

8760

Diag'd. on diag. ch. No. 1218-2

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Photogrammetric Topographic

Project No. Ph-7(46)

Field No. Office No. T-8760

BEN DAVIS POINT

LOCALITY

State New Jersey

General locality Delaware River

Locality Cohansey River to Nantuxent Cove

1946

CHIEF OF PARTY

William F. Deane

LIBRARY & ARCHIVES

DATE April 16, 1948

B-1670-1 (1)

0928

DATA RECORD

T- 8760

Quadrangle (II):

Ben Davis Point

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

Field Office:

New Castle, Delaware

Chief of Party: E. L. Jones

Compilation Office:

Baltimore Photogrammetric
Office

Chief of Party: Wm. F. Deane

Instructions dated (II III):

25 March 1946, 19 July 1946

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

Completed survey received in office:

1-23-48

Reported to Nautical Chart Section:

Reviewed: 3-17-48

Applied to chart No.

Date:

Redrafting Completed:

Registered: 4-2-48

Published:

Compilation Scale: 1:20,000

Published Scale: 1:24,000

Scale Factor (III): 1.0000

Geographic Datum (III): N.A. 1927

Datum Plane (III): M S L

Reference Station (III): BEACH 1933

Lat.:

39° 19' 13.744" 423.9 mm

Long.:

75° 19' 14.218" 340.6m ~~Unadjusted~~

Adjusted

State Plane Coordinates (VI): Delaware

x = 527, 175.21 feet y = 480, 925.48 feet

x = 1, 814, 983.52 feet New Jersey
y = 178, 095.30 feet

Military Grid Zone (VI)

PHOTOGRAPHS (III)

<u>Number</u>	<u>Date</u>	<u>Time</u>	<u>Scale</u>	<u>Stage of Tide</u>
15602-03 incl.	3/21/46	1307	1:20,000	- 5.3' above M.L.W.
				* 5.7' above M.L.W.
15610-11 incl.	3/21/46	1322	1:20,000	- 5.1' above M.L.W.
				* 5.5' above M.L.W.
15613	3/21/46	1332	1:20,000	- 5.0' above M.L.W.
				* 5.5' above M.L.W.
46-D 1535-37 incl.	3/1/46	1350	1:10,000	- 0.4' above M.L.W.
				* 1.8' above M.L.W.
46-D 1583-89 incl.	3/1/46	1500	1:10,000	- 0.1' above M.L.W.
				* 1.4' above M.L.W.

*Actual tide observations at Atlantic City, N.J. with corrections to Bayside to Ben Davis Point.

Tide from (III): Predicted Tide Tables, Atlantic Ocean, 1946. Reference Station - Breakwater Harbor, Delaware, with corrections to Ben Davis Point.

Mean Range: 5.8'

Spring Range: 6.7'

Camera: (Kind or source) U. S. Coast and Geodetic Survey nine lens camera focal length 8 $\frac{1}{4}$ " and U.S.C.&G.S. wide angle single lens type "C" camera-focal length 6". All negatives are on file in the Washington Office.

Field Inspection by:

John D. Weiler

date:

May 1946

Field Edit by: Donald G. Flippo

R.J. Sipe, Chief of Party

date: 20 Oct. to 31 Oct. 1947

Date of Mean High-Water Line Location (III): Same as date of photographs supplemented by field data obtained during May 1946.

Projection and Grids ruled by (III) T.L.Janson

date: 8-16-46

" " " checked by: T.L.Janson

date: 8-16-46

Control plotted by: George O. Fellers

date: 9-2-46

Control checked by: Leroy A. Senasack

date: 9-2-46

Radial Plot by: Frank J. Tarcza

date: 10-4-46

Detailed by: Ruth E. Rudolph

date: 10-28-46 to 11-22-46

Reviewed in compilation office by: Raymond Glaser

date: 11-26-46 to 12-12-46

Map Manuscript
Elevations on ~~Field Edit Sheet~~
checked by: C. Theurer

date: 3-17-48

STATISTICS (III)

Land Area (Sq. Statute Miles): 25

Shoreline (More than 200 meters to opposite shore): 18.5 statute miles

Shoreline (Less than 200 meters to opposite shore): (approx.) 50 statute miles
measured along centerline of streams

Number of Recoverable Topographic Stations established: 7

Number of Temporary Hydrographic Stations located by radial
plot:

none

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 Edit Corrections by:
Gladys S. Nottenburg

