8765

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U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey PROUNCE AND TRIC SHOLKLINE

Field No.PH-7(1.6)P Office No. 1-8765

LOCALITY

State PENNSYLVANIA & NC. JERSEY

General locality DET NUMBER RIVER:

Locality MELIECLD ISLAND TO TRENTON, NEW JERS Y

194 9

CHIEF OF PARTY
R. J. Sipe, Chief of Field Party
T. B. Reed, Baltimore Photo. Office

LIBRARY & ARCHIVES

DATE October 4,1951

B-1870-1 (1)

DATA RECORD

T - 8765

Project No. (II):

Quadrangle Name (IV):

PH=7(46)F

Field Office (II):

Philadelphia, Pa.

Chief of Party: R. J. Sipe

Photogrammetric Office (III): Baltimore, Md.

Officer-in-Charge: Thos. B. Reed

Instructions dated (II) (III):

25 March 1946, 19 July 1946 Supplement 1, 14 June 1946 Supplement 2, 11 October 1946

Copy filed in Division of Photogrammetry (IV)
Office Files

Method of Compilation (III): Graphic compilation

Manuscript Scale (III): 1:10,000

Stereoscopic Plotting Instrument Scale (III):

Scale Factor (III): 1.000

Date received in Washington Office (IV): 3/17/49 Date reported to Nautical Chart Branch (IV): 3/24/49

Applied to Chart No.

Date:

Date registered (IV): 19 July 1951

Publication Scale (IV):

1:10,000

Publication date (IV): April 1951

Geographic Datum (III):

N.A. 1927

Vertical Datum (III):

Mean sea level except as follows: Elevations shown as (25) refer to mean high water Elevations shown as (5) refer to sounding datum i.e., mean low water or mean lower low water

Reference Station (III): CINDER, 1935

07¹ 52.95ⁿ (1633.1m) Long: 74° 44¹ 16.20ⁿ (383.6m)

Adjusted

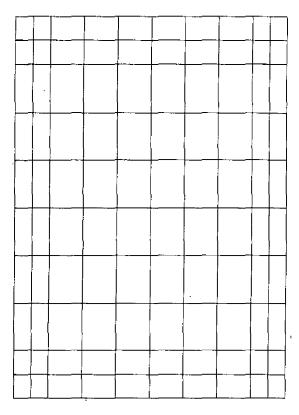
TABARRANX

Plane Coordinates (IV):

State: N.J. (green) Zone:
Pa. (red) Zone: South

Roman numerals indicate whether the Item is to be entered by (II) Fleld Party, (III) Photogrammetric Office,

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



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

. Je DATA RECORD

	Field Inspection by (II): S. J. Hathorn	Date:	12/1/47 to 1/30/48
	Planetable contouring by (II):	Date:	
	Completion Surveys by (II): R.A. HORN	Date:	4-15-49
	Mean High Water Location (III) (State date and method of location): Same as date of photographs supplemented by field inspect	ion.	
	Projection and Grids ruled by (IV): T. L. Janson	Date:	10/1/47
	Projection and Grids checked by (IV): T. L. Janson	Date:	10/1/47
	Control plotted by (III): L. A. Senasack	Date:	3/23/48
	Control checked by (III): M. F. Kirk	Date:	<u>14/8/148</u>
	Radial Plot ocesses representative: Control constant by (III): F. J. Tarcza	Date:	l/13/l8
	Planimetry	Date:	•
	Stereoscopic Instrument compilation (III): Contours	Date:	
I	Manuscript delineated by (III): D. A. Maskell	Date:	11/24/48 to 1/12/45 2/10/49 to 3/2/49
ŗ	Photogrammetric Office Review by (III): J. W. Vonasek	Date:	3/7/49 to 3/11/49
	Elevations on Manuscript checked by (II) (III):	Date:	

Camera (kind or source) (III): U.S. Coast and Geodetic Survey, single lens type "D" focal length 12".

PHOTOGRAPHS (III)							
Number	Date	Time	Scale	Stage of Tide			
46-D-2081 to 46-D-2095	3/12/46	1425	1:10,000	1.3° above MLW			
46-D-2104 to 46-D-2108	3/12/46	3 1444	1:10,000	1.4' above MLW			

Tide (III)

Data on reverse side of field photographs

Reference Station: Subordinate Station: TRENTON, N.J.

Subordinate Station:

L. Mr. Joigh Washington Office Review by (IV):

Final Drafting by (IV):

Drafting verified for reproduction by (IV):

Proof Edit by (IV):

Land Area (Sq. Statute Miles) (III): 10

19.4 Shoreline (More than 200 meters to opposite shore) (III): Shoreline (Less than 200 meters to opposite shore) (III): 23

Control Leveling - Miles (II):

Number of Triangulation Stations searched for (II): 60

Number of BMs searched for (II): Number of Recoverable Photo Stations established (III): 10

Number of Temporary Photo Hydro Stations established (III): 30 29

Remarks:

Ratio of Mean | Spring Ranges Range Range

Date: April 10, 1951

Date:

Date:

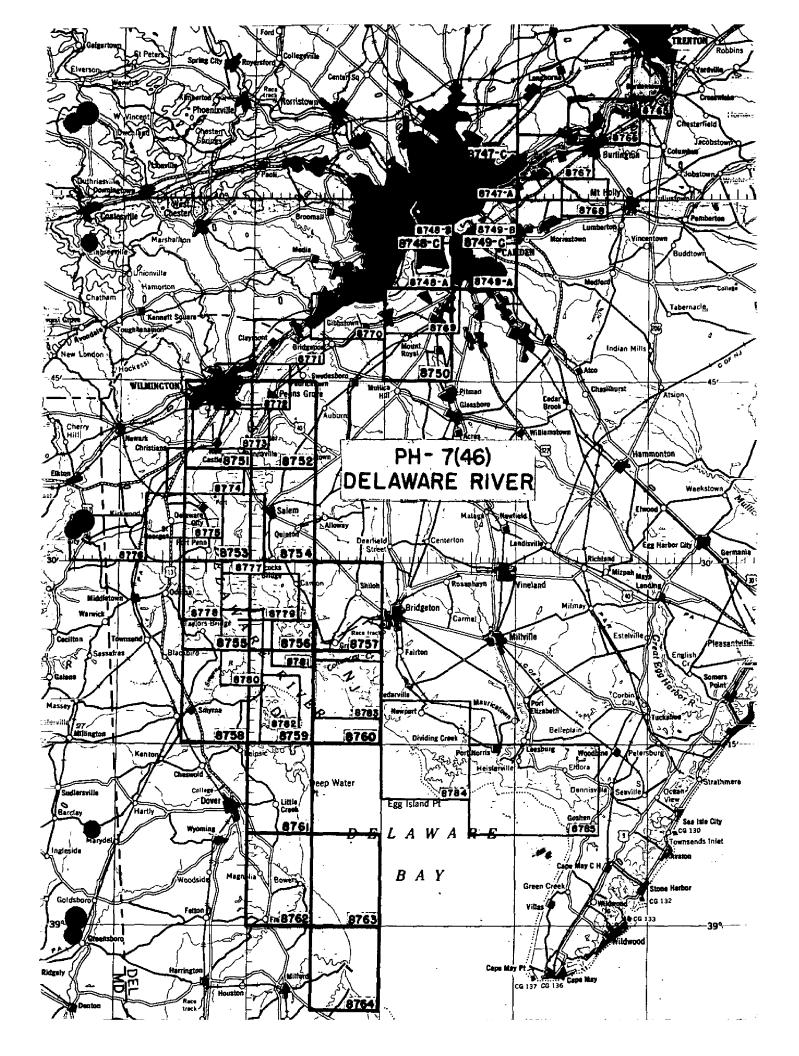
Identified:

Identified:

Recovered:

Recovered:

54



Summary T-8765

This is the first in a series of 24 shoreline maps 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 sheets at a scale of 1:10,000 furnish material for revision of the nautical chart, and for a series of 18 topographic compilations at a scale of 1:20,000 which are to be published by the U.S. Geological Survey. Since no topographic compilation covers this sheet this shoreline survey furnishes material for the revision of Nautical Chart 296 only.

FIELD INSPECTION REPORT
SHORELINE SHEETS T-8765 & T-8766
(74° 42') (40° 06')
(74° 46!) (40° 04!)
Project Ph-7(46)
Subproject F
Riley J. Sipe, Chief of Party

This report is for the entire area covered by Shoreline Sheets T-8765 & T-8766, and all information pertaining to the two sheets is included within this single report.

All phases of field work were completed in accordance with the Director's Instructions, Project Ph-7(46), dated 25 March 1946; Supplemental Instructions No. 1, dated 14 June 1946, and Supplemental Instructions No. 2, dated 11 October 1946, except for deviations herein noted.

Actual field work was completed by the writer, Stanley J. Hathorn, Photogrammetrist, during the period 1 December: 1947 to 30 January 1948.

1. Description of the Area:

These two sheets includes approximately 17 miles of the Delaware River south of Trenton, N. J. The railroad bridge at Trenton marks the upstream limit of navigation on the river, and also the approximate end of tidal influence in the river. The end of tidal influence is very definite; from a 6 ft. plus tide to rapids within a few hundred feet.

