

9498

N&S

✓

Diag. Cht. No. 1216-2

Form 504

U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Topographic

Field No. Ph-59 (50) Office No. T-9498 N & S.

LOCALITY

State New Jersey

General locality Long Beach

Locality Surf City

194 50

CHIEF OF PARTY

Harry F. Garber, Chief of Party
Hubert A. Paton, Baltimore Photo. Office

LIBRARY & ARCHIVES

DATE September 28, 1955

6-1870-1 (11)

9498
N&S

DATA RECORD

T- 9498

Project No. (II): Ph-59(50)

Quadrangle Name (IV):

Field Office (II): Pleasantville, N. J.

Chief of Party: Harry F. Garber

Photogrammetric Office (III): Baltimore, Md.

Officer-in-Charge: H. A. Paton

Instructions dated (II) (III): 26 May 1950
22 June 1950

Copy filed in Division of
Photogrammetry (IV)
Office Files.

Method of Compilation (III): Graphic and Kelsh Plotter

Manuscript Scale (III): 1:10,000

Stereoscopic Plotting Instrument Scale (III): 1:10,000

Scale Factor (III): 1.000

Date received in Washington Office (IV):

Date reported to Nautical Chart Branch (IV):

Applied to Chart No.

Date:

Date registered (IV):

AUG 23 1955

Publication Scale (IV): 1:24,000

Publication date (IV):

Geographic Datum (III): N. A. 1927

Vertical Datum (III): MSL

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): BONNET, 1935

Lat.: 39° 39' 29.469" (908.9m) Long.: 74° 11' 41.866" (998.0m)

Adjusted

~~coordinates~~

Plane Coordinates (IV):

State:

Zone:

Y=

X=

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

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

DATA RECORD

Field Inspection by (II): M. A. Stewart Date: Oct. 1950

Planetable contouring by (II): M. A. Stewart Date: Sept.-Oct. 1950

Completion Surveys by (II): Joseph K. Wilson Date: Dec 1951 to Jan 1952

Mean High Water Location (III) (State date and method of location): 4-16-50, Photogrammetric

Projection and Grids ruled by (IV): TLJ Date: 1-14-51

Projection and Grids checked by (IV): HDW Date: 1-16-51

Control plotted by (III): R.M. Whitson Date: 4-10-51

Control checked by (III): F. J. Tarcza Date: 4-11-51

Radial Plot ~~of stereoscopic~~ Date: 5-2-51
~~and extension~~ by (III): F. J. Tarcza

Planimetry Date:
 Stereoscopic Instrument compilation (III): M.G. Misulia, Stereoplanigraph
 Contours in NW corner only. ✓ Date: 30 Oct. 1950

Manuscript delineated by (III): J.C. Richter Date: 6-1-51
 L.A. Senasack Date: 6-8-51
 J. Honick Date: 11-3-51

Photogrammetric Office Review by (III): R. Glaser Date: 11-16-51

Elevations on Manuscript R. Glaser Date: 11-16-51
 checked by (II) (III):

Camera (kind or source) (III): U.S.C. & G.S. wide angle single lens camera 6" focal length.

Number	Date	PHOTOGRAPHS (III) Time	Scale	Stage of Tide
50-0-985 thru 50-0-991	4-16-50	1321--1328	1:10,000	0.5' above MLW
50-0-997 thru 50-0-1004	"	1336-1339	"	0.4' above MLW
50-0-1009 & 50-0-1010	"	1348-1349	"	0.4' above MLW
50-0-1044 thru 50-0-1051	"	1415-1417	"	(0.2 above MLW (0.3' (ocean))

from Predicted Tide Tables ^{Tide (III)}

Reference Station: **Sandy Hook**
 Subordinate Station: **Manahawkin Bridge**
 Subordinate Station: **High Point (Harvey Cedars)**
Barnegat Inlet (E. of Lighthouse)

Ratio of Ranges	Mean Range	Spring Range
	4.6	5.6
0.3	1.5	1.8
0.2	0.8	1.0
0.7	3.1	3.8

Washington Office Review by (IV): **K. N. Maki**

Date: **10-28-52**

Final Drafting by (IV): **F. L. JOHNSON - T-9498-N-N.J. -**
T-9498-S-N.J. -

Date: **12-10-54**
12-14-54

Drafting verified for reproduction by (IV): **W.O. Hallum T-9498-N**
W.O. Hallum T-9498-S