Jan. 1948

MAP T-8760 PROJECT NO. PH-7-C(46) SCALE OF MAP 1:20,000 SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR μ -COORDINATE LONGITUDE OR x -COORDINATE	DISTANCE FROM GRID IN FEET. OR PROJECTION LINE IN METERS FORWARD (BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)
* COHANSEY RIVER REAR RANGE LT., 1933, r. 1946	G-1751 P. 130	N.A. 1927	39° 20' 47.476" 75° 21' 58.121"			1464.1(386.2) 1343.8(93.0)	
* COHANSEY RIVER FRONT RANGE LT., 1933, r. 1946	G-1751 P. 130	N.A. 1927	39° 20' 39.800" 75° 22' 03.340"			1227.4(622.9) 80.0(1356.8)	* see next page.
* NEW COHANSEY LIGHT, 1933; r. 1946	G-1751 P. 131	N.A. 1927	39° 20' 29.805" 75° 21' 41.878"			919.2(931.1) 1002.9(434.0)	
COHANSEY, 1933	G-1664 P. 67	N.A. 1927	39° 20' 22.380" 75° 21' 38.206"			690.2(1160.1) 915.0(521.9)	
BEACH, 1933; r. 1946	G-1664 P. 67	N.A. 1927	39° 19' 13.744" 75° 19' 14.218"			423.9(1426.4) 340.6(1096.7)	
* Sub.Sta. BEACH		N.A. 1927	39° 19' 75° 19'			443.6(1406.7) 339.7(1097.6)	
DAVIS, 1933	G-1664 P. 66	N.A. 1927	39° 17' 21.378" 75° 17' 23.724"			659.3(1191.0) 568.5(869.4)	
BEN DAVIS, 1839- 43	G-2105 P. 151	N.A. 1927	39° 17' 14.911" 75° 17' 29.289"			459.8(1390.5) 701.9(736.0)	
* BEN DAVIS (U.S.E.) r. 1946	U.S.E. Office Phila.Pa. Local Control Survey N.J.p.121	N.A. 1927	39° 17' 23.446" 75° 17' 21.040"			723.0(1127.3) 504.2(933.7)	
MON. NO. 6060, 1936, r. 1946	Local Control Survey N.J.p.121	N.A. 1927	196,333.5 1,833,877.9			1930.45(1117.55) 1181.99(1866.01)	Distances from here on are based on the state grid
* Sub. Sta. MON. NO. 6060		N.A. 1927				1950.59(1097.41) 1245.24(1802.76)	(10 over ft stations)
MON. NO. 6061, 1936; r. 1946	Local Control Survey, N.J.p.122	N.A. 1927	196,083.7 1,831,361.3			1854.31(1193.69) 414.92 (2633.08)	

1 FT. = 3048008 METER

COMPUTED BY: G.O. Fellers

DATE 8/14/46

CHECKED BY: J. Steinberg

DATE 8/20/46

M. 2388-12

SCALE FACTOR

[illegible]

DATE 8/20/46

M-238B-12

FIELD INSPECTION REPORT

T 8760, 39-22.5 / 75-15 / 7.5' Quadrangle

PROJECT PH-7(46)
Sub-project C

E. L. Jones, Chief of Party

1. Description of the Area:

The quadrangle is located on the eastern shore of Delaware Bay, in the townships of Greenwich, Fairfield, and Lawrence; Cumberland County, New Jersey.

Approximately one half of the quadrangle falls in Delaware Bay. Of the remaining area, half consists of typical high phase salt marsh, characterized by tidal drainage and scattered intermittent ponds. The vegetation in this area is mainly matted salt grasses, scattered small brush and rushes. Mosquito control ditches, distinguishable on the photographs in this area should be disregarded, since they are obsolete. The elevation of this area varies from three to five feet.

Above this elevation comes the remaining area of the quadrangle. The lower area of this section is mostly wooded, consisting of mixed hardwoods, white, pin and water oak. A small portion is in meadow. For the most part, the remaining land is under cultivation. The soil, sassafras loamy sand, is used almost exclusively for truck crops. The terrain is gently rolling and undulating with no discernable drainage pattern.

There is considerable shoreline erosion, and checks on this feature indicate an average loss of 40 feet in the last 10 years. The inshore limits of the marsh are characterized by scattered high sand dunes, with elevations in some instances over 20 feet. They are easily discernable on the photographs because they are too excessively well drained to support any trees other than white pine. The south bank of the Cohansey River also has a higher elevation than is consistent with the general terrain.

The one settlement of the area, Sea Breeze, consists of small fishing cottages mostly. There are no churches, cemeteries, schools, power lines or telephone lines in the entire quadrangle; and all township boundaries follow the centers of creeks.

2. Completeness of Field Inspection:

Field inspection was completed in conjunction with shoreline inspection and plane table contouring. Insofar as known, it is complete. Inadvertently, all houses in the area were inked with an open square around the outside border. Three or four houses, not discernable on the photographs because of woods, were cut in with a plane table.

Woods were classified in accordance with paragraph 54 of the instructions for this project, dated March 25, 1946.
Filed in the Division of Photogrammetry Office Files

Deletions have been shown on the photographs in green ink, township boundaries in purple ink.

3. Interpretation of the Photographs:

In general, the photographic features are pretty apparent. The salt marsh area is light gray, interspersed with darker areas indicating wet spots and ponds; the darkness of these wet areas are directly proportional to the depth of the water. Deep ponds appear almost black.

The hardwoods appear gray on the photographs, with marshy areas within their limits showing a shade darker. Softwood stands show up very dark and should not be confused with marshy deciduous areas. This can be avoided by remembering that the softwoods are confined to the higher elevations of the quadrangle.

Cultivated fields, as usual, are white with knolls appearing lighter than surrounding areas. The roads appear to be dual lane, an illusion caused by the black oiled center and white sand shoulders.

4. Horizontal Control:

Horizontal control was recovered and identified according to the Director's instructions, PH-7(46), Paragraphs 13-33 incl., dated 25 March, 1946. The number of stations identified meets the requirements of Paragraph 21 of the instructions.

The work consisted of recovery and identification of control on the photographs, and was completed in May, 1946 by John D. Weiler, Photogrammetrist.

Following is a list of horizontal control recovered for the quadrangle, giving pertinent data. The order of accuracy of New Jersey State Survey Traverse Monuments listed is not known in this office.