This portion of the river is characterized by well-defined banks, with the banks becoming increasingly prominent, especially on the N. J. side, by several large islands cut off from the shore by back channels, by wide mud flats that bare at low water, and by numerous hydraulic fills that now support scattered growths of small trees and other vegetation.

The Pennsylvania land area is comprised mainly of gently rolling farmland and woodland, and a long residential front in the vicinity of Bristol which is interspersed with occasional factory sites, and large water-filled aggregate pits in the vicinity of Pennsbury with sand and gravel loading terminal near the river.

Excluding Trenton, only the lower part of the New Jersey/land area is prominent for it's few large factories surrounded by small towns along the river. These factories depend almost entirely upon well-developed motor and rail transportation facilities. There is very little farm land near the river along this shore.

Prominent for their lack of development are the Duck Island and Biles Island shores. Duck Island is bounded on the inland side by The Delaware and Raritan Canal (abandoned), and a two track line of the P.R.R. Immediately inshore of the canal and railroad is a large swamp riverward side of Crosswicks Creek.

Commercial river traffic consists principally of river barges transporting oil and coal to points along the N. J. shore; and sand and gravel leaving the Warner Sand & Gravel Co. along the Pa. shore for points downstream.

Pennsbury, Wm. Penn's former homestead and now maintained by the state as a shrine, is located on the Pa. shore opposite Roebling, N. J.

During the summer, the river is dotted with small pleasure boats and floating piers in the vicinity of the towns and along the upper shore of Duck Island.

2. Completeness of Field Inspection:

Field inspection is believed to be adequate and complete with the exception of the following changes since photography which are left for planetable location during field edit:

- a. Roebling The shoreline immediately south of the J. A. Roebling Sons plant has undergone constant change since photography as a result of the plant dumping in the vicinity. However, the permanent offshore limits of the dump may be established by the time of field edit.
- b. South of Fieldsboro Shoreline change within the property limits, and a new railroad siding.
- Pa. shore opposite Newbold Island Shoreline change caused by river erosion between Δ Manor 1912 and Δ Birch 1935.
- d. Permacrete Corp. between Burlington and Florence New factory.

Interpretation of Photographs:

The field party was furnished single lens ratio; prints at 1:10,000 scale.

All photographs were sharp, and no difficulty was experienced in field interpretation. There are occasional narrow bands of large brush along the Pa. shore that flood at MHHW. The offshore edge of the brush should be delineated as the fast MHWL.

Notes on the photographs are believed to be adequate for office compilation.

See this paragraph in Field Inspection Report for T-8767 regarding U. S. Engr. Plans.

4. Horizontal Control:

a. <u>U.S.C.&G.S.</u> - Stations were recovered and identified in accordance with project instructions.

T-8766 - 85 stations were recovered in good condition, and the control is well distributed along both shores with the exception of the Pa. shore between Common Creek and Pennsbury.

T-8765 - 44 stations were recovered in good condition. Most of the stations are limited to the lower part of the sheet. Lack of photographic coverage prevented the identification of the azimuth mark, Carlsson-1933.

See paragraph 4 of Field Inspection Report for T-8767 regarding recovery of triangulated lts.

<u>U. S. Engineers</u> - Seven permanently monumented stations were recovered at well-spaced intervals along the upper limits of sheet T-8765 to supplement the limited U.S.C.&G.S. control.

Most of the stations in the lower part of the area had already been connected with the U.S.C.&G.S. control scheme, and were recovered as U.S.C.&G.S. stations.

See paragraph 4 of Field Inspection Report for T-8767 concerning use of U. S. Engr. Plans as horizontal control index for U.S.C.&G.S. and Engr. stations.

c. N.J.G.C.S. - Seven stations were recovered and five of the seven were identified.

Negative photostatic copies of the recovery notes were furnished Mr. Robert G. Blanchard, Topographic Engineer, Dept. of Conservation, Trenton, N. J.

5. Vertical Control:

No field work required.

However, reference is made to this paragraph in the Field Inspection Report for T-8767 regarding existence of other agencies control in the area.

6. Contours and Drainage:

Not applicable.

7. Mean High-Water Line:

Sufficient notes and symbolization are provided on the photographs for office delineation of the MHWL.

No appreciable changes were noted in the general MHWL between photography (spring range of tide) and field inspection. This is attributed to the character of the bank along most of the MHWL.

8. Low-Water Line:

See this paragraph in the Field Inspection Report for T-8767 concerning the Delaware River.

9. Wharves and Shoreline Structures:

Adequately covered on photographs.

10. Details Offshore from the High-Water Line:

Adequately covered on photographs.

11. Landmarks and Aids to Navigation:

All landmarks to be charted or deleted have been separately submitted on Form 567.

All landmarks were identified on the photographs. However, pricking cards were submitted for only those few triangulated landmarks intended for use in control of the radial plot. The other triangulated landmarks are identified on the photographs by their landmark designation, and followed by the Δ station name in parenthesis.

All other landmarks have been properly described on Form 524.

Three landmarks added since photography were located by sextant cuts from nearby horizontal control stations, and the observed sextant angles are given below:

Landmark	Instrument Sta.	Azimuth Station	Angle
STACK Hercules	N.J.G.C.S.Mon.8810	ΔBurlington, U.S. Pipe & Foundry Co. Tk 1935	46° 54' R
Powder Co. T-8766	ΔDuke Ecc≈1935	ABurlington, St. Pauls' Ch Spire- 1933	55° 56¹ L
	ΔBristol 2-1935	ABurlington.St. Marys' Ch Spire- 1933	98° 19' L
00 Qu 101	<u> </u>		 *-
TANK (ELEV)	Mon. 8810	U.S.Pipe Tk.	27° 13' R
Hercules Powder	Duke Ecc	St. Pauls Spire	51° 16' L
co. T ± 8766	Bristol 2	St. Marys Spire	91° 45° L
	·	<u> </u>	-
TOWER (RADIO) (wbud) T-8765	Awestbridge U.S.E.D. 1912	AMorrisville, Robertson Art Tile Co. Stack-1933	75° 56' L
•	ΔFerry-1928 (U.S.Engrs.)	LM STACK-1947 (American Br. Co.)	59° 35' R
	ATerrace-1939 (U.S.Engrs.)	Same as above	21° 23' L

All objects recommended for charting were inspected from the river for suitability as landmarks.

All fixed aids to navigation, including Air Beacon No.70 (2-1933), have been separately submitted on Form 567.

Points on all navigational ranges were located well beyond the useable limits of the ranges. A check point is provided for each sextant location. Sufficient information for plotting these points is given below:

a. Sextant observations with range lights as center object:

Range	Side Object	(1)	(2)
Bristol 7-8766	Δ U.S.Pipe & Foundry Tk-1935 Δ Bristol, Superior Zinc Corp. Stack-1933	37°22† 1 9° 39!	40°40! 23°45!
Kinkora T-8766	ΔP.R.P.Co.Stack-1933 Roebling Range Real Lt.	113°43! 14°39!	114°24' 15°18!
Trenton T-8765	ΔTrenton,Mott's W.T1933 ΔMorrisville,Art Tile Co. W.T1933		86°19° 113°45!

b. Ties from A stations:

Range	Instrum	ent S	<u>ta</u> .		Azimuth Sta.	Angl	<u>.e D</u>	istance
College Point	ΔBristo N Lt-19		TR		ABristol Br TR S Lt-1933	00°	001	257.01
(check)	ΔBristo S Lt-19		TR		ABristol Br TR N:Lt-1935	00°	00	283.01
		-	-	_		_	-	_
Burlington T-8766	ΔEl bow-	1935			△Florence,Pipe & Foundry Co.St Stack-1935		41'R -	43.01
	-	-	-	-		-		
Roebling 7-8766	∆Bluff-	1935	,		ARoebling, J.A. Roebling Co. Lettered W.T1		06 ¹ R.	80.01
	-	- .	•	-	- , -	-	- 0	
White Hill 7-8745	_		-		△Manual Trining Sch W.T1933			96.01
	(Pt. "A" card su			01	n photo 2087 and	pric	king	

c. Points pricked direct on photographs:

- (1) Newbold Range
- (2) Bordentown Range
- (3) Duck Island Range
- (4) Biles Island Range (Pricking cards submitted with field data.)
- d. Other: Florence Range Use Aflorence Center Line Upper U.S.E. +1935 as point on range.

12. Hydrographic Control:

Thirty photo-hydro stations in T-8765, and fourteen in T-8766 were identified and numbered on the photographs according to the standard system. Typed descriptions are submitted on the back of pricking cards alongwith the field data.

13. Landing Fields and Aeronautical Aids:

One small private airport, Skyhaven Aircenter - located in T-8765, is labeled on photo 2093.

Air Beacon No. 70(Δ -1933) was identified and a pricking card submitted with the fixed aids for T-8766. It is also included on the separatedly submitted Form 567 for fixed aids.

14. Road Classification:

Roads are classified in accordance with Photogrammetry Instructions No. 10, dated 14 April 1947, and Admendment, dated 24 October 1947.

15. Bridges:

All bridge information for the area covered by this report asslisted in the U. S. Engineer "List of Bridges over the Navigable Waters of the U.S.", dated 1 July 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 reported to the Local District Engineer:

PAGE NO. &LOCATION	SPANS	TYPE	HOR.	CL.	VERT.	GL.°
			1941	1947	1941	1947
			LIST	FIELD	LIST	FIELD
						Est. MHW)

Pages 16
ASSICUNK CR., N.J.
Broad St., Burlington 3 F 33.5' 29.7'
(center span)

Page 40 BLACK CR., N.J.