Date: **1-24-55**
1-25-55

Proof Edit by (IV):

Date:

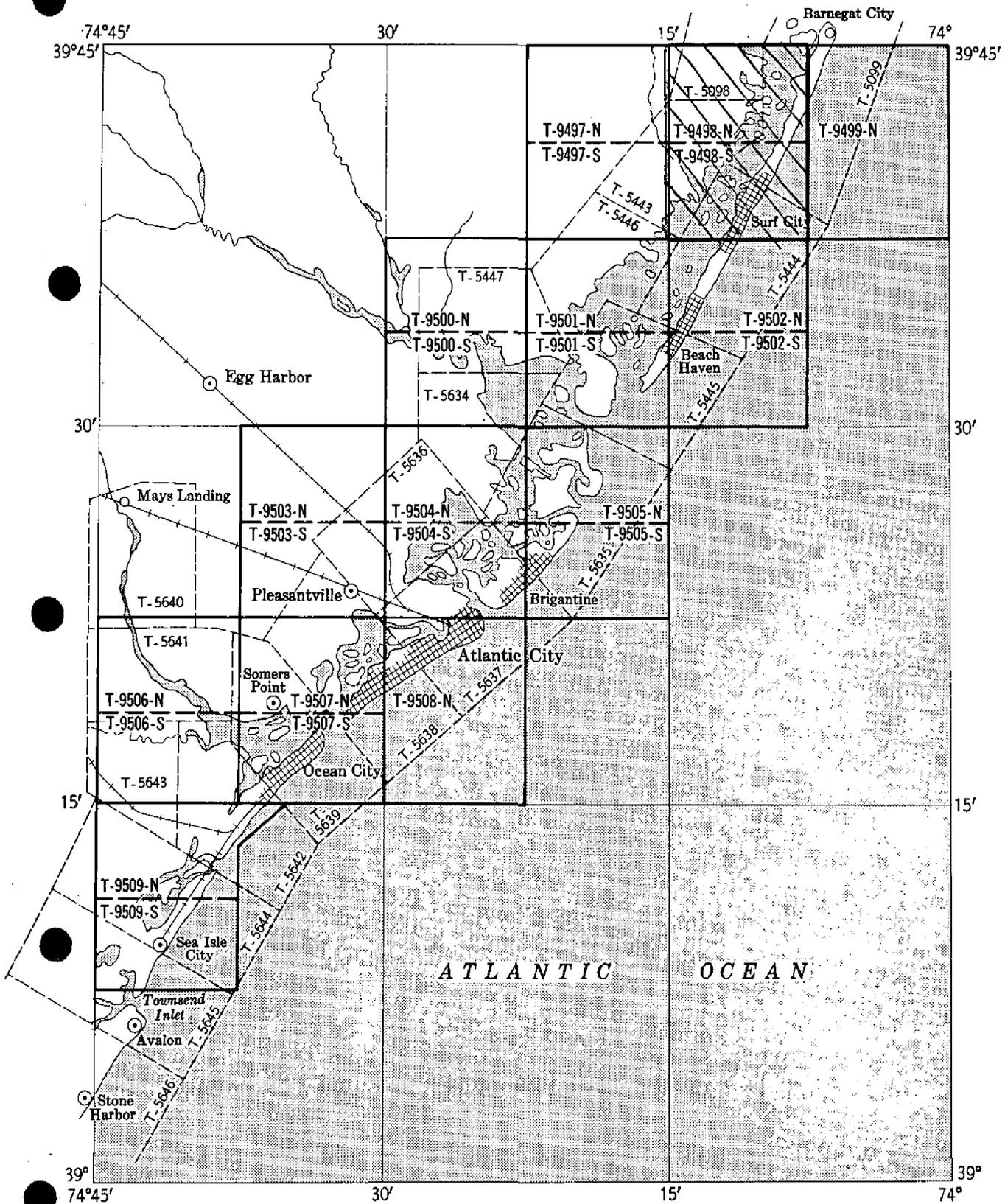
Land Area (Sq. Statute Miles) (III): **29**
 Shoreline (More than 200 meters to opposite shore) (III): **69 statute mi**
 Shoreline (Less than 200 meters to opposite shore) (III): **61 statute mi**
 Control Leveling - Miles (II): **13.2**
 Number of Triangulation Stations searched for (II): **26** Recovered: **21** Identified: **16**
 Number of BMs searched for (II): **18** Recovered: **12** Identified: **7**
 Number of Recoverable Photo Stations established (III): **11***
 Number of Temporary Photo Hydro Stations established (III): **None**