STATION	ESTABLISH? AGENCY	RECOVERED	IDENTIF. ON PHOTO	METHOD OF IDENTIF.	QUAD 8760
1933 NEW COHANSEY LIGHT	U.S.C.& G.S.	yes	1537	PICKED DIRECT	yes
1933 COHANSEY FRONT	U.S.C.& G.S.	yes	1536	SEE FORM	yes
1933 COHANSEY REAR	U.S.C.& G.S.	yes	1536	567	yes
1933 BEACH	U.S.C.& G.S.	yes	1586B	Sub-sta.	yes
1933 COHANSEY	U.S.C.& G.S.	lost	no		
1933 DAVIS	U.S.C.& G.S.	not recovered lost	no		
1936 MON.6060	NJSS	yes	15610	Sub-sta.	yes
1936 MON.6066	NJSS	yes	15610	Sub-sta.	yes
1936 MON.6071	NJSS	yes	1586A	ARCS	yes
1936 MON. 6061	NJSS	yes	no		
1936 MON.6063	NJSS	yes	no		
1936 MON.6065	NJSS	yes	no		
1936 MON.6068	NJSS	yes	no		
1936 MON.6069	NJSS	yes	no		
1936 MON.6074	NJSS	destroyed	no		
BEN DAVIS	USE	yes	1589	Picked direct See Form -667-	yes

1946

IDENTIFICATION REPORT

HORIZONTAL CONTROL

Name of Station	U.S. Army Engineers Quadrangle	Recovery Date	Pricking Data
MONUMENT NO. 6062, 1936	Shiloh	5-29-46	Positive
* MONUMENT NO. 6057, 1936	Shiloh	5-29-46	Positive

Filed in Div. of Photogrammetry- General Files

See the field report for this quadrangle and Identification Report for T-8783 for a listing of the remainder of the horizontal control stations within the area of Survey No. T-8760.

- * Falls to the E of Survey T-8760 in an area for which there is no contemporary survey. Identification of station not available at time of radial plot.

5. Vertical Control:

This work consisted of Bench Mark recovery and establishing spot elevations by 4th order Differential Leveling.

The recovery and leveling was done by John D. Weiler, Photogrammetrist, in May, 1946.

Recovery:

There was only one Bench Mark of the Coast and Geodetic Survey in the entire quadrangle; Tidal Bench Mark No. 3 at Sea Breeze, and it was found destroyed. All basic vertical control was taken from elevations established on Traverse Monuments of the New Jersey Geodetic Control Survey. The order of accuracy of elevations established on these monuments is not known in this office.

Levels:

About 16 miles of 4th order levels were run with a Wye Spirit Level, reading and recording to the nearest .01 of a foot. The maximum error of closure was 0.15 feet and the average error 0.06 feet. No adjustment of elevations was necessary.

Spot elevations were established on easily identifiable photographic points and shown on the photographs in blue ink. They are numbered consecutively from 1 to 18, prefixed with the quadrangle code letters SB. Since only one set of photographs was available at the time this work was done; inspection, horizontal control identification, elevations, and contours are all on one photograph.

In the front of the 4th order level, field record book is an index which includes the following information: spot elevations, page, Linear miles, closure, Field Notes Checked by, adjustment checked by, copy checked by, and Photo. Number.

6. Contours and Drainage:

Contouring was started May 10, 1946 and completed May 24, 1946 by John D. Weiler, Photogrammetrist. The contour interval was 10 feet; and the work done directly on 9-lens photographs nos. 15603, and 15610 by plane table methods. An attempt was made to keep the work as near the center portion of the photographs as possible in order to minimize distortion and large changes in scale.

The contours are isolated and there is no distinguishable drainage pattern in the entire quad. In wooded areas, form lines were put in with a stereoscope preliminary to plane table work, and then checked and resketched in the field. In most instances the results were excellent. The contours were not run out in their entirety in

wooded areas but rather profiles were run across country, interpolating between established elevation points. In open areas contours were penciled in the field, and then shaped under a stereoscope. All elevations taken have not been shown on the map; only those controlling the contour or depicting knolls or depressions.

A plane table traverse was run along the east quadrangle line and project boundary. Considerable contouring was done east of this boundary, since accurate datum as to its locations was not available at time of contouring. However, it will serve as a good check on adjoining maps of other agencies.

7. Mean High Water Line:

Delaware Bay is affected by tide water all along the shore line of this quadrangle. The mean predicted range at Sea Breeze is 5.8 feet.

The shoreline inspections were completed during the last part of April, 1946 by John D. Weiler, Photogrammetrist, and checked the last part of June by George E. Varnadoe, Photogrammetrist.

The work is indicated on single lens photographs 1535-1537 and 1582-1590, and 9-lens photograph 15611 in red ink, using symbols issued for the Project 29 April 1946.

This inspection was done from a small boat, keeping as close to the shore as possible. At frequent intervals the mean high water line was verified on the photographs by measurements from discernible topographic features.

Except for a very few small areas (noted on the photos) the high water line is indefinite. The shoreline is marsh (apparent shoreline) and follows along the edge of a mud bank which is covered by marsh grass. Generally the low water line follows this same line. In some cases the low water line is outside the marsh line (when the mud has sluffed off the banks and flattened out). As the photos were taken at, or very near, mean low water line as described on the photos and is labeled or noted.

8. Mean Low Water Line:

The photographs used for shoreline inspection were flown very close to the time of mean low water. Actual field measurements from natural topographic features to the mean low water line checked very closely to the distances scaled on the photographs. The water line seen on the photographs can safely be assumed to be the mean low water line.

9. Wharves and Shoreline Structures:

There is nothing of importance in this category in the entire quadrangle. There is one wooden pier at Sea Breeze and one at the mouth of Pier Point Creek capable of accomodating only small boats.

10. Details Offshore from the High Water Line:

Since the shoreline was inspected from a small boat it was not feasible to range very far from shore. However, there is a considerable area of shoal from the mouth of Middle Marsh Creek west to Cohansey Cove that will have to be delineated by the Hydrographic Party.