Bordentown, PRR 1 F 64.8 52.0

(1947 field measurement is clear channel distance between pier footings that bare at MLW.)

Bordentown.Route NO.2-1 F 3.65 6.0

Page 120 DELAWARE RIVER

Bristol-Burlington 6 VL 500.0' 515.0' (center span)

(1947 field measurement checks bridge plans.)
Trenton.Bridge St. 5 F 215.0' 211.5' 0.4' 23.0'
(Channel not navigable to (center span) (Flood HW) powerboats under this bridge).

(The clear width of the channel spans from left to right at the top of piers to the nearest foot are 212,220,214, and 169 respectively. The exact clear width of the center span at the top of the piers is 214.15 ft. The bridge piers are 20.4 ft. wide at the top and have a batter on each side of \$\frac{1}{8}\$ in. to 1 ft. (vert.).

PAGEINO. & LOCATION	SPANS	TYPE	HOR.	CL.°	VERT.	CL.°
			1941	1947	1941	1947
·		<u> </u>	LIST	FIELD	LIST	FIELD
					(Es	t. MHW)

Trenton, PRR 18 F(arch) 60.0 58.0 8.2 32.0 max. (Flood HW) 20.0 min.

Clearance of a private bridge in T-8765 at the Warner Co. sand and gravel loading basin, and not included in the Engineer List of Bridges, is shown on photo. 2082 in T-8765.

16. Buildings and Structures:

Adequately covered on the photographs.

17. Boundary Monuments and Lines:

Not applicable.

18. Geographic Names:

This was the subject of a special report by Mr. A. J. Wraight, Topographic Engineer, submitted during the summer of 1947.

Submitted 9 Feb 1948

Stanley J. Hathorn Photogrammetrist

Approved 17 Feb 1948

Riley J. Sipe Chief of Party

Box 8924, Tacony Sta. Phila 35, Pa.

6 February 1948

To:

@The Director

U.S. Coast & Geodetic Survey

Washington, 25, D. C.

Subject:

Discrepancies in Non-Floating Aid Descriptions

The following discrepancies in the 1946 Light List for The Atlantic and Gulf Coasts were noted during field inspection of Project Ph-7(46)FT

The list is limited to two obvious errors in height; and to dates that lights were rebuilt. The dates were secured as a result of an investigation of lights that were also triangulation stations.

However, it may be added that no noticeable descrepancies were monocountered in the published description of the general location of the lights, and of the supporting structures.

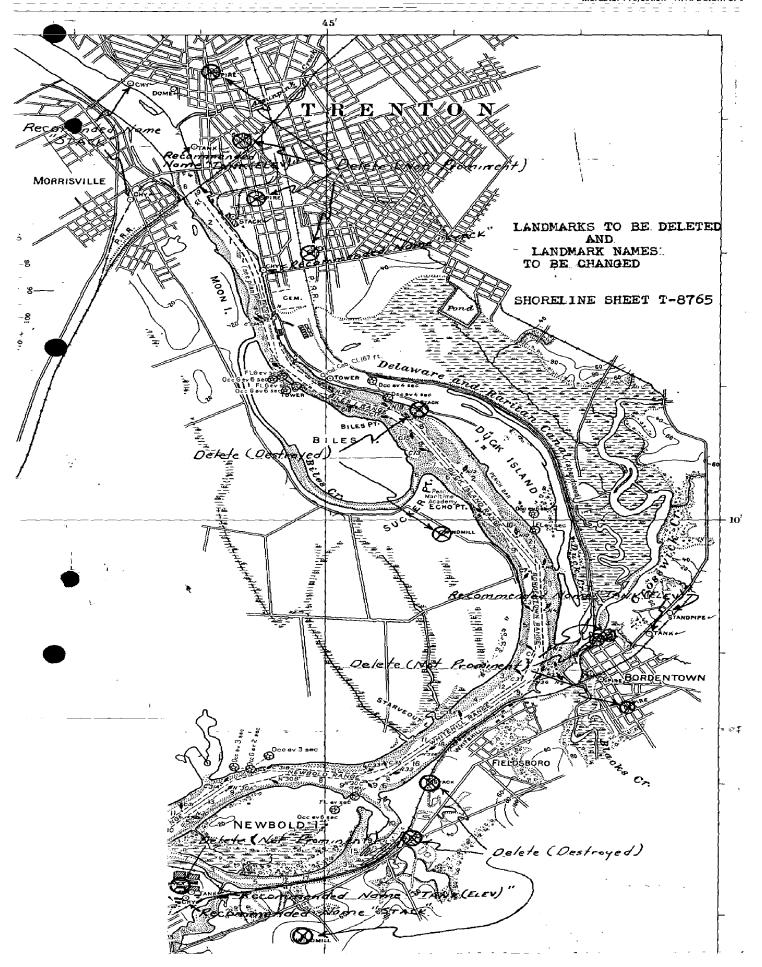
LIGHT	DISCREPANCY	SOURCE OF INFORMATION
Rancocas R Range Rear Rancocas R Range Front	Rebuilt: 1938	Notice to Mariners #16,dated 4-20-38 Same as above
Torresdale Range Rear	Moved 1936	Notice to Mariners #39,dated 9-23-36
Mud I Range Front	See Notices	Notice to Mariners #30,dated 7-24-35
Enterprise Range Lts	Moved 1936	Notice to Mariners #36,dated 9-2-36
Beverly Range Lts	Moved 1936	Notice to Mariners #32, dated 8-5-36
Groydon Aviation"-NY70	115 ft above water	-Field Measurement 1947 - S. J. H.

The sources of information were furnished by The Commander, 3rd Coast Guard District, New York 4, N. Y.

*Also #39,dated 9-23-36.

Stanley J. Hathorn: Photogrammetrist

ca: Lt. Comdr. Sipe.



RADIAL PLOT REPORT

PROJECT NO. PH-7(46)-F

SURVEYS NOS. T-8765, T-8766, T-8767, & T-8768

1. GENERAL DESCRIPTION

Surveys Nos. T-8765, T-8766, T-8767, and T-8768 are the four shoreline manuscripts which comprise the entire area of sub-project NO. PH-7 (46)F, located along the Delaware River between Torresdale and Trenton and along Rancocas Creek from its mouth to Hainesport. These surveys 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 maps, horizontal control and photograph centers is attached to this report.

PHOTOGRAPHS

Two types of photographs were used in the radial plot of these surveys. The photographs along the Delaware River were taken with the U.S.C.& G.S. Type D single lens camera, focal length 12 inches, at a contact scale of 1:16,000.

The photographs along Rancocas Creek were taken with the U.S.C.& G.S. Type C, single lens camera, focal length 6 inches, at a contact scale of 1:20,000. All photographs of both types were ratioed to a scale of 1:10,000.

4. MANUSCRIPTS

The projection sheets for these surveys were ruled on acetate, at a scale of 1:10,000, with the ruling machine and checked in the Washington Office. The polyconic projections were ruled on these sheets in black; the Pennsylvania South State grid, 5000-foot intervals, was ruled in red, and the New Jersey State grid, 5000 foot intervals, was ruled in green.

5. CONTROL

The field inspection party recovered 193 established horizontal control stations within the area of these surveys. Two other stations were not recovered but believed to exist. Of these recovered stations, 56 were identified as horizontal control stations, 42 were identified as lights, beacons or landmarks, and 95 were not identified on photographs. In addition, 21 horizontal control stations were recovered in area outside of, but adjacent to these surveys. Of these, 9 were identified as horizontal control, one was identified as a landmark, and 11 were not identified on photographs. No new horizontal control stations were established.

6. FIELD INSPECTION

The field inspection of the horizontal control was excellent, since only 10 out of the large number of control stations identified, (65 as horizontal control, and 43 as lights and landmarks) could not be held in the radial plot. At least three of these appear to have incorrect geographic positions. (See Par. 13)

7. SUMMARY

It would have been desirable to have a few additional control stations along Rancocas Creek particularly near the junction between Surveys T-8767 and T-8768. There are no U.S.C.& G.S. triangulation stations on Survey T-8768 and most of the N.J.G.C.S. monuments and N.J. Riparian and Stream Survey Monuments are near or outside the east boundary of this survey. Also the quality of photographs taken with the Type C camera was inferior to the others due to greater enlargement during ratioing, the season of the year and large number of tilted photographs. The quality of photographs taken with Type D Camera is very good. The number and distribution of all photographs is sufficient for a satisfactory radial plot.

DETAILS OF RADIAL PLOTTING

- 8. The scale of the projection sheet, 1:10,000, was determined by the Washington Office and all photographs were ratioed to this scale. The plot was made with vinylite and acetate templets. The vinylite templets were used with the Type D photographs and acetate templets with Type C photographs.
- 9. All control was first transferred to acetate base sheets with 5000-foot grids by matching the New Jersey State grid on projection sheets with the grid on base sheets. Templets were laid on the base sheets when making the radial plot.
- A large number of lights, stacks and water tanks were identified by field inspection party as landmarks and aids to navigation, instead of as control stations. The established positions of all of these, which had no record of having been moved or rebuilt, were also transferred to the base sheets and used in the radial plot.
- 10. The templets were laid in the usual manner, using first those templets which had most control stations and extending control by pass points across gaps between control stations. There was some difficulty in extending the radial plot across the area along Rancocas Creek near junction between Surveys T-8767 and T-8768 because of tilted photographs and inferior quality of photographs which made pricking of control and pass points difficult, but a satisfactory plot is believed to have been obtained.
- 11. After the radial plot was completed on the base sheets, the projection sheets were laid over the templets, again matching grid lines and control points. The photograph centers and pass points were then pricked directly on the projection sheets.