Remarks:

3 Δ
3 Bench Marks with T-9497

~~* No data available for GAGE, 1950 listed under item 11~~
 on T-9499

NEW JERSEY COAST, Townsend Inlet to Barnegat City



T-9497-N, T-9497-S to T-9509-N, T-9509-S are Topographic Maps
 Mapped by the U.S.C. and G.S. from aerial photographs to be taken in 1950
 Scale 1:10,000

Summary to Accompany T-9498

Topographic map T-9498 is one of 13 similar maps in project Ph-59(50). This project covers the New Jersey coast from Townsend Inlet north to Barnegat City. T-9498 is one of the three most northerly maps in the project. This map was compiled almost entirely by graphic methods. A small portion of the extreme northwest area of the map was compiled on the stereoplanigraph. The field operations preceding compilation included complete field inspection, the establishment of some additional horizontal control and the determination of numerous elevations for plane-table contouring and to control the stereoplotting instruments vertically. The compilation was at a scale of 1:10,000. The manuscript consists of 2 sheets each $3\frac{3}{4}$ min. in latitude by $7\frac{1}{2}$ minutes in longitude. The entire map was field edited. The map is to be published by the Geological Survey at a scale of 1:24,000 as a standard $7\frac{1}{2}$ ' topographic quadrangle. The registered copies under T-9498 will include 2 one-half quadrangle cloth-mounted prints at scale 1:10,000 identified as T-9498 N/2 and T-9498 S/2 and a cloth-mounted color print at scale 1:24,000. Hydrographic information furnished by this Bureau, depth curves and soundings, will be included on the color print.

FIELD INSPECTION REPORT
QUADRANGLE T-9498
Project Ph-59

Harry F. Garber, Chief of Party

The field work for this quadrangle was done under the direction of Mr. George E. Varnadoe, Cartographic Engineer. In addition to Page 3, the work was accomplished by the following personnel:

<u>Name and Title</u>	<u>Phase</u>	<u>Date</u>
E. T. Jenkins Cartographer	Horizontal Control Recovery and Identification - Shoreline Inspection	June-Aug. 1950
H. R. Moore Cart. Sur. Aid	Vertical Control Recovery and Identification	July 1950
M. A. Stewart Cart. Sur. Aid	Fly Levels	July-Aug. 1950

2. AREAL FIELD INSPECTION

Barnegat Bay, Manahawkin Bay, tide water creeks and coves, and the low marsh bordering these, comprise approximately seventy five per cent of the area.

A part of the town of Barnegat falls within the quadrangle (on its northern boundary), as well as several towns and municipalities on Long Beach Island - (For a description of this island, see report for T-9502). Except along the highway, causeway and on the island, the area is sparsely settled, being mostly woodland with an occasional small farm. The area is adequately served by a system of hard-surfaced and secondary roads.

The photographs were of good quality and no difficulty was encountered in their interpretation. They being taken when the trees were bare of foliage was especially beneficial when the stereoscope was used.

The field inspection is believed to be complete. However, due to new construction, the field editor should be on the alert for this, especially on Long Beach Island.

3. HORIZONTAL CONTROL

All known horizontal control was searched for and reported on Form 526.

Two standpipes, SURF CITY STANDPIPE and HIGHPOINT STANDPIPE, were located by four directions with a Wild T 2 theodolite from four or more triangulation stations, using intersection stations for azimuth.

A point was located and identified opposite each photo. center (opposite the line of flight), for the beach flight. These points are triangulation stations pricked direct, substitute stations for triangulation, and 4 control points A to D. The control points were located by triangulation methods, observing three or more directions on four or more triangulation stations with the Wild T 2 theodolite.

In addition to stations not established by the U.S.C.&G.S. and the aforementioned control points, two stations CONKLIN and VOL - established by the U.S.E.D. - were identified. The order of accuracy is unknown.

The stations reported lost are:

Brant Beach Water Tank
High Point Water Tank

4. VERTICAL CONTROL

All known vertical control was searched for and reported on Form 685A.