11. Landmarks and Aids to Navigation:

No new Landmarks or Fixed Aids to Navigation were found. One charted landmark and 3 charted aids to navigation were picked direct on the photographs. The names of the fixed aids to Navigation were checked against the 1945 Official Light List. A point on range of the Cohansey inner and outer Range Lights was established to enable the compilation section to determine the Azimuth. Form # 567 for Landmarks and Fixed Aids to Navigation within the quadrangle accompanies this report. Chart Letter 301

12. Hydrographic Control:

Topographic stations were established in accordance with instructions for the project. Monuments were set where natural objects were not available and are standard bronze topographic disks stamped with 3-letter names and the year (1946). They are concrete cast in 6" stovepipe, 24" long.

Two temporary topographic signals were picked and described on the photographs and numbered 6001 and 6002. (Using the last two digits of the quadrangle number and suffixing digits from 1 to 99).

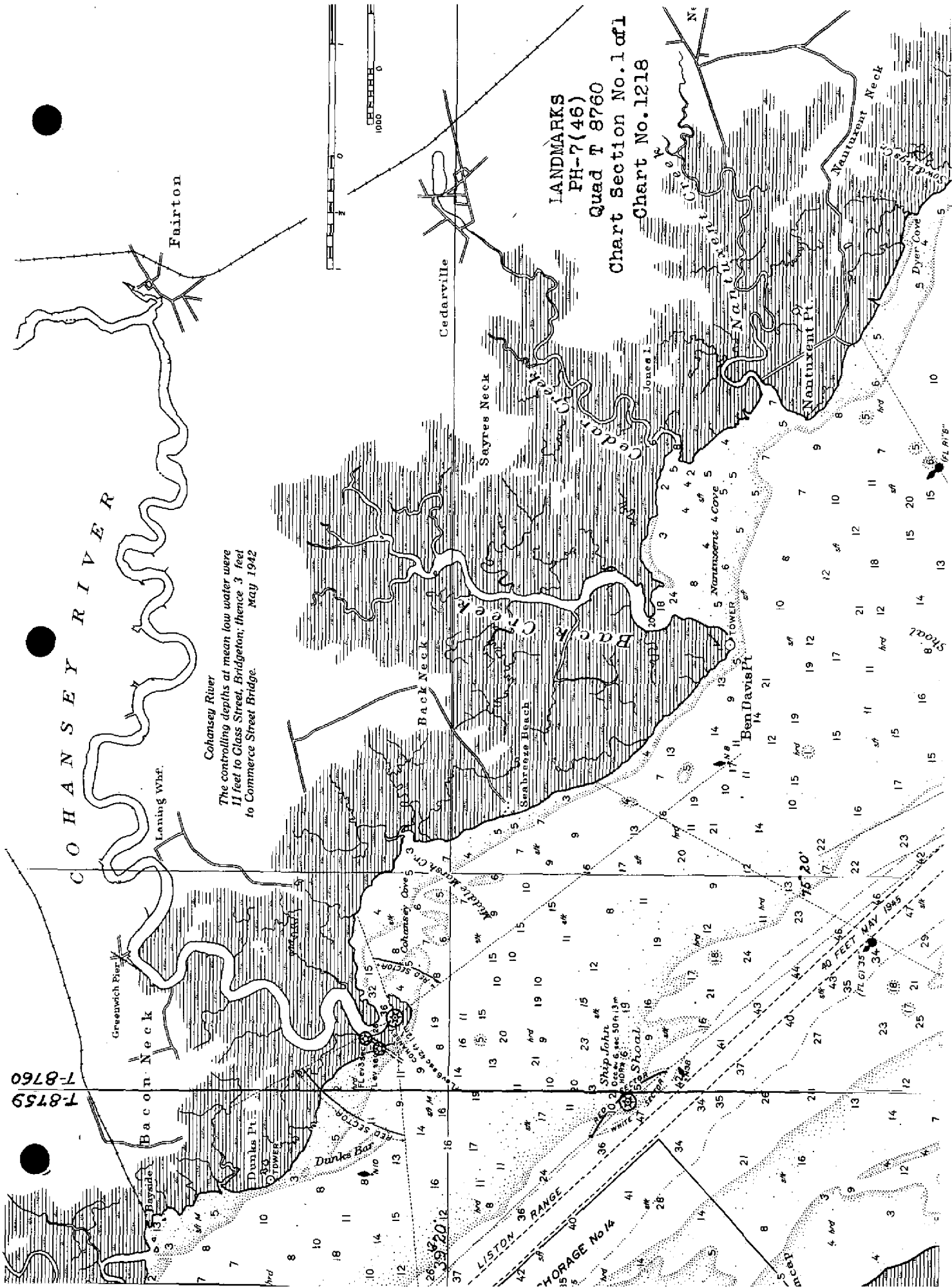
The stations established are listed below:

PAL, 1946	
ODD, 1946	
VAL, 1946	6001, 1946
USE, 1946	6002, 1946
PAD, 1946	
NAT, 1946	

Existing horizontal control that may be used as Hydrographic signals are listed below:

BEACH, 1933
COHANSEY LIGHTHOUSE, 1933
COHANSEY OUTER RG. LT., 1933
COHANSEY INNER RG. LT., 1933
BEN DAVIS, U. S. E.

T-8759
T-8760



LANDMARKS
PH-7(46)
Quad T 8760
Chart Section No. 1 of 1
Chart No. 1218

The controlling depths at mean low water were
11 feet to Glass Street, Bridgeton; thence 3 feet
to Commerce Street Bridge. May 1942

13. Landing Fields and Aeronautical Aids:

There are no landing fields or Aeronautical aids in this quadrangle.

14. Road Classification:

Roads were classified in accordance with instructions dated 30 June 1945. Classification transitions are indicated by red tick marks across the road.