- 12. The positions of all pass points and photograph centers are within 0.5 millimeters of their correct geographic positions.
- 13. The following cantrol stations could be held in the radial plot:

FIORENCE, FLORENCE PIPE AND FOUNDRY CO., STEEL STACK, 1935 (Survey T-8766) Field edit reports otation destroyed v

Radially plotted position is 0.6 mm southwest of geograpic position.

SUB. PT. EAST, 1912 (Survey T-8766)

Radially plotted position is 6.5 mm southwest of geographic position. Elyich mipsturkfiel see Control Standposted Card fels (Form M-rrv6-rr) filed under T-8766. 4. M.G.

SUB. PT. ENTERPRISE C.L. (U.S.E.) 1935 (Survey T-8767).

Radially plotted position is 3.0 mm southwest of geographic position. Rejected Resource distance varies by Salam from radial plot position. - L.M.G.

SUB. PT. MON. 8878, 1939 (Survey T-8767)
Radially plotted position is 1.2 mm northwest of geographic position. Questionable angle reading. Rejected. L.M.G.

SUB. PT. TAYLOR 2, 1911 (Survey T-8767)
Radially plotted position is 0.3 mm southeast of geographic position Rejected. L.M. G. Questionally angle reading.

SUB. PT. MON. 3/29-2, 1936 (Survey T-8768) Rejected L-M G.
Radially plotted position is 0.7 mm southeast of geographic position. (No reason, other than filt, could be found for this discrepancy)

Of the above control stations not held in the radial plot, the positions of three substitute points appear to be possibly in error. At Enterprise C.L. (USE), the error of 30 meters in the exact azimuth from the station indicates a possible error of one chain length being dropped when measuring the distance to substitute point. At MON. 8878, the discrepancy appears to be possibly an error in reading the azimuth angle, 3°49' instead 0°49'. At EAST, 1911, the error may possibly be due to sighting on a water tank which has no position instead of Bristol Municipal Water Tank.

The horizontal positions of all other stations identified as horizontal control were held in the radial plot.

14. The geographic positions of the following stations, identified in the field as landmarks and aid to navigation only, could not be held in the radial plot:

ROEBLING RANGE FRONT LT., 1935 (Survey T-8765) 8766

Radially plotted position is 2.4 mm northeast of geographic?

position.

(Light believed to have been moved. Should be checked by field edit party.)

Moved - according to field edit Storm 576 filed 4-78-50

Torm 567 filed 4-78-50

See 7-5766

TRENTON, PEOPLES BREWERY STACK, 1933 (Survey T-8765) Radially plotted position is 2.3 mm northwest of geographic position. (Geographic position believed to be in error. Should be) (checked by field edit party.) See Field Edit v Review Reports attached

BEVERLY, BEAUNIT MILLS TANK, 1935 (Survey T-8767)

Radially plotted position is 3.0 mm east of geographic position. Geographic position believed to be in error. Should be checked by field edit party.)

Misidentifical See photo 46-0->070 = Field Edit pricking card. - L.M.G.

RIVERSIDE METAL CO. STACK, 1933 (Survey T-8707)

Radially plotted position is 2.5 mm northeast of geographic

Another larger stack nearby falls on the geographic position. (Misidentified by field party.)

All other landmarks and aids to navigation were held to the plotted geographic positions in the radial plot.

15. REMARKS_

With the large number of control stations available and identified along the Delaware River, there was no difficulty in laying an accurate plot in that area. However, along the Rancocas Creek area in Survey T-8768, considerable adjusting of templets was necessary before a satisfactory plot could be obtained which was believed to be within the limits of accuracy required. Identification of control and pass points was difficult on photographs which were not clear and taken with foliage on trees. These were also considerably enlarged to proper scale. After the plot was complete, an examination of photographs under projection sheets, with radially plotted positions added, disclosed that about half of the photographs on this survey, T-8768, were noticeably tilted. It was not possible to determine this before the radial plot was complete or to make tilt determinations on tilted photographs because of lack of sufficient control stations in this area of the radial plot.

> Respectfully submitted 28 April 1948

Approved and forwarded 14 May 1948

Thos. B. Reed

Officer in Charge Baltimore Photogrammetric Office Photogrammetric Engineer

Remarks	Also Light	Landmark	Landmark Landmark Now-Eddington Range	Front Lt. Now Edding Hange	kear Lt. Light Landmark Landmark		Replaced by USE	irom Mas.
	Als	Lan	Lan Lan Now ¥	Now	kear l Light Landm		Rep	r. T.
Recovered Control Pricking	None None Sut.Pt. None None	Sub.Pt. Direct None None	None Direct	Direct	Direct None	Direct Direct None None Direct	None	None Sub.Pt. None
Recovere	Yes Yes Yes Yes	Kes Kes Kes Kes	Yes Yes Yes Yes	₹ es	Yes Yes Yes	Kes Kes Kes Kes	Yes	Yes Yes Yes
Name of Station	EDDINGTON ST. FRANCIS INDUSTRIAL SCHOOL BELFRY, 1933 NESH, 1911 ENTERPRISE CL (USE), 1935 GUN, 1911 GUN ECCENTRIC, 1933	EDGEWATER, CL LOWER (USE) 1935 BEVERLY ST. STEPHENS CH.SP. 1933 BEVERLY, ST. JOSEPHS CATHOLIC CH. SP., 1935 DRENNAN, 1911 BEVERLY, ROET F. HOBBS CO. LETTERED WATER TANK, 1933	BEVERLY, BEAUNIT MILLS TANK, 1935 BEVERLY, WALL ROPE WORKS SMAIL TANK, 1935 BEVERLY, WALL ROPE WORKS TANK, 1933 BEVERLY RANGE FRONT LIGHT, 1935	BEVERLY RANCE REAR LIGHT, 1935	ANDALUSIA, ENTERPRISE MANUFACTURING CO. TANK FINIAL, 1935 MUD ISLAND RANGE FRONT LIGHT, 1935 CORNWALL HEIGHTS, SCHUTTE & KOERTING CO. WATER TANK, 1933 CORNWALL HEIGHTS, SCHUTTE AND KOERING CO. STACK, 1933 DREXEL, 1911	ANDALUSIA 2, 1935 FINE, 1911 DIEHL, 1911 MUD, 1911 TORRESDALE EDEN HALL CLOCK TOWER, 1911	· FISHER 2, 1911	HAWK 2, 1911 TAYLOR 2, 1911 DELANCO, DOBBINS MEMORIAL METHODIST CH.SP. 1935
Index No.	45000	ደግオግኅ	17 18 19 20	な	24444	% ፈ % ጽ ፠	%	£84

Renarks	king Landmark Landmark Landmark	Landmark ct ct	one irect Landmark one irect (Doubtful)	Landmark Beacon ct Light	Light Pt. ct	Landmark Landmark Pt.
r •	Fricking None Direct	Direct Direct Direct None	None Direct None Direct (Doubl	None Direct	Sub.Pt. None Direct None	None None Sub.Pt.
Recovered	Yes Yes Yes Yes	Yes Yes Yes Yes	Yes Yes Yes	Yes Yes Yes Yes	Yes Yes Yes Yes	Yes Yes Yes Yes
K Name of Station	RIVERSIDE METAL CO. STACK, 1933 RIVERSIDE, RIVERSIDE METAL CO. TANK, 1935 RIVERSIDE, KEYSTONE WATCH CASE CO. TANK, 1935 RIVERSIDE, ST. PETER'S CH. SP., 1933 RIVERSIDE MUNICIPAL STANDPIPE, 1933	RIVERSIDE, FLORENCE THREAD CO., TANK, 1935 TORRESDALE, SUPT. OF HATCHERIES HOUSE CUPOLA, 1911 FILTER PLANT 2, 1935 TORRESDALE ROUND HOUSE CUPOLA, 1911 PLUM (USE) 1935	WRIGHT 2, 1911 WELLS 2, 1911 BEVERLY, PRESEYTERIAN CH. SP., 1933 BAID 2, 1935 BRIDGEBORO N.E. TRANSMISSION TOWER, 1933	BRIDGEBORO SW TRANSMISSION TOWER, 1933 AIRWAY BEACON NO. 70, 1933 BRISTOL GRUNDY FARM WATER TANK, 1933 MCKEE 2, 1935 COLLEGE POINT RANGE FRONT LIGHT, 1935	COLLEGE POINT RANGE REAR LIGHT, 1935 FERGUSON 2, 1935 MAPLE, 1912 BRISTOL, ROHM & HAAS COUNTRY CLUB TANK, 1935 BEACH, 1912	BURLINGTON-BRISTOL BRIDGE, TOWER NORTH LIGHT, 1935 BURLINGTON-BRISTOL BRIDGE, SOUTH PIER RED LIGHT, 1933 KERR ECCENTRIC, 1933 MONUMENT No. 2846 (N.J. G.C.S.) 1935 MONUMENT No. 2845 (N.J. G.S.) 1935
Index	165 144 146 146 147	85.75.55 25.	58 59 578 579 580	580 584 585 587 587	587 588 590 591 592	593 593 595 598