(a) Five bench marks were used. They are:

Y 6	N.J.G.C.S.	Mon. 5296
P 7	"	" 5298
S 7		

(b) 13.2 Miles of differential levels were run with a Wye level to supplement elevations for contouring. The levels began and closed at bench marks. The greatest error of closure was 0.48, and adjustments were prorated according to the number of set-ups.

(c) The first and last level designated level points are: 98-1 to 98-6 and 98-10 to 98-26 (98-7 to 98-9 was used in T-9499.)

5. CONTOURING AND DRAINAGE

The contouring was done by plane-table methods directly on single lens 1:10,000 scale photographs at a contour interval of ten (10) feet, east of highway U.S. 9 (N.J. 4) (as indicated on page 2) and by stereoscopic instrument in the Washington Office west of this highway.

The natural drainage from the mainland is by small creeks into the bays, and by seepage on the island.

The highest elevation is west of the highway, in the area contoured by the stereoscopic instruments.

6. WOODLAND COVER

Classified in accordance with current instructions.

7. SHORELINE AND ALONGSHORE FEATURES

Bulkheads and piers built since the date of photography were located directly on the field photographs by observed directions and distances from nearby identifiable topographic features. It is believed that the photograph scale correction would not appreciably affect these short distances.

(a) Little difficulty was encountered in the delineation of the mean high water line. This line was established on the ocean side by measurements from nearby topographic features.

(b) The low water line was delineated where possible either by visual observation or by measurements from topographic features.

(c) The foreshore was classified as necessary on the photographs.

(e) Docks, wharves, and piers not clearly discernible on the photographs were delineated thereon.

(f) The only submarine cable in the quadrangle is shown alongside the bascule bridge on the Manahawkin, Long Beach Island Causeway.

8. OFFSHORE FEATURES

Offshore features not discernible and classified on the photographs were located by sextant fixes.

9. LANDMARKS AND AIDS

(a) Form 567 and a chart section are being submitted covering all landmarks in the area. The positions of two were verified by triangulation.

(c) There are no aeronautical aids within the quadrangle.

(d) Fixed aids to navigation were located in accordance with the project instructions and reported on Form 567.

10. BOUNDARIES, MONUMENTS AND LINES

This will be the subject of a special report to be submitted by Mr. R. L. McGlinchey, Cartographic Survey Aid. *General files, Div. of Photogr.*

11. OTHER CONTROL

Recoverable topographic stations are:

Ago 1936
Bat 1936
Blue 1950
Brick 1950
Chy. Yellow Frame House 1935
~~Cabe 1950~~ on 9449
Lookout Tower 1950
Rust 1950
Ship Bottom C. G. Cupola 1935

12. OTHER INTERIOR FEATURES

Roads and buildings were classified in accordance with the current instructions. It is to be noted that in places the highway on Long Beach Island is many lanes wide, due to the old and new highways nearby coalescing and the area between being of the same type structure.

Bridge and cable data are recorded on the photographs. A copy of a letter concerning discrepancies between published and field measurements of a bridge will be found with quadrangle T-9507.

Approved by:

Harry F. Garber
Harry F. Garber
Chief of Party

Submitted by:

George E. Varnadoe
George E. Varnadoe
Cartographic Engineer

24 Nov. 1950

MAP T. 9498

PROJECT NO. Ph-59(50)