15. Bridges:

There are no bridges over navigable water in the entire quadrangle.

16. Buildings:

There are no buildings in the quadrangle that merit special attention.

17. Boundary Monuments and Lines:

Township lines and names are indicated on the photographs in purple ink. There are three townships in the quadrangle. The division between Greenwich township and Fairfield township follows the center of the Cohansey River. The division between Fairfield township and Lawrence township follows in succession the center lines of Back Creek, Ogden's Creek, and Blew's Run.

18. Geographic Names: 814 ✓ Approved list filed in Div of Charts
Geographic Names Section.

Geographic names will be the subject of a special report Ph-7(46)C by Lowell I. Bass, Engineering Aid.

19. Coast Pilot Information:

Coast Pilot Information will be the subject of a special report by George E. Varnadoe, Photogrammetrist.

20. Inshore Limits of Marsh:

It was not felt necessary to show too much detail of this feature on the photographs, since it is clearly defined and the Compiler should have little interpretive difficulty.

Respectfully submitted:

John D. Weiler
John D. Weiler,
Photogrammetrist

Approved and Forwarded
July 23, 1946:

E. L. Jones
E. L. Jones,
Chief of Party

SYMBOLS

Project Ph-7(46)

12 April 1946

MEAN HIGH WATER LINE (fast line).....	— — — — —
OFFSHORE EDGE OF MARSH (apparent shoreline).....	— — — — —
GRASS IN WATER.....	Gr
INSHORE LIMITS OF MARSH.....	— — — — —
MEAN LOW WATER LINE (definite).....	— — — — —
APPROXIMATE MEAN LOW WATER LINE.....
INTERMITTANT DRAINAGE.....	— — — — —
PERENNIAL DRAINAGE.....	— — — — —
CONTOURS.....	— — — — — or 20 20
PLANE TABLE ELEVATIONS FOR CONTOURS.....	X17 or X17
FLY LEVEL ELEVATIONS.....	CE 12
BENCH MARKS, marked and described.....	⊙ J-16, 1940 (dm)
TOPO STATIONS, marked and described.....	— T. Sta. (dm) MINK, 1946
TOPO STATIONS, NATURAL OBJECTS.....	— T. Sta. (d) 8:11, 1946
LANDMARKS.....	— Landmarks: STACK, metal (55' high)
HYDROGRAPHIC STATIONS, assign No., describe on photo...	— T. Sta. #8703
FIXED AIDS TO NAVIGATION (official light list name)....	— CHERRY PT. LT. 13
TRIANGULATION STATIONS.....	— Δ Smith, 1940.
SUBSTITUTE STATIONS.....	— S. Sta. Δ SMITH, 1940
BOUNDARIES: Refer to U.S.G.S. Bulletin 788 E for symbol, ink in purple or violet ink.	

NOTE: All recovered stations, landmarks, aids are to be picked on the photograph. The picked point should not be inked.

COMPILATION REPORT

MAP MANUSCRIPT, SURVEY NO. T-8760

26. CONTROL:

See layout of control attached to this report.

27. RADIAL PLOT:

The radial plot for the area of this survey was made in the usual manner, using celluloid templates.

Templates, however, were prepared for adjusting differential distortion, as instructed by Commander O. S. Reading by transferring the photograph center and the fiducial marks from a master template (furnished by the Washington Office) to each template used in the radial plot.

Radials were then drawn by adjusting each chamber of the photograph to its corresponding fiducial mark on the template.

The templates were laid on base sheets ruled with grid lines. After some minor errors were eliminated, a plot with satisfactory results was obtained.

Control for the area of this plot was adequate. (See control layout and control data form attached to this report.)

Control identification was good.

Photographic coverage for the area of this survey was adequate.

The positions of pass points and photo (topographic) stations, also photo centers, were transferred to the map manuscript by matching the N.J. State grid lines with their corresponding grid lines on the base sheet.

28. DETAILING:

The compilation is in accordance with the written instructions pertaining to Project No. Ph-7(46) dated 19 July 1946.
Filed in the Div. of Photogrammetry - Office Files.

The photographs and the field inspection were satisfactory for delineation of the map manuscript.

The shoreline, except the easternmost part, in the area of this survey, was traced from a reduction of Map Manuscript for Survey No. T-8783 reduced to 1:20,000. The remainder of the survey was delineated directly from the nine lens, scale 1:20,000, office photographs.

However, due to the difference in the position of common pass points between Surveys Nos. T-8783 and T-8760 amounting to a maximum of 1 mm., it was not possible to transfer the shoreline from the film positive to the map manuscript by matching common projection lines. It was decided, therefore, to radially plot common detail points on the 1:20,000 scale quadrangle

* This report does not state specifically
but the differences between the radial plots
for the shoreline sheet and this quadrangle
were adjusted satisfactorily and methods
evolved to avoid this difficulty in the
future. BBJ

28. DETAILING: (Continued)

and transfer the shoreline by holding to common points.*

(See descriptive report for Survey No. T-8783).

Filed in Div of Photogrammetry- General Files

30. MEAN HIGH WATER LINE:

The mean high water line, or fast solid land has been delineated in accordance with the office interpretation of the photographs and has been shown on the map manuscript in accordance with project instructions. The outer edge of marsh visible above mean high water has also been delineated in accordance with the office interpretation of the photographs.

31. MEAN LOW WATER LINE:

The mean low water line has been delineated on this manuscript in accordance with the field data only in those areas identified by the field unit. The mean low water line accurately identified by the field unit has been shown with an alternate dot and dash line and the approximate position with a dotted black line.