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Remarks	Landmark	Landmark Light Landmark	Landmark	Light	Partially destroyed,	7,440
Control Pricking	None Direct None None	None None	None Direct Sub.Pt. None	Direct None None	None None None None Direct	None None Nirect Direct Sub. Pt.
Recovered	Yes Yes Yes Yes	K Kes Kes Kes Kes	Yes Yes Yes Yes	K K G G S K K K G G S K K K K G G S K K K K	Kes Yes Yes Yes	Yes Yes Yes
Index Name of Station	640 BROWN 2, 1935 641 FIORENCE STANDPIPE, 1933 642 FIORENCE ST. CLARE'S CATHOLIC CH. SP., 1935 646 TULL ECCENTRIC, 1933 646 TULL, 1912	646 ROEBLING ASSUMPTION CH. SP., 1933 647 ROEBLING CL (USE) 1935 647 ROEBLING RANGE FRONT LIGHT, 1935 648 ROEBLING, J.A. ROEBLING CO. LETTERED WATER TANK, 1933 648 ROEBLING, RED BROWN WATER TANK, 1935	648 ROEBLING RED STANDPIPE, 1933 649 ROEBLING, J. A. ROEBLING CO. UNLETTERED WATER TANK, 1933 649 ROEBLING, J. A. ROEBLING CO. TALLEST STACK, 1933 650 STATION 45 (USE) 1935 651 MANOR, 1912	652 ABANDONED PLANT STACK, 1933 653 TURKEY, 1933 655 BIRCH, 1935 655 WARNER CL. (USE) 1935 656 WHITEHILL RANGE FRONT LIGHT, 1935	657 SHREVE, 1935 658 CINDER, 1935 658 BALLAST, 1935 658 BANK, 1912 658 FIELDSBORO, CHURCH BRICK CO. STACK, 1933	659 STARKEY, 1935 659 CEDAR 2, 1935 660 BORDENTOWN MANUAL TRAINING HIGH SCHOOL SILVER MATER TANK, 1933 662 BORDENTOWN MUNICIPAL WATER TANK, 1933 663 FARM ECCENTRIC, 1933

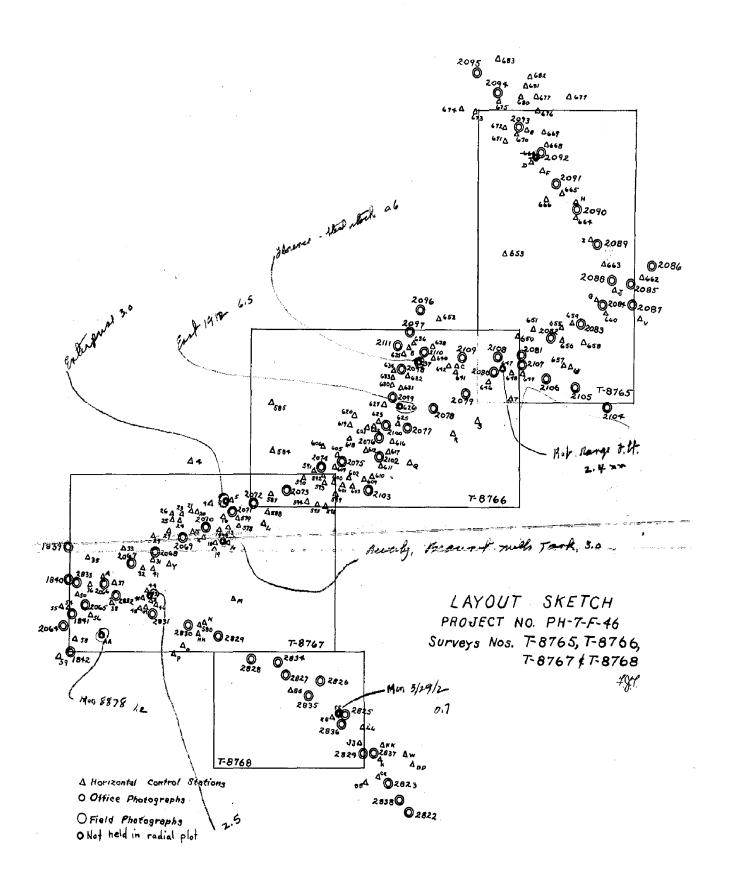
			rk as Morris	heights			
Remarks	Destroyed. Landmark		Landma: Listed		Landmark		
Control Pricking	None None Direct Direct	Direct None None None	Direct data available Direct	None Direct Direct None	None None None	None None None Sub.Pt.	None
Recovered	Yes No Yes Yes Yes	Yes Yes Yes Yes	Yes Yes No field d	Yes Yes Yes Yes	Yes Yes Yes	Yes Yes Yes Yes	Yes
x Name of Station	FARM (USE), 1912 -LONG-BAR-FRONT-RANGE, 1933 DELAWARE RIVER EAST TWIN TRANSMISSION TOWER, 1933 DELAWARE RIVER WEST TWIN TRANSMISSION TOWER, 1933 TRENTON PROPILES BREWENT STACK, 1933 TRENTON ROEBLING BUCKTHORN PLANT STACK, 1933	TRENTON, J.L.MOTT POTTERY CO. WATER TANK, 1933 TRENTON, J.L. MOTT POTTERY CO. STACK, 1933 TRENTON, N.J. STATE PRISON STACK, 1933 WESTBRIDGE ECCENTRIC, 1933 WESTBRIDGE (USE) 1912	MORRISVILLE, ROBERTSON ART TILE CO. WATER TANK, 1933 MORRISVILLE, ROBERTSON ART TILE CO. STACK, 1933 MORRISVILLE, AJAX COMB CO. STACK, 1933 MORRISVILLE HEIGHTS SILVER STANDPIPE, 1933	CARLSSON, 1933 MORRISVILLE MUNICIPAL STANDPIPE, TALL BLACK, 1933 TRENTON, AMERICAN STEEL AND WIRE CO. CONCRETE STACK, 1933 TRENTON, AMERICAN STEEL AND WIRE CO. WATER TANK, 1933 TRENTON, ST. JOHN'S CHURCH, NORTHERLY OF TWIN SPIRES, 1933	TRENTON, BROAD ST. BANK HEATING PLANT STACK, 1933 TRENTON SENIOR HICH SCHOOL SPIRE, 1933 TRENTON, STATE CAPITOL DOME, 1933 TRENTON TRUST CO. FLAGPOLE, 1933 TRENTON ST. MARY'S CH. SP., 1933	TRENTON, WASHINGTON MONUMENT, 1933 TRENTON, HILL'S REFRIGERATION CO. WATER TANK, 1933 TRENTON, HILL'S REFRIGERATION CO. STACK, 1933 TORRESDALE (39) (USE) 1939 STATION 57 (USE) 1935	BLUFF, 1935
Index No.	663 665 665 665 665 668 668	868 668 670 670	671 671 672 673	674 675 676 676 676	677 679 680 6880 6880	682 683 683 B A	ပ

ř	•	1	•	
No.	Name of Station	Recovered	Con tro l Pricking	Remarks
Q	MORRIS 2 (USE) 1928	K G	None	
闰	FERRY (USE) 1928	Yes	None	
<u>.</u>	TERHACE (USE) 1939	Yes	None	
უ :	N.	Yes	Direct	
I	PERKINIG (USE) 1930	Yes	None	
-	CLOT (RSII) GGUART	()	N.	
H ►7	28 R (FRE) 1912	מ ט ט א	None	
> >	NO D (USD) 1712 NOW NO 0002 1020	res	None	
4 r	(700)	res	Direct	
l ≽	MON. NO. 2892 1937	Ies	Sub.rt.	
l	6 =/∞	ก	• a regno	
Z	MON. NO. 2894, 1937	Yes	Sub. Pt.	
0	2897	Yes	None	
Д	2898,	Yes	Sub, Pt.	
G,	. NO. 8810,	Yes	Direct	
괊		Yes	Direct	
۳	SECT TIES ON MON	,		
3 E −	NO PREST	res <	None	
+ =	2 2	Sa t	Digital	
9 5	MO 0633	ກ ປ	Direct.	
> \$2	100 ON .	Tes	Trect for the	
R -	· INC. CO40,	Ies	Sub.rt.	
×	MON. NO. 8870, 1939	Yes	Sub Pt.	
₩	MON. NO. 8874, 1939	Yes	Sub. Pt.	
2	MON. NO. 8876, 1939	Yes	Sub. Pt.	
AA	MON. NO. 8878, 1939	Yes	Sub Pt.	
BB	MON. NO. 14863, 1940	Yes	Sub. Pt.	
į	•			
5 f	<u>۱</u>	Yes	None	
<u> </u>	ġ;	Yes	Sub.Pt.	٠.
म् ज्या (ह	2 2	Yes	None	
<u>)</u> ह		res < res	Sub.rt.	
5		Ies	Sub. Ft.	
H		Yes	Sub.Pt.	
5	MON. NO. 3/109,1936	Yes	Sub.Pt.	