SCALE OF MAP 1:10,000

SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR Y-COORDINATE LONGITUDE OR X-COORDINATE		DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS		DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS		FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS	
			FORWARD	(BACK)	FORWARD	(BACK)		FORWARD	(BACK)	FORWARD	(BACK)
✓ HIGH POINT STANDPIPE, 1950		N.A. 1927	39 42	27.717				854.8	(995.6)		
			74 08	05.847				139.3	(1290.0)		
✓ SURF CITY STANDPIPE, 1950		"	39 39	49.048				1512.7	(337.8)		
			74 09	55.917				1332.9	(97.3)		
✓ BEACH ARLINGTON, 1932	G-1257 Pg. 11	"	39 38	40.269				1241.9	(608.5)		
			74 10	52.563				1253.9	(177.3)		
✓ BEACH ARLINGTON STANDPIPE, 1932	G-1447 Pg. 29	"	39 38	39.573				1220.5	(629.9)		
			74 10	53.919				1285.6	(145.0)		
✓ BONNET, 1935	G-3126 341	"	39 39	29.469				908.9	(941.5)		
			74 11	41.866				998.0	(432.4)		
✓ CAMP WHALEN CUPOLA, 1935	G-3126 340	"	39 41	48.820				1505.7	(344.7)		
			74 08	40.308				960.4	(469.2)		
✓ FLAT, 1935	G-3126 341	"	39 42	06.846				211.1	(1639.3)		
			74 10	41.101				979.2	(450.3)		
GULF, 1935	G-3126 333	"	39 45	03.3207				102.4	(1748.1)		
			74 11	26.967				642.0	(786.4)		
✓ GUN, 1935	G-3126 340	"	39 43	15.245				470.2	(1380.3)		
			74 10	18.102				431.1	(997.9)		
✓ HARVEY CEDARS, 1932	G-1447 18	"	39 41	25.381				782.8	(1067.7)		
			74 08	36.224				863.1	(566.5)		
✓ HARVEY CEDARS COAST GUARD CUPOLA, 1935	G-3126 341	"	39 41	25.50				786.4	(1064.1)		
			74 08	37.09				883.8	(545.9)		

1 FT. - 3048006 METER
COMPUTED BY J.C. Richter

DATE 14 Dec. 1950

CHECKED BY M.F. Kirk

DATE 2 Jan. 1951

M-2388-12

MAP T. 9498

PROJECT NO Ph-59(50)

SCALE OF MAP 1:10,000

SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y -COORDINATE LONGITUDE OR x -COORDINATE		DISTANCE FROM GRID IN FEET. OR PROJECTION LINE IN METERS		DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS		FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS
			FORWARD	(BACK)	FORWARD	(BACK)		FORWARD	(BACK)	
✓ POPULAR, 1935	G-3126 Pg. 341	N.A. 1927	39 74	38 13	41.216 08.640			1271.1 206.0	(579.3) (1224.6)	
✓ SURF, 1932:	G-1447 Pg. 18	N.A. 1927	39 74	39 09	48.864 55.088			1507.0 1313.1	(343.4) (117.2)	
✓ TURTLE, 1935	G-3126 333	"	39 74	40 12	56.981 04.013			1757.4 95.6	(93.0) (1334.2)	
✓ MON. 5292, NJGCS 1937	N.J. G.C.S.	"	301, 2,140,	543.34 618.67				470.4 188.6	(1053.6) (1335.4)	
✓ MON 5292, NJGCS, 1941	"	"	298, 2,138,	856.00 830.69				1175.3 1167.6	(348.7) (356.4)	
✓ MON 5293, NJGCS 1941	"	"	297, 2,138,	741.69 233.01				835.7 985.4	(688.3) (538.6)	
✓ MON 5294, NJGCS, 1936	"	"	294, 2,135,	146.21 923.36				1263.8 281.4	(260.2) (1242.6)	
✓ MON 5295, NJGCS, 1936	"	"	292, 2,135,	727.06 112.51				831.2 34.2	(692.8) (1489.8)	
✓ CONKLIN USE, 1946	USE	"	329, 2,141,	538.91 342.78				1383.5 409.3	(140.50) (1114.7)	
✓ RUSTIC USE, 1946	"	"	309, 2,144,	301.92 549.85				1311.2 1386.8	(212.8) (137.2)	
✓ VOL. USE, 1946	"	"	331, 2,150,	707.57 662.14				520.5 201.8	(1003.5) (1322.2)	
✓ MON. 5296 NJGCS, 1937	NJGCS	"	289, 2,133,	007.83 145.42				1221.6 958.7	(302.4) (565.3)	

1 FT. = 3048008 METER.

COMPUTED BY J.C. Richter

DATE 14 Dec. 1950

CHECKED BY M.F. Kirk

DATE 2 Jan. 1951

M-2388-12

MAP T-9498

PROJECT NO Ph-59(50)