31A SHOAL AND REEF LINES:

There are no shoal or reef lines shown on the map manuscript. See report for T-8783.

31B FORESHORE AREA:

The foreshore area shown consists of grass-in-water, sand, and mud. These features have been delineated in accordance with the field data and with the office interpretation of the photographs.

32. DETAILS OFFSHORE FROM THE MEAN HIGH WATER LINE:

See the report for T-8783.

33. WHARVES AND SHORELINE STRUCTURES:

Several small piers are shown at the junction of Blews Run with Ogden Creek. A concrete bulkhead on the southern shore of Cohansey River has been delineated in accordance with the field data. For information concerning additional piers within the limits of this map manuscript see the report for T-8783.

34. LANDMARKS AND FIXED AIDS TO NAVIGATION:

Refer to Form 567 included with this report. Chart letter 303

35. HYDROGRAPHIC CONTROL:

Seven recoverable photo (topographic) stations have been shown on the map manuscript. Form No. 524 is being submitted for each of these stations. A descriptive list of the stations has been compiled and is attached to this report.
Form 524 Cards are filed in Div. of Photogrammetry - General Files

37. DISCREPANCY OVERLAY:

Descriptive and explanatory notes concerning the doubtful topographic features of the map manuscript have been made on a discrepancy overlay. *Discrepancies have been corrected by the field editor.*

38. GEOGRAPHIC NAMES: *Approved list filed in Div of Charts, Geographic Names Section.*

Geographic names were taken from a geographic names investigation, reviewed by the Washington Office, and furnished the compilation office on a corrected copy of the U.S. Army Engineers, Shiloh, N. J.-Del. quadrangle. Several discrepancies between the investigation and the field inspection data are noted on the discrepancy overlay. A list of geographic names is attached to this report.

39. JUNCTIONS:

The junctions with Survey No. T-8759 to the west and with Survey No. T-8784 to the east have been made and are in agreement.

The junction with Survey No. T-8757 to the north will be made when that survey is compiled. *Junction checked by reviewer.*

To the south is an all-water area.

40. HORIZONTAL ACCURACY:

The position of all detail of importance is believed to be within 0.5 millimeter.

41. RECOMMENDATIONS FOR FUTURE SURVEYS:

Map Manuscript, Survey No. T-8760 is complete with respect to all known topographic details necessary for charting, except the charted features not definitely revealed by photography. See report for T-8783.
Filed in Div of Photogrammetry General Files.

44. COMPARISON WITH EXISTING TOPOGRAPHIC QUADRANGLES:

United States Army Engineers, Shiloh, N.J.- Del. Quadrangle, scale 1:62,500, edition of 1941.

Details common to the map manuscript and to the quadrangle are, in general, in good agreement with the exception of the following:

44. COMPARISON WITH EXISTING TOPOGRAPHIC QUADRANGLES:(Continued)

Marsh has been shown along both sides of Sea Breeze Road but appears as firm ground on the quadrangle.

A network of unimproved roads north of Drumbo Creek, on the quadrangle, have been shown as a network of drainage ditches on the map manuscript.

One road parallel to the shoreline at Sea Breeze and several floating aids to navigation appear on the quadrangle but were not shown on the map manuscript because no data were available.

Unimproved roads at Sea Breeze shown on the map manuscript are shown as graded roads on the quadrangle.

See Review Report.

45. COMPARISON WITH NAUTICAL CHARTS:

T-8760 has been compared with chart No. 1218, scale 1:80,000, published January 1942, corrected to July 13, 1946.

The following topographic information shown on T-8760 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 will be completed by the hydrographic party.

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

Respectfully submitted:
16 December 1946

Paul E. Rudolph
Photogrammetric Aid
Compilation and
Compilation Report

Harry R. Rudolph
Supervisor

Raymond Glaser
Photogrammetric Aid
Photogrammetric Office Reviewer

Approved and Forwarded
21 January 1947

William F. Deane
Officer in Charge
Baltimore Photogrammetric Office

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

TO BE CHARTED

STRIKE OUT ONE

NONFLOATING AIDS GR 66-68NDMA B165 6906C CHHARTS

Salem, New Jersey 10 July 1946

I recommend that the following objects which have ~~three~~ *not* been inspected from seaward to determine their value as landmarks, be charted on ~~(deleted from)~~ the charts indicated. _____ J.D. Weller; Photogrammetrist E.L. Jones.

The positions given have been checked after listing by

Chief of Party

[illegible]

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.

STRIKE OUT ONE

NONTECHNICAL LANDMARKS FOR CHARTS

Salem, New Jersey

10 July, 1946

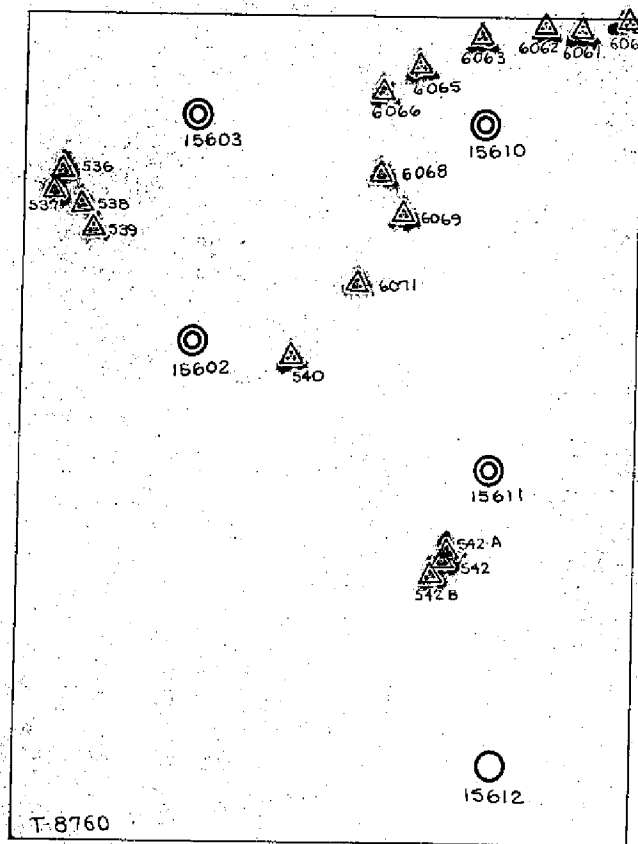
I recommend that the following objects which have ~~(have not)~~ been inspected from seaward to determine their value as landmarks, be charted on ~~(deleted from)~~ the charts indicated.