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Remarks Control Pricking None None Recovered MON. NO. 3/115, 1936 MON. NO. 104/3, 1936 Name of Station Index No. X I

Yes Yes



STATION	SOURCE OF	DATUM N.A.	LATITUDE OR y-COORDINATE LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET. OR PROJECTION LINE IN METERS	DATUM	N.A. 1927 DISTA FROM GRID OR P	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS
	Acc. NDEXPE	1927		FORWARD (BACK)		FORWARD	(BACK)	FORWARD (BACK)
MANOR , 1912	1-1.664	,	40 08 08.935			275.6	1595.0	
	<i>L</i> 9		74 45 28.534			675.5	9.141	
TURKEY, 1933		> '	40 09 46.379			1430.5	1,20,1	
^	ò		74 46 28,451			673.3	746.6	
BIRCH, 1935	-3340°	•	40 08 10,116			312.0	1538.6	
	300		74 44 48.431			1146.6	273.9	
MARNER C.L. (USE)	-3340	7	40 08 10.784			332.6	1518.0	
1935	2/p		74 14 52.397			1240.5	180.0	
WHITEHILL RANGE	-3340 276	1	1,0 0,7 55:08			1698.8	151.7	
FRONT LIGHT, 1935			74 14 146.54			1101,8	318,7	
/safe eve, 1935	-3340	>	40 07 20.345	-		627.5	1223.1	
	360		745 44 45.720			1082.6	338.1	
CINDER, 1935	-3340 276	>	40 07 52.95		-	1633.1	27.4	-
	2/4		74 44 16.30			383.6	1037.0	- 1
/BALLAST, 1935	PHILA		40 08 12,656			390.3	1460.2	
	DIST.		71, 1,1, 06.26.5			148.3	1272.1	
BANK, 1912	USED	•	: නු			458.5	1392.0	
	DIST.		74 44 04.512			106.8	1313.6	
FEEDSBORO, CHURCH AGO.	AGG. No.75	`2	-40 07 48.660-	Beahoyed 1946		1500.8	34 9.8	
(Destroyed in 1946	7 Pg - 87		74 44 16.107	P		381.3	1039.2	
FLARKEY, 1935	1000 1000 1000 1000 1000 1000 1000 100	*	40 08 16.22			500-3	1350.3	
	376		74 44 28.64			678.0	742.4	
N CEDAR 2, 1935	USED PHILA	-	40 08 22,506		•	694.2	1156.4	
	DIST.		74 44 16.349			387.0	1022°7	
1 FT.=.3046006 METER COMPUTED BYHBFT	Harry R.Rudolph		рате 19 Рев. 1948	СНЕСКЕВ ВУ. ТӨТОУ	Leroy A.Senasack		DATE 17 Ma	17 March 1948
		-						

MAP T. 8765. SCALE OF MAP 1:10,000 SCALE FACTOR 1.000

			LATITUDE OR ". COORDINATE		DISTANCE FROM GRID IN FEET.	7	N.A. 1927 - DATUM DISTANCE	1 - DATOM	FACTOR DISTANCE
2014	AGC PE	1927 .	LONGITUDE OR x COORDINATE		OR PROJECTION LINE IN METERS FORWARD (BACK)	CORRECTION	FROM GRID OR P IN ME FORWARD	FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)	FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)
ECCEN-	9-1664	,	40 12 23.	793			733.8	1116.7	And the state of t
	29		11. 97 7/2	785			274.0	1145.0	-
AVESTBRIDGE (USE),	G-1 664	\	40 12 23.291	291			718.h	1132.2	
	80		74 46 11.348	54,8			268.1	1150.6	
MORRISVILLE, ROBERT SON ART TILE CO.	6-1751	2	40 12 12,530	530 ~7	1		386.5	1464.1	
	84		74 46 36,282				858	561.0	
MORRISVILLE, ROBERT SOM ART TILE CO.		>	40 12 11.66				359.6	1491.0	
3	, 1		74 46 34.60	S,			818.3	600.7	
MORRISVILLE, AJAX			40 12 24,456	951			754.3	1096.3	
			74 46 55.8	55.8 18			8*661	619.2	
MORRISVILIZ HEIGHT	r/s	>		787	A 6		1597.3	253.3	
	85		74 47 32.13	13	J.		759.4	659-4	
CARLSON, 1933	G-1664	<u> </u>	40 12 52.838	38			1629.7	220.9	
64 5Cust			74 47 50.961	77,			1205.1	213.7	
MOKKISVILLE MUNICI- PAL STANDPIPE,TALL	-1751	7	40 13 03.874	14			119.5	1735.1	
BLACK, 1933 .// 7	-		74 46 47.610	0,		· • • • • • • • • • • • • • • • • • • •	1125,8	293.0	
TRENTON, AMERICAN STREET, & WIRE CO.	ž.	<u> </u>	191-91 टा की	;;			1433.0	3°21'	
CONCRETE STACK, 1938	ري ح		74 45 26.878	8	,	,	635.6	783.8	
WARENTON AMERICAN STEEL & WIRE CO.	2		40 12 49,633	53	-		1530.9	519.7	
WATER TANK, 1933	85		74 45 32.239	6			762,4	656.5	
FHURTH NORTHERLY OF 1751	-1751	•	40 12 51.576	9			1590,8	259.8	
TWIN SPIRES, 1933	85		74 45 41.256	9			975.6	14.3.2	
TRENTON, BROAD ST. BANK HEATING PLANT	\$		40 13 10.851	ᇆ			534.7	1515.9	
STACK , 1933 , ,	ည ဆ	-	74 45 44.835	35			1060	358.6	

STATION	SOURCE OF	DATUM N.A.	LATITUDE	LATITUDE OR y-COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS	DATUM	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS	M FACTOR DISTANCE ILINE FROM GRID ON PROJECTION LINE IN MEYERS
0	Acc. Pg.	1927			FORWARD (BACK)		FORWARD (BA	
BORDENTOWN, MANUAL CONTROL TEST	1 2 2 1 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1	<u> </u>	80 o 1 7	30.612			\$1.506 S.J.L.P.	
LYER WATER TANK,	86		74 43	28.232			668.3 752.0	
	#	-2	60 047	18.033	East of limits of		556.2 1294.4	
1933	A 8 8 9 9	,	74 12	17.146	this survey.		1.7001 9.511	
EARM ECCENTRIC,	G- 1664	7	60 OT	34.991				
1935	Fg.67	,	74 43	30.853			730.2 689.8	
FARM (USE), 1912	G-1664	7	60 047	54.757				
	Pg. 79		74 43	30.913.				
GONG BAR, FROME	G-1751 Pa 89		10 10	26.07	Destroyed.		1112.5 738.1	
	9		北井	17.04		•	407-2-1016-4	41
DELAWARE RIVER BAST	£	7	40 11	03.914			120.7 1729.9	6
TOWER, 1933		- , - , -	74 44	58.734				
DELAWARE RIVER WES	5 5	2	10	58.841	•			1
TOWER, 1933		,	1	14.839	-		7	6
TRENTON PEOPLES	£		40-11	52.10 No.	Non-check trianquiation	assition	1 1	
CCC TENOUTO INDUSTRA	2. 20		74 45	-29.40 /a/e	ted - radial plot pos	ossition gir		60
TEENTON, ROEBLING	2	} '	40 12	10.250 ~2 6	in sty dated going	' '.	216.1 1534.4	1
STACK, 1933	3		74 45	13.639			322.6 1096.5	2
ZENTON, J.L.MOTT	2 2 2 3 3	` '	12 01	05.054			155.9 1694.7	
FRAK 1955 WAT ER	,		74 45	ļ				
TRENTON, J.L.MOTT	2		70 75	İ			_	
1935	99		74 45	67 _t / _• 80				2
TRENTON, N. J. STATE	, , , , , , , , , , , , , , , , , , ,	<u></u>	70 15	22 - 320	,			2
CCL 16 WARRY WOLLING			74.45	20.140			1,83.4 935.6	
1 FT = 3048006 METED							11	

MAP T. =8765		PROJE	PROJECT NO. PH-7(46)F	SCALE OF MAP 1	1:10,000	SCAL FACTOR	1.000
STATION	SOURCE OF INFORMATION	PATU™ 1927	LATITUDE OR y.COORDINATE LONGITUDE OR x.COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD (BACK)	DATUM	. N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN WETERS FORWARD (BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)
TRENTON, SENIOR HIGH G-1751 SCHOOL SPIRE, 1933	1521-9 _H	7		Not within fine	43		
TRENTON, STATE CAP-	188 et	1	172	Nostwistin fin	J. J.		4. 3
TRENTON-TRUST-CO	±	7	40 13 13-451 74-46 02-791	Nost within fin	13	44.9 1435.8 -64.3 1354.4	
TRENTON, ST. MARYS- CH. SP., 1933-	8 83	1		Not within tenich		-666.0 1184.6 1764.5 54.2	
Trenton, washington Montment, 1933-	83	7	40 13 32.518 74 45 54.611	Not within finish			
TRENTON, HILL 'S. RE. FRIGERATION OO.	n 83	`	71. 1.6. 01. 281	Not when finish		101.9 1219.9	
TERNION HILL'S BE- REFERENCE OF 60.	# 83			Not within finit			
STACK, 1935	Ü.S.E.D		74 46 07.393	g mo.		174.8 1215.6	
/ MORRIS 2(USE)	Fnila. Dist.	•				1065.6 353.6	
FERRY (USE) 1928	#	````				-	
TERRACE (USE) 1939	*		11 45			1227.0 623.6	
/Brm (USE) 1912	=		80				
//евепита (use) 1930	£		10 10 47.012 74 44 11.962				
1 FT.= 3048006 METER GOMPUTED BY:	H.R.Rudolph		DATE 1 March 1948	L.Senasack CHECKED BY. R. Glaser	Glaser	17 Mai	March 1948 m.2388-12 March 1948 🔾