SCALE OF MAP 1:10,000

SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR ψ -COORDINATE LONGITUDE OR x -COORDINATE	DISTANCE FROM GRID IN FEET. OR PROJECTION LINE IN METERS		DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS		FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS
				FORWARD	(BACK)		FORWARD	(BACK)	
Sub. Pt. BONNET, 1935		N.A. 1927	39 39 74 11				830.9 831.3	(1019.5) (599.0)	
Sub. Pt. CONKLIN, 1946		"	Plotted graphically						
Sub. Pt. FLAT, 1935		"	39 42 74 10				211.6 1035.9	(1638.8) (393.6)	
Sub. Pt. GULF, 1935		"	39 45 74 11				96.8 633.1	(1753.7) (795.3)	
Sub. Pt. GUN, 1935		"	39 43 74 10				620.5 391.9	(1230.0) (1037.1)	
Sub. Pt. HARVEY CEDARS, 1932		"	39 41 74 08				613.5 1026.0	(1237.0) (403.7)	
Sub. Pt. POPULAR, 1935		"	39 38 74 13				1410.2 251.3	(440.2) (1179.3)	
Sub. Pt. TURTLE, 1935		"	39 40 74 12				1825.8 104.0	(24.6) (1325.8)	
Sub. Pt. VOL. USE, 1946		"	Plotted graphically						

1 FT. = 3048006 METER

COMPUTED BY J.C.Richter

DATE 14 Dec. 1950

CHECKED BY M.F.Kirk

DATE 3 January 1951

M-2388-12

MAP T. 9498

PROJECT NO. Ph-59(50)

SCALE OF MAP 1:10,000

SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR ν -COORDINATE LONGITUDE OR λ -COORDINATE		DISTANCE FROM GRID IN FEET. OR PROJECTION LINE IN METERS		DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS		FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS
					FORWARD	(BACK)		FORWARD	(BACK)	
CONTROL POINT "B", 1950		N.A. 1927	39 40	27.494				847.9	(1002.5)	
			74 09	34.647					825.7	(604.2)
CONTROL POINT "A", 1950		"	39 39	40.584				1251.7	(598.8)	
			74 10	48.930					1166.4	(263.9)
Sub. Pt. CONTROL POINT "A" 1950		"	39 39					1318.9	(531.6)	
			74 10					1229.8	(200.5)	
CONTROL POINT "C", 1950		"	39 42	28.947				892.8	(957.7)	
			74 08	49.149					1170.8	(258.5)
Sub Pt CONTROL POINT "C", 1950		"	39 42					927.2	(923.3)	
			74 08					1226.2	(203.1)	
Sub Pt McKINLAY, 1932		"	39 43					362.5	(1488.0)	
			74 14					1414.8	(14.2)	
CONTROL POINT "D", 1950		"	39 43	10.355				319.4	(1521.1)	
			74 07	50.592					1205.0	(224.1)
Sub. Pt. CEDAR RUN, 1935		"	39 38					1220.7	(630.0)	
			74 14					1081.2	(350.7)	
✓ CEDAR RUN, 1935	G-3126 333	"	39 38	39.431				1216.1	(634.3)	
			74 14	44.379					1058.2	(372.5)
✓ CLAM, 1935	G-3126 333	"	39 40	09.576				295.3	(1555.1)	
			74 13	52.658					1255.1	(175.0)
Sub. Pt. CLAM, 1935		"	39 40					289.4	(1561.0)	
			74 13					1191.7	(238.5)	

1 FT. = 3048006 METERS
COMPUTED BY: P. J. Tarozza

DATE April 17, 1951

CHECKED BY: M.F. Kirk

DATE April 20, 1951

M-2988-12

COMPILATION REPORT

T-9498

The photogrammetric plot report covering the area of this survey will be a part of the descriptive report for T-9499.

31. DELINEATION

The major portion of this survey was compiled by graphic methods; the small area northwest of the dismantled railroad in the northwesternmost * part of the survey was compiled in conjunction with Survey T-9497 by Kelsh ^{Stereo-}plotter in the Washington Office. The contours and elevations were transferred from the Kelsh work sheet to the manuscript during the process of graphic compilation. * See p. 2, Desc. Report T-9497; also, p. 3 of this report.

Some difficulty was encountered in the delineation of the area of Mud City and Cedar Creek due to inadequate side lap of the photographs and scanty field inspection. This area should be given special attention during field edit.

32. CONTROL

The identification, density and placement of horizontal control were adequate.

33. SUPPLEMENTAL DATA - Div Photogrammetry General Files

(1) County Engineer's Road map of Ocean County, N.J., April 1950. -

(Layout of Township and Borough boundary lines)

(2) A.M.S. Long Beach, N.J. quadrangle, dated 1948 (Geographic Names.)

(3) N.J. Fish and Game Commission Map No. 8A (Boundary Line of Manahawkin Public Hunting and Fishing Grounds.)