The positions given have been checked after listing by

Chief of Party

[illegible]

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.



~ Legend ~

- Office photograph
- Field photograph
- △ Triangulation station

Note: All horizontal control stations (accompanied with their respective numbers ie. 536, 6066) are listed on the following page.

LAYOUT SKETCH
PROJECT NO. PH-7-46 C
SURVEY NO. T-8760.

LIST OF CONTROL

PROJECT NO. PH-7-(46)-C

SURVEY NO. T-8760

536 COHANSEY RIVER REAR RANGE LIGHT, 1933; r. 1946.
537 COHANSEY RIVER FRONT RANGE LIGHT, 1933; r. 1946
538 NEW COHANSEY LIGHT, 1933; r. 1946
539 COHANSEY, 1933
540 BEACH, 1933; r. 1946
542 DAVIS, 1933
542-A BEN DAVIS, (U.S.E.) r. 1946
542-B BEN DAVIS, 1839-40
6060 MONUMENT NO. 6060, 1936; r. 1946
6061 MONUMENT NO. 6061, 1936; r. 1946.
6062 MONUMENT NO. 6062, 1936; r. 1946
6063 MONUMENT NO. 6063, 1936; r. 1946
6065 MONUMENT NO. 6065, 1936; r. 1946
6066 MONUMENT NO. 6066, 1936; r. 1946
6068 MONUMENT NO. 6068, 1936; r. 1946
6069 MONUMENT NO. 6069, 1936; r. 1946
6071 MONUMENT NO. 6071, 1936; r. 1946

DELAWARE RIVER

PROJECT NO. PH-7 (46)

DESCRIPTION OF THE RECOVERABLE PHOTO (TOPOGRAPHIC) STATIONS
FOR MAP MANUSCRIPT, SURVEY NO. T-8760.

"HIVE, 1946" - Station is located approximately 2.0 miles west of Greenwich, N. J. in Cohansey River. Station is middle pile in row of five, and consists of cluster of three piles.

"PAD, 1946" - Station is located on the east side of Delaware Bay at Nantuxent Cove, 0.75 mile east of the mouth of Back Creek, at the southwest tip of a small pond. The station is marked by a standard topographic disk stamped "PAD 1946", set in the top of a 6" diameter concrete monument and extends 6" above ground.

"QUO, 1946" - Station is located on east shore of Delaware Bay, approximately 6 miles north of Fortescue, N.J. and approximately 825 feet south of mouth of Cedar Creek on southwest tip of point. Station is a standard U.S.C. & G.S. topographic disk set in a concrete monument projecting 6" above ground, stamped "QUO, 1946".

* "PAL, 1946"

* "NAT, 1946"

* "USE, 1946"

* "VAL, 1946"

* See descriptive report Shoreline Survey No. T-8783 for descriptions.
Filed in Div. of Photogrammetry- General Files

LISTED BY: Ruth E. Rudolph
Ruth E. Rudolph
Photogrammetric Aid

CHECKED BY: Raymond Glaser
Raymond Glaser
Photogrammetric Aid

✱

Field Edit Report of Map Manuscript T-8760
Project Ph-7(46)
R. J. Sipe, Chief of Party

The field edit of this quadrangle was accomplished during the period 20 October to 31 October 1947 by Donald G. Flippo, 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.

18. Geographic Names: In addition to the geographic names shown on the field edit print, the following additions and changes are recommended:

- ✓ a. Nancy Island has been incorrectly located on the island which should be Ragged Island.
- b. Tindall Island is known by that name but is better known as Nancy Island.
"Tindall Island" approved by Geographic Names Section.
- ✓ c. Sheep Pen Creek has been incorrectly located but has been corrected on the field edit print.
- ✓ d. Abbotts Creek was called Sheep Pen Creek on the field edit print but has been corrected.
- ✓ e. Bridges Sticks Creek was located where Rock Creek should have been and vice versa. This has been corrected on the field edit print.
- ✓ f. Ragged Island and Abbotts Creek are to be added to the geographic names.

The following gentlemen recommended the changes having to do with Nancy, Tindall, and Ragged Islands:

Mr. K. Renne, Rt. No. 2, Bridgeton, N.J.
Mr. Leonard Stock, Same address as above.
Mr. J. Sutton, Greenwich, N.J.

All other changes or additions were recommended by the following named gentlemen:

Mr. Frank Holton, Fairton, N.J.
Mr. Paul Johnson, Rt. No. 4, Bridgeton, N.J.
Mr. Carl Dix, Same as above

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

All additions and corrections have been noted 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 prints.

47. Adequacy of the Compilation: Only one small road was deleted during the field edit. All trails were left as they are used quite frequently by trappers etc. Very few buildings had to be deleted as this phase of the compilation seemed to be quite adequate.

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.