The second secon						MILLAN TOOL A M	
STATION	SOURCE OF INFORMATION	DATUM N.A.	LATITUDE OR y-COORDINATE LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET. OR PROJECTION LINE IN METERS	DATUM	FROM GRID OR PROJECTION LINE IN METERS	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS .
	(INDEX)	1927		FORWARD (BACK)			
THROPP (USE)	U.S.E.D.	7	ी० 10 06.344			195.7 1654.9	
1912	Phila. Dist.		74 43 52.849				
,28 g use, 1911	£	`	40 09 04.453			Г	
· i		;	74 94,317				
MON 8828, 1938	N.J.GCS	`^	6,909,694	4,606.9 393.1		1404.2 119.8	
	ton Co.		1.978.2/11.5	3,241.5 1,758.5		0*925 0*886	
8833	N.J.GCS Burling	ح	475,763.4	763.4 4.236.6		232.7 1291.3	Not within limits
MON. 4456, 1938	ton Co.		1,988,653 .3	3,653.3 1,346.7		1113.5 410.5	of this survey,
SUB STATION							
FARM ECC. 1933			PLOT				
			GRAPHICALLY	XΠ			
		-		•			
		:					
		-					
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		,					
į							
			,				
			A A A A A				
I FT. = .3048006 METER COMPUTED BY: H.R. Rudolph	dolph	7g	_{рате} 1 Ма гоћ 1948	CHECKED BY. R.G.	R.Glaser	DATE 3 March 1948	тер 1948 ж. 2388-12

MAP T. 8765 SCÁLE FACTOR 1.10,000 SCÁLE FACTOR 1.000

COMPILATION REPORT

SHORELINE MANUSCRIPT, SURVEY No. T-8765

Manuscript T-8765 is one of four shoreline surveys in Project No. PH-7(46)-F along the Delaware River. This manuscript covers the territory along the shoreline from Roebling to Trenton, N. J. Compilation Instructions No. 1 dated 14 June 1946, and Supp. Instructions No. 2, dated 11 October 1946, have been complied with except for deviations herein noted.

All instructions on file in effice files of Div. Photogr. units a otherwise noted.

26. CONTROL

For the layout of control on this manuscript refer to the radial plot report. A list of control stations is included in this report on Form M-2388-12. The geographic position of the following station, identified in the field as a landmark and aid to navigation only could not be held in the radial plot:

TRENTON, PEOPLES BREWERY STACK, 1933. Radially plotted position is 2.3 mm northwest of geographic position. See Form 567

Station MORRISVILLE HEIGHTS SILVER STANDPIPE, 1933 was recovered as MORRIS HEIGHTS STANDPIPE 2, 1933. No position is available for the latter name and it was assumed that both names apply to the same station. Same station - 6.M.G.

27. RADIAL PLOT

Refer to the combined Radial Plot report for Surveys T-8765 to T-8768, incl., submitted to the Washington Office 14 May 1948, and included human.

28. DELINEATION

Compilation is in accordance with Photogrammetry Instructions No. 17 dated 15 September 1947.

Limits of areas of marsh, high ground and interpretation of other inland features were determined after careful stereoscopic examination of the photographs.

Section of shoreline N. from Duck Island Front Light to Trenton Peoples Brewery Stack transferred to manuscript by use of the vertical projector as it was not possible to cut in detail points.

Field inspection was adequate for the area covered by this survey.

29. SUPPLEMENTARY DATA

- U. S. Engineers Survey of the Delaware River, Philadelphia to Trenton, dated 1932 revised to 1941.
- U. S. Engineers Disposal Area Maps, Delaware River, scale 1":200', various dates 1935 to 1945.

30. MEAN HIGH WATER LINE

Delineation of the mean high water line is in accordance with field identification.

31. MEAN LOW WATER LINE

None about haccordance with field identification and
office interpretation.

32. DETAILS OFFSHORE FROM THE MHYL

Delineated in accordance with field identification.

33. WHARVES AND SHORELINE STRUCTURES

No comment.

34. LANDMARKS AND AIDS TO NAVIGATION

Delineated in accordance with field identification. Forms No. 567 for the landmarks and aids to navigation within the limits of this survey and all other surveys in Project No. PH-7(46)F are submitted with this report. Classes Quant Like >44(49).

See section of chart No. 296 attached to this report for landmarks to be deleted and names of landmarks to be changed as recommended by the field inspection party.

35. HYDROGRAPHIC CONTROL

Thirty photo hydro stations were located and delineated in accordance with field identification. A list of their descriptions is attached to this report.

36. LANDING FIELDS AND AERONAUTICAL AIDS

See field report.

37. GEOGRAPHIC NAMES

Geographic names were taken from the final name standards furmished this office. A list of geographic names is attached to this report.

39. JUNCTIONS

Junction was made with Survey T-8766 to the west and found to be in good agreement. The other boundaries are the project limits.

Д. BRIDGES

See paragraph 15 in the field report.

44. COMPARISON WITH EXISTING TOPOGRAPHIC QUADRANGLES

This manuscript was compared with United States Corps of Engineers quadrangles Trenton West, Trenton East, Columbus and Bristol (scale 1:25,000) and found to be in good agreement with the exception of Carlyle Creek which is not shown on the manuscript as it has been filled in.

Previous survey No. T-3378 of the U.S. Coast and Geodetic Survey is in the area of this manuscript but was not available for comparison. See Review Report.

45. COMPARISON WITH EXISTING NAUTICAL CHARTS

This manuscript was compared with the U. S. Coast and Geodetic Survey Chart No. 296, scale 1:40,000, and found to be in good agreement except for Carlyle Creek, which is not shown on the manuscript as it has been filled in.

The following topographic information shown on Survey
T-8765 is of sufficient importance to warrant immediate application to
the charts

None .

The following topographic details above the plane of MHW 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 to be completed by the Hydrographic Party.

Minor changes in cultural and shoreline details require no special discussion.

Respectfully submitted:

Engineering Draftsman

Photogrammetric Engineer

Photogrammetric Office Reviewer

Approved and forwarded

March 1949

Officer in Charge

Baltimore Photogrammetric Office

Harry R. Rudolph Supervisor

PHOTO-HYDRO STATIONS

	Signal No.	Description	Photo . No .
	6501	Light pole at rear center of small wood bldg. next to river. Building located at end of track at gravel loading site approximately 60 ft. above MHW.	2082
)	6502	Downstream corner next to river of old brick house incruins. Approx. 30 ft. above MHW.	2082
	650 3	Upstream gable of abandoned brick and wood house. Approx. 35 ft. above MHW.	2082
	6504	Brick chimney at downstream gable of three story white frame house. Approx. 50 ft. above MHW.	2083
	6505	Downstream gable of old two story brick house. Approx. 50 ft. above MHW.	2085
	6906	White chimney in center of roof. Approx. 35 ft. above MHW	2089
	650 7	Gable next to Biles Creek of unpainted dwelling. Approx. 30 ft. above MHW.	2090
	650 9	Chimney at downstream gable of two story un- painted house. Approx. 40 ft. above MHW.	2090
	6509	Upstream gable of tiny white dwelling. Approx. 30 ft. above MHW.	2090
	6510	Intersection of road centerline. Approx. 15 ft. above MHW.	2090
	6511	Upstream gable of two story white frame house. Approx. 50 ft. above MHW.	2090
	6512	Downstream corner of stone pier next to creek. Approx. 2 ft. above MHW.	20 90
•	6513	Chimney at gable next to creek of two story concrete house. Approx. 50 ft. above MHW.	2091
)	6514	Roof peak in center of two story light brick house. Approx. 50 ft. above MHW.	2 991
	6515	Chimney at riverward gable of two story gray frame building. Approx. 50 ft. above MHW.	2092

Signal No	Descriptions	Photo. No.
6516	Downstream corner of large metal building. Approximately 45 ft. above MHW.	2092
6517	Downstream tower of six skeleton steel towers upstream of large Trenton Marine Terminal bldg. Approx. 75 ft. above MHW.	2091
6518	Downstream corner next to river of flat top green metal bldg. Approx. 30 ft. above MHW.	2091
6519	Square, dirty brick chimney at upstream end of large building that is downstream of Oil Co. Approx. 75 ft. above MHW.	2093
6520	SW corner of sheet piling oil wharf. Approx. 5 ft. above MHW.	2089
6521.	West gable of Bordentown Yacht Club cinder block bldg. Approx. 20 ft. above MHW.	2088
6522	Upstream corner of concrete whart of Yapewi Aquatic Club. Approx. 2 ft. above MHW.	2088
6523	North gable of tin covered bldg. of Continental Chain Corp. Approx. 40 ft. above MHW.	2084
6524	Concrete RR telephone booth. Approx. 15 ft. above MHW.	2081
6525	Downstream gable of cinder block bldg. with red roof of Bordentown Yacht Service. Approx. 35 ft. above MHW.	2082
6526	Chimney in center of roof of 2 story brick house with green roof. Approx. 80 ft. above MHW.	2082
6527	Riverward iron RR signal post, set in concrete of two identical posts (on opposite sides of track.) Approx. 20 ft. above MHW.	2082
6528-	Chimney at downstream gable of 12 story house. Approx. 40 ft. above MHW.	- -2082 -
6529	Peak of roof of the front half of a small permanent gray metal bldg. Approx. 15 ft. above MHW.	21.06
6530	Concrete RR telephone booth. Approx. 15 ft. above MHW.	2106

FIELD EDIT REPORT SHORELINE SHEET T-8765 (74°42.5') (40°06.5') PROJECT. PH-7 (46)

E. R. McCarthy, Chief of Party

The field edit survey of this sheet was made by Mr. R. A. Horn, Photogrammetrist, from 11 April 1949 to 14 April 1949, in accordance with The Director's Field Edit Instructions dated 24 August 1945 and supplementary instructions.