34. CONTOURS AND DRAINAGE

Reconciliation along the junction between the contours transferred from the Kelsh plotter work sheet with contours compiled from planetable survey in the field was accomplished at the Baltimore Office.

Streams, draws and ditches presented no compilation difficulties, but the limits of swamp were not field inspected and require field edit clarification. See Field Edit Report, item # 52.

35. SHORELINE AND ALONGSHORE DETAILS

The shoreline inspection was adequate for satisfactory completion of the manuscript.

The low water line bordering the Atlantic Ocean was delineated from field data; all shallow and channel lines on the manuscript were delineated from office interpretation of the photographs.

36. OFFSHORE DETAILS

No comment.

37. LANDMARKS AND AIDS

Forms 567 for 4 landmarks and ¹⁵~~14~~ lights have been prepared to accompany this report. The lights were plotted on the manuscript from theodolite angles recorded on Forms 24-A, List of Directions.

Forms 567 attached.

*Div. of Photogrammetry
general files.*

38. CONTROL FOR FUTURE SURVEYS

Forms 524 for 9 recoverable topographic stations originating in the field and 2 azimuth marks originating at the compilation office were transmitted to the Washington Office between the 17th and 25th of October 1951. These stations are listed in item 49. *All Forms 524 on file in*

39. JUNCTIONS

*Div Photogrammetry
general files.*

T-9499 to the east
T-9497 to the west
T-9502 to the south

No contemporary survey to the north

All junctions are in agreement.

40. HORIZONTAL AND VERTICAL ACCURACY

No comment. See item #53, Field Edit Report.

41. BOUNDARIES * See item 52 and 67.

The boundary line between Union and Stafford Townships has been shown on the manuscript by extending the line between boundary monuments No. 5 and 6 to the Intracoastal Waterway. This is in apparent agreement with the boundary line as shown on the County Engineer's Road Map of Ocean County, the General Highway map of Ocean Co., and the AMS Long Beach, N.J. quadrangle. All of these sources, however, do not agree with the Deed Description of Union Twp. as recorded at the Toms River County Courthouse (copy in "Special Report on Boundaries"). The boundary line could not be plotted from the Deed Description.

41. BOUNDARIES (continued)

The boundary line of the Manahawkin Public Hunting and Fishing Grounds has been delineated as field inspected. A portion of this boundary line is in disagreement with the line as presented on Plat No. 8A of the N.J. Fish and Game Commission. This discrepancy is to be resolved by field edit. See Field Edit Report, item 52.

42 thru 45.

Inapplicable.

46. COMPARISON WITH EXISTING MAPS

(1) AMS Long Beach, N.J. Quadrangle, scale 1:62,500, edition of 1941, revised 1948.

(2) Survey No. T-5443, scale 1:10,000, June 1936

(3) Survey No. T-5444, scale 1:10,000, July 1935

(4) Survey No. T-5099, scale 1:10,000, June 1936

47. COMPARISON WITH NAUTICAL CHARTS

Chart No. 825, scale 1:40,000, July 1946 (3-20-50)

Items to be applied to nautical charts immediately:

None

Items to be carried forward

None

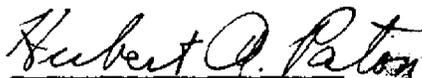
Respectfully submitted



Raymond Glaser

Cartographer (Photogrammetry)

Approved and forwarded



Hubert A. Paton

Comdr., C&GS

Officer in Charge

49. NOTES FOR THE HYDROGRAPHER

The following recoverable topographic stations appear on the manuscript:

- MON 5, 1950
- * ~~GABLE (BAT - S Cab 1936)~~ 1950 - ~~T-6500~~
- GABLE, 1950
- CHIMNEY, 1950
- CHIMNEY 1950
- * ~~CHIMNEY (AGO - Chy 1936)~~ 1950 *T-6399a*
- * ~~CHIMNEY (Chy. Yel. Frame No. 1936)~~ 1950 - *T-6399a*
- LOOKOUT TOWER, 1950
- * ~~CUPOLA (Ship Bottom C.G. Cap 1935)~~ 1950 - *T-6399a*
- SURF AZ MK (1932) 1950
- BEACH ARLINGTON AZ MK (1932) 1950

** 1950 geographic position determined by photogrammetric methods differs from previously determined position; therefore, the date, 1950, is retained on manuscript. The 1950 positions supersede the 1935-36 positions.*

K.D.M.

