° 32° 14.552"     75° 32° 14.552"		·      .	
564 " 39° 36' 13.419"   364   13.419"   564   39° 36'   13.786"   39° 36'   13.786"   313   313   32.866"   313   32.866"   33° 35'   32.866"   33° 35'   32.866"   33° 35'   32° 35'   33° 35° 35°   33° 35° 35°   33° 35° 35°   33° 35° 35°   33° 35° 35°   33° 35° 35°   33° 35° 35°   33°		1 1 1.	77-74
5.E) <sub>G-1664</sub> " 39° 36' 13.810" Pg. 79 75° 33' 13.713" G-1913 " 39° 35' 32.866" Fg. 136 75° 32' 14.552" M. 39° 35!		l I.	
5.Elg1664 " 39° 36' 13.786" Pg. 79 " 75° 33' 13.713" G-1913 " 39° 35' 32.866" Pg. 136 " 75° 32' 14.552" M. 39° 35!		١.	
Pg. 79		425.2 (1425.2)	
1934 G-1913 " 39° 35' 32.866" 75° 14.552" 1934 R.W. " 39° 35!		327.2 (1104.3)	-
1934 R.M. " 39° 351	Destroyed		
1934 R.M. 39°			,
0110		1099.3 (751.1)	(+2-5 my-j)
(2		365.6 (1066.1)	
DIKES END (USE) U.S.E.D		1000.4 (790.0)	
1898 Dist. 75° 34' 18.887"		(50.5 (980.5)	
1 FT 3048008 WETER TO SUN GAGE AS	מייינונים כי כי		M-2388-12

#### COMPILATION REPORT

#### SHORELINE MANUSCRIPT, SURVEY NO. T-8774

T-8774 is one of 12 shoreline manuscripts in Project No. Ph-7(46)C 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 layout of control submitted to the Washington Office, 12 September, 1947. 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-8774, which was submitted to the Washington Office 12 September 1947. Precedes This compilation report.

#### 28. DELINEATION

The compilation is in accordance with the written instructions pertaining to Project No. Ph-7(46) C, dated 19 July 1946.

A portion of the apparent shoreline in Goose Pond is very indefinite on the photographs due to the fact that the area overflows. This area was carefully delineated however, making use of the grass in water symbol.

Photographic coverage was inadequate for the most westerly section of Pea Patch Island Dike.

#### 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 50%) was delineated in the compilation office after careful stereoscopic examination of the photographs.

#### 31. MEAN LOW WATER

It was generally noted that the low water line and the apparent shoreline were synomymous (See Field Report for Survey No. T-8753, Paragraph 8).

Only that portion of the mean low water line identified by the field party was delineated on the map manuscript.

#### 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.

(See Field Report for Surveys No. T-8751 and No. T-8753, paragraph 9).

#### 34. LANDMARKS AND AIDS TO NAVIGATION

Four (4) three point sextant fixes were made by the field party to determine the azimuth of navigational ranges on New Castle Range and on Bulkhead Bar Range.

After these sextant fixes were carefully plotted on the manuscript, it was found that the two fixes on Bulkhead Bar Range could not be held together in azimuth with Bulkhead Bar front and rear range lights.

See form 567 submitted with reports for Topographic Surveys Nos. T-8751 and T-8753.

#### 35. HYDROGRAPHIC CONTROL

Six (6) photo hydro points.

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

#### 36. LANDING FIELDS AND AERONAUTICAL AIDS

(See Field Report for Survey No. T-8751, Paragraph 13).

#### 38. GEOGRAPHIC NAMES

Geographic names were taken from final names standards, dated 12/18/36, furnished by the Washington Office. A list of geographic names is attached to this report.

It is believed that the geographic name "Finns Point National Cemetery" appearing on the final name standard may be in error since a triangulation station in this area is known as "Fort Mott National Cemetery Monument".

#### 39. JUNCTIONS

Junctions with Surveys Nos. T-8777 and T-8775 to the south have been made and are in agreement.

Junction with Survey No. T-8773 to the northlas been made and is in agreement.

There are no other contemporary surveys.

T-8774 is a part of Topographic Surveys Nos. T-8751 and T-8753.

#### 40. BOUNDARIES

The limits of a U.S.Coast Guard Reservation has been delineated in accordance with field inspection data.

No other boundaries have been shown.

#### 41. BRIDGES

There are no bridges over navigable waterways in the area.

#### 44. COMPARISON WITH EXISTING TOPOGRAPHIC SURVEYS

Survey No. T-8774 has been compared in detail with the U. S. Geological Survey, Wilmington Quadrangle, scale 1:62,500 and was found to be in fair agreement. However, a large portion of Goose Island Flats which has been filled in, and around which a rock bulkhead has been built, does not appear on the quadrangle. A large pond inland from Reybold Cove also does not appear on the quadrangle.

#### 45. COMPARISON WITH NAUTICAL CHARTS

T-8774 has been compared with Nautical Chart No. 294, scale 1:40,000 and found to be in fair agreement.

The following topographic information shown on T-8774 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 the chart:

None.