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46. METHODS

See report on T-8767

4. HORIZONTAL CONTROL

Triangulation station "TRENTON? PEOPLES BREWERY STACK.
1935". mentioned under paragraph 26 of the compilation report,
was investigated in the field. General appearance and local
information verify that this station has not been disturbed.

7. MEAN HIGH WATER LINE

See report on T-8767

11. LANDMARKS AND AIDS TO NAVIGATION

Footings are all that remain of both the front and rear lights of the NEWBOLD RANGE. The KINKORA RANGE, similarly, is no longer in existence. All that remains of the front light is the footing; the rear light structure is upright but the light has been removed. Form 567 is submitted on the status of afforementioned aids. The Commandant of the U. S. Coast Guard has been notified of the necessity of a change in the Light List.

47. ADEQUACY OF COMPILATION

The compilation appears very good. Minor details which were generally obscure on the photographs and changes that have transpired since photography are noted on the field edit sheet and the photographs.

49. REVIEWS

See report on T-8767

Submitted: 15 April 1949

Robert A. Horn Photogrammetrist

567	1945
Form	April

DEPARTMENT OF COMMERCE U. S. COAST AND GEODETIC SURVEY

NONTENDATING SANDSCOR LANDMARKS FOR CHARTS

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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.

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NONFLOATING AIDS OR PARTHERS FOR CHARTE

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April 1945

Form 367 April 1945

DEPARTMENT OF COMMERCE

DETIC SURVEY U. S. COAST AND

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

STRIKE OUT ONE TO BE CHARTED

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Trenton, Her Jersey Gold 19 50

S. V. Griffith

I recommend that the following objects which have (harksards) been inspected from seaward to determine their value as landmarks be L. Nartin Gazik The positions given have been checked after listing by charted on (debred from) the charts indicated.

CHARTS AFFECTED Chief of Party. 8 OFFSHORE CHART アメタイプ・コージャスメ INSHORE CHART HYEBOR CHART In the shove radial plot position, determined with more than adequate control in the immediate vicinity of this previously recommended Emdmark, supersedes the non-check triangulation position given for TREFFOR, PROPIES BREWSHY, STACK, 1933 (See Descriptive Report T-8765) LOCATION Fed. Plot OF LOCATION AND SURVEY No. METHOD 1927 DATUM D. P. METERS 974 LONGITUDE <u>...</u> POSITION Z 0 D. M. METERS 1618 LATITUDE H 9 SIGNAL Hentical Chart Branch (2) Distance Sectors STACK (shout 100' high) DESCRIPTION Copy to: (1) CHARTING NAME STATE

shall be reported on this form. The data should be considered for the charts of the area and not by Positions of charted landmarks and nonfloating This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. المراولة البات الماعظة والمعارية والمرادية المعالم المناهات والماطا

FIELD INSPECTION OF CHARTED LANDWARKS AND AIDS TO NAVIGATION

Chart No. 296 --- Philadelphia, Pa. to Trenton, N.J.

Ship CILBRET, October 1948

Reference:- INSTRUCTIONS - DELAWARE RIVER, Director's letter 22/NEK, S-2-GI, 12 October 1948 - Paragraph 2.

In accordance with Instructions contained in reference, a field inspection of charted Landmarks and Aids to Navigation on Chart No. 296 was accomplished, underway, by the Ship GIIBERT.

All Landmarks and Aids were checked on northbound and southbound trips run on 23 and 27 October 1948, respectively. During the intervening period, the Ship GILBERT remained at Trenten, N. Y. and an inspection was made of the immediate locality of Trenton from the bridge to the Trenton Marine Terminal.

Inspection of Landmarks was accomplished by Lieutenant Commander John Laskewski, and of Aids to Navigation by Lieutenant Commander R. B. Quinn.

RECOMMENDATIONS:-

- (1) All Landmarks and Aids to Navigation noted with a check mark in red ink on the enclosed copy of Chart No. 296 were identified and are recommended for retention.
- (2) All Landmarks and Aids marked for deletion or labeled "N.E." (Non-Existent) are recommended for removal from the chart.
- (3) Where noted at certain tanks, it is recommended that the wording "(Elev)" be added to the charted descriptions.
- (4) It is recommended that the name "Trenton Marine Terminal" be added to the chart as indicated on the insert plan.

GENERAL COLLIENT:-

- (1) The Trenton Marine Terminal is practically the head of navigation on the river. Only pleasure craft and small oil barges of 8-foot draft go beyond the terminal wharf. The latter are brought alongside the Delaware Petroleum Company wharf, 200 yards southeast of the bridge, only at high tide when there is 9 feet of water at the wharf face.
- (2) The turning basin adjacent to the Delaware Petroleum Company wharf is no longer used. The basin is gradually filling with silt and the bulkhead is not kept in repair.

- (3) The area between bueys "C=13" and "C=15" in Duck Island Range channel shows shouling that was also commented on by the managements of both the Trenton Marine Terminal and the Delaware Petroleum Company. Depths corrected to 9 feet at MLW were recorded by the Ship GILBERT's fathemeter on both northboand and southbound trips, with the ship approximately in the center of the channel.
- (4) The Kinkera Range and Newbold Range lights north of Newbold Island have been discontinued. Two of the beacons supporting these lights have been removed as indicated on the chart.
- (5) The Landreth Channel range lights on Burlington Island were not lighted on either day that the Ship GIIBERT passed them, but this may have been a temporary condition since the range beacon tewers were in good condition.
- (6) The buoys within the area of this chart appeared to be in position, well-tended, and adequate.
- (7) Local information at Trenton indicates that shipping in the area from Philadelphia to Trenton decreases annually.

John Laskowski, Lt. Comdr., C&GS.

16 November 1948.

F. B. Quinn, Lt. Comdr., C&GS.

GEOGRAPHIC NAMES Survey No. 1-8765	1		One of	diadia		· Hoc	5 / 38°	S. May	8
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Review Report T-8765 Shoreline Survey April 14, 1950

62. Comparison with Registered Topographic Surveys

T-171	1:10,000	1844
T-172 bis	1:10,000	1844
T-173	1:10,000	1844
T-3378	1:20,000	1911

Such areas of the above listed surveys as are common to this manuscript have been superseded by it for nautical charting purposes.

63. Comparison with Maps of Other Agencies

Trenton, N.JPa. Bordentown, N.JPa. Burlington, PaN.J.	1:62,000	U.S.G.S. U.S.G.S. U.S.G.S.	Reprint Reprint	1944
Trenton West, N.JPa. Br istol, PaN.J. Trenton East Columbus, N.J.	1:25,000 1:25,000 1:24,000 1:24,000	A • M • S • A • M • S • A • M • S • A • M • S •	1947 1947 1948 1948	

64. Comparison with Contemporary Hydrographic Surveys None

65. Comparison with Nautical Charts

Chart 296 1:40,000 Sept. 1948 (Revised)
No significant differences occur between the map and the chart.
66. Adequacy of Manuscript

This compilation complies with the National Standards of Map Accuracy.

67. Triangulation Stations

The discrepancy between the radially plotted and quegraphic positions for TRENTON, PEOPLES BREWERY, STACK, 1933 has been noted in the Radial Plot and Compilation Reports. In sighting on this object from TURKEY, 1933, it is quite possible that another stack may have been mistakenly focused upon, since there is an industrial area in the immediate vicinity with quite a number of stacks. See Form 567, dated April 14, 1950 included herein. Form 526 was forwarded to the Division of Geodesy indicating that the non-check position given for this station was in error.

68. Miscellaneous

The mean range of tide has been incorrectly reported on the reverse side of each of the field photographs for T-8765, T-8766, T-8767 and T-8768 and in their respective Descriptive Reports as varying between 7 and 8 feet.

The Tide Tables for the Atlantic Ocean of 1946 indicate the mean range as being 6.2 feet at Trenton, N.J. and 6.1 feet at Bordentown, N.J.

Reviewed by:

L. Martin Gazik

Approved by:

Chief, Review Section K

Division of Photogrammetry

Chief, Div. of Photogrammetry

Chief, Nautical Chart Branch

Division of Charts

Chief, Div. Coastal Surveys

NAUTICAL CHARTS BRANCH

SURVEY NO. <u>T876</u>5

Record of Application to Charts -

DATE CHART	CARTOGRAPHER	REMARKS
5 53 Recorst 296	J.W. et al	Before After Verification and Review Completely
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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.

M-2168-1