48. Accuracy Tests: Most of the area in this quadrangle is tidal marsh flats and only a small portion is above the 10-foot contour. A visual inspection of the original field contouring indicates that this map will comply with the vertical accuracy requirements.

The field edit party has made no attempt to verify the horizontal accuracy of this map.

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

Mr. Frank Holton
Fairton, New Jersey

Respectfully submitted



Donald G. Flippo
Photogrammetric Aid
1 November 1947

Division of Photogrammetry
Review Report of
Topographic Map Manuscript T-8760

Subject numbers not used in this report have been adequately covered in other parts of the descriptive report.

26. Control.--The following triangulation stations, listed as lost by the field inspection party, were removed from the map manuscript:

Ben Davis, 1839-40
Cohansey, 1933

The names of the triangulation and topographic stations on the map manuscript were changed to conform with the specifications in paragraph 23 of Photogrammetry Instructions No. 17, 1947.

28. Detailing.--The state boundary line between New Jersey and Delaware was added to the map manuscript.

31. Low Water and Shoal Lines.--A note referring to a shoal area in the vicinity of the mouth of the Cohansey River was removed from the map manuscript. The shoal area is not visible on the photographs.

34. Landmarks and Aids to Navigation.--The geographic position for the 55 foot steel tower was corrected on the Form 567. The tower is at the triangulation station, "Ben Davis, U.S.E." The Nautical Chart Section has been notified of this change. See L-300 (1947)

40. Geographic Names.--Names were added to the map manuscript from the approved list of names submitted by the Geographic Names Section.

44. Comparison with Existing Topographic Surveys.--

T 63	1:20,000	1841
T 141	1:10,000	1841
T 152	1:20,000	1842
T 155	1:20,000	1842, 43
T 157	1:20,000	1842
T 1550	1:20,000	1882, 83
T 1565	1:20,000	1885
T 1661	1:20,000	1884, 85
USGS, Shiloh 15' Quadrangle	1:62,500	1931
USE, Shiloh Quadrangle	1:62,500	1941

These surveys are superseded in common areas by T-8760.

Two notable differences between the USC&GS and the USGS surveys and the map manuscript are:

The shoreline has receded up to 200 meters since the older surveys were made.

The new channel, "Cut Through", into the Cohansey River is not shown on the surveys.

Two isolated ten foot contours that are on the USE Quadrangle at Lat. $39^{\circ}21.5'$, Long. $75^{\circ}19.0'$ and at Lat. $39^{\circ}20.8'$, Long. $75^{\circ}17.4'$ are not on the map manuscript. The field edit verified the fact that these contours should not be shown.

A ten foot contour that is on the map manuscript at Lat. $39^{\circ}20.5'$, Long. $75^{\circ}15.0'$ does not appear on the USE Quadrangle.

45. Comparison with Nautical Charts.--Chart No. 1218, 1:80,000, 1942, Corr. 1947.

The map manuscript has not been applied to the nautical chart. They are in good agreement in common area.

48. Accuracy Test.--There was no vertical accuracy test made on this quadrangle. (See Field Edit report). This map complies with the national standard of map accuracy requirements.

49. Overlay.--An overlay was prepared showing marginal data, road classification, triangulation stations, bench marks and spot elevations that are to be shown by the smooth draftsman.

Reviewed by:

Reviewed under direction of:

Charles Theurer
C. Theurer
3-17-48

S. V. Griffith
S. V. Griffith
Chief, Review Section

APPROVED BY:

B. G. Jones 4/48
Technical Assistant to the
Chief, Div. of Photogrammetry

Stephen L. Green
Chief, Nautical Chart Br.
Division of Charts

K. T. Adams
Chief, Div. of Photogrammetry

C. K. Green
Chief, Div. of Coastal Surveys

GEOGRAPHIC NAMES

- Ayres Creek ✓
- Back Creek ✓
- Back Creek Point ✓
- Back Neck ✓
- Back Neck Road ✓
- Bay Point ✓
- Bear Swamp Creek ✓
- ~~Ben's~~ Point - Ben Davis Point ✓
- Blews Run ✓
- Bridges Sticks Creek ✓
- Cabin Creek ✓
- Cabin Island ✓
- Cohansey Cove ✓
- Cohansey Island ✓
- Cohansey Point ✓
- Cohansey River ✓
- Cumberland County ✓
- Cut Through ✓
- Dayton Creek ✓
- Delaware River (for title only) ✓
- Delaware Bay ✓
- Division Creek ✓
- Drum Bed ✓
- Drumbo Creek ✓
- Eastern Cross ✓
- Fairfield Township ✓
- Green Swamp ✓

- Greenwich Township ✓
- Husted Landing ✓
- Lawrence Township ✓
- Loyds Corner ✓
- Middle Marsh Creek ✓
- Nancy Island ✓
- Nantuxent Cove ✓
- Ogden Creek ✓
- Oyster Gut ✓
- Pier Point Creek ✓
- Pier Point Neck ✓
- Rock Creek ✓
- Rockville Road ✓
- Sayres Neck ✓
- Sayres Point ✓
- Sea Breeze ✓
- Sea Breeze Road ✓
- Sheep Pen Creek (n. tributary of Abbot creek, not the main creek) ✓
- Tarpon Cove ✓
- Tarpon Gut ✓
- ~~Tindall Island~~ Tindall Island ✓
- Tweed Creek ✓
- Western Cross ✓
- Abbot's Creek ✓
- Ragged Island + P. is Hays ✓
- Hopewell Township ✓

Names preceded by .
are approved. 3/16/48
L. Heck

NAUTICAL CHARTS BRANCH

SURVEY NO. 8760

Record of Application to Charts

[illegible]

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.