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

Respectfully submitted 23 October 1947

Engineering Draftsman Compilation and Descriptive

Report

Cart ographer

Photogrammetric Office

Reviewer

Approved and forwarded 13 November 1947

Officer in Charge

Baltimore Photogrammetric

Office

#### GEOGRAPHIC NAMES

```
· Deemers Beach
· Delaware River
 .. Dobbinsville
 . Finns Point
                                            official name of cometery
 Finns Point National Cemetery ( this
                                           situated in Fort Moth Military
Fort Mott
Gambles Gut (Pending with USBHN)
                                            RESErvation - War Dopt. Doc. No

    Goose Pond

· Hamburg Cove
Hamburg Road
♣. Hoppemense Creek
· Kelly Point
Lincoln Park
**Miles Creek
.. Will Creek (N. J. side)
  Newark & Dolawaro City Branch (P. B. & W) . . Pennsylvania R. R.
. *Pea Patch Island
· Penns Beach .
· Reybold Cove (Preferably omit, as very little of tenture is on this map)
Stonebank Creek

    Tagg¥rt Properties
```

.. New Castle

. Red Lion Creek ... Killcohook National Wildlife Refuge (official name)

Tom Creek (omit this name as entirely unknown locally).
"Army Creek (pending with U.S. 13.6.N.)

Names preceded by are approved. 8-5-49 L. Heck

#### LIST OF DESCRIPTIONS OF PHOTO HYDRO POINTS

Number	Description	Pricked on Photo. Number
5101	North Gable (Penns Beach Yacht Club House)	2043
5301	S.W. Corner of Pier	1465
5302	Top of Observation Tower	1465
5303	S.W. Corner of Pier	1465
5308	Finns Point Front Range Light	1467
5309	Firms Point Jetty Light	2045

Listed by: Auth

Engineering Draftsman

Checked by:

Cartographer

#### Review Report T-8774 Shoreline Survey 5 August 1944

#### 34. Landmarks and Aids to Navigation:

- 1. New Castle Range: New Castle Range Rear Lt. was incorrectly pricked on two of the photographs so that the radial cuts placed it out of its true position. By taking cuts through correctly pricked points the light position on the manuscript was moved westward 3.3 mm. The position of the light has been corrected on the Form 567.
- 2. Bulkhead Bar Rango:-The sextant fix location for the northern "fix" point in this range was deleted from the map manuscript because it did not fall on the range azimuth. Azimuths of range were drawn on the manuscript.

Ten Aids to Mavigation lie within the area of T-8774:

```
** Finns Point, Range Front ** 55 ** Fm. 567 (under T-8753)

**Finns Point, Range Rear ** 55 ** " " T-8751

**New Castle, Range Rear ** 55 5 ** " " " T-8751
                ·Bulkhead Bar, Range Front * 1884

·Finns Point Jetty Light
                                                                                                          #
                Pea Patch Island Dike, Upper Lactor 4.544

Pea Patch Island Dike, Middle Lactor 4.544
                                                                                                          **
                                                                                                          **
                                                                                                          Ħ
                                                                                             Ħ
                 • Pea Patch Island Dike, Gap Light " "
                                                                                                    T-8753
                  Fort Mott II nument
                                                          (40') Ldmk
```

35. Topographic Stations:-Forms 524 for IADD, 1946 and GALE, 1946 have been filed under T-8751.

#### 🛪 43. Comparison with previous Topographic Surveys:

```
1:2000
                                                      1822
            T-138
                                                                    (no contours)
                                                      1861
            T-140
                                1:10,000
                                                                    (no contours)
            T-156
                                1:10,000
                                                     1843 (no contours)
                                1:5000
            T-1505a
                                                     1882
                                                                    (with form lines)
T-1505b 1:10,000 1982 (with form lines)
T-151la 1:5000 1381 (with 20 ft. contour)
T-151lb 1:10,000 1882 (with 20 ft. contour)

7-8774 sepersed thee maps for nautical charting purposes
44. Comparison with Popographic Quadrangles:
```

```
US GS
    Hilmington
                 1:62,500
                            ed. Nov. 1906, rep. 1944
    Wilmington
                 1:62,500
                            ed. 1919 rep. 1921
 USE
                 1:125,000
                                 April 1942
USE Wilmington
```

#### 45. Comparison with Nautical Charts:

1:40,000 | Sept. 1943, rev. 7/19/48 No significant differences occur between the map and the chart. \* For contours and interior detail see contemporary surveys T-8751 and T-8753. The chart and the manuscript are in general agreement, except:

- 1. The railway paralleling the shore from New Castle to Delaware City has been abandoned.
- 2. A pier between Finns Point Jetty Light and Finns Point is in ruins.
- 3. A wreck lying in the east side of Pea Patch Island Dike and just north of the Gap Light does not appear on T-8774 (no field inspection data)

46. Adequacy of Results and Future Turneys.
This shouline map muts the Bureau requirement of accuracy and adequate for use as a base for hydro paper.
Reviewed by: surveys and nautical chart construction.

Lena T. Stevens

Approved by:

Chief, Review Section Kam, Division of Photogrammetry

Chief, Div. of Photogrammetry

Chief, Nautical Chart Branch Division of Charts

Chief, Div. of Coastal Surveys

MY

# 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:

<ul> <li>/ △ Fort Mott Monument, 1933</li> <li>(S) O Light on Point, N.W. of Monument</li> <li>O New Castle F. &amp; R. Range Light</li> </ul>	76°57'00"  46 43 30
2. \( \Delta\) Fort Mott Monument, 1933 (\( \mathbb{N} \)) O Light on Point, N.W. of Monument 0 New Castle F. & R. Range Light	71 18 00  62 10 00
At & points on Bulkhead Bar Range:	•
/ A Fort Mott Monument, 1933 (5) O Light on Point, N.W. of Mon. O Rear Range Light(New Castle Range	71°20'00" ge 63°18'30"
2. \( \Delta\) Fort Mott Monument, 1933 (**) O Light on Point, N.W. of Mon. O Rear Range Light(New CAstle Rang.	67°33100" deleted from 83 31 30 manuscript

# NAUTICAL CHARTS BRANCH

# SURVEY NO. *Z-8774*

### Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
2-49	294	Madros	Before After Verification and Review Partially
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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.

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