50 -

PHOTOGRAMMETRIC OFFICE REVIEW

T-9498

- 1. Projection and grids
- 2. Title
- 3. Manuscript numbers
- 4. Manuscript size

CONTROL STATIONS

- 5. Horizontal control stations of third-order or higher accuracy
- 6. Recoverable horizontal stations of less than third-order accuracy (topographic stations)
- 7. Photo hydro stations
- 8. Bench marks
- 9. Plotting of sextant fixes
- 10. Photogrammetric plot report
- 11. Detail points

ALONGSHORE AREAS

(Nautical Chart Data)

- 12. Shoreline
- 13. Low-water line
- 14. ~~Rocks~~ shoals, etc.
- 15. Bridges
- 16. Aids to navigation
- 17. Landmarks
- 18. Other alongshore physical features
- 19. Other along-shore cultural features

PHYSICAL FEATURES

- 20. Water features
- 21. Natural ground cover
- 22. Planetable contours
- 23. Stereoscopic instrument contours
- 24. Contours in general
- 25. Spot elevations
- 26. Other physical features

CULTURAL FEATURES

- 27. Roads
- 28. Buildings
- 29. Railroads
- 30. Other cultural features

BOUNDARIES

- 31. Boundary lines
- 32. Public land lines

MISCELLANEOUS

- 33. Geographic names
- 34. Junctions
- 35. Legibility of the manuscript
- 36. Discrepancy overlay
- 37. Descriptive Report
- 38. Field inspection photographs
- 39. Forms

40. _____
 Reviewer *R. Blaine*
 Supervisor, Review Section or Unit

41. Remarks (see attached sheet)

FIELD COMPLETION ADDITIONS AND CORRECTIONS TO THE MANUSCRIPT

42. Additions and corrections furnished by the field completion survey have been applied to the manuscript. The manuscript is now complete except as noted under item 43.

Jack Blumick

 Compiler

Joseph W. Vonsack

 Supervisor

43. Remarks:
See attached

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

TO BE CHARTED
OR BE RELEASED

STRIKE OUT ONE

Baltimore, Maryland

8 June

1951

I recommend that the following objects which have ~~(4496, 4497)~~ been inspected from seaward to determine their value as landmarks be charted on ~~(charts 800)~~ the charts indicated.

The positions given have been checked after listing by

R. Glaser

R. Glaser

Hubert A. Paton
Chief of Party

STATE	CHARTING NAME	DESCRIPTION	SIGNAL NAME	POSITION				METHOD OF LOCATION AND SURVEY NO.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
				LATITUDE		LONGITUDE							
				D. M. METERS	D. P. METERS	D. M. METERS	D. P. METERS						
New Jersey	Lt. 35	NE of Gulf Point		39 44	1143	74 08	1249	N.A. 1927	1950	X	X	1216 825	
	Lt. 36	Sloop Sedge		39 43	1449	74 09	58	"	"	X	X	"	
	Lt. 37	North of Sandy Island		39 43	461	74 08	695	"	"	X	X	"	
	Lt. 38	Sandy Island		39 42	603	74 08	1132	"	"	X	X	"	
	Lt. 39	East of Harvey Sedge		39 41	1068	74 09	252	"	"	X	X	"	
	Lt. 40	South of Harvey Sedge		39 41	652	74 09	1079	"	"	X	X	"	
	Ent. Lt.	At entrance to Harvey Cedars Harbor (maintained by the Boro)		39 42	40.368	74 08	06.570	"	"	X	X	"	
	Lt. 41	Carvel Island		39 41	1245	74 08	157	"	"	X	X	"	
	Lt. 43	Pettit Island		39 39	220	74 09	1178	"	"	X	X	"	
	Lt. 44	Manahawkin Bay		39 39	1803	74 10	1266	"	"	X	X	"	
	Lt. 45	S.W. Surf City		39 39	1493	74 10	1726	"	"	X	X	"	
	Lt. 46	Near Highway Bridge		39 39	888	74 10	1116	"	"	X	X	"	
	Lt. 47	West of Shipbottom		39 38	301	74 11	420	"	"	X	X	"	
	Lt. 48	South of Cedar Bonnet I.		39 38	1577	74 11	374	"	"	X	X	"	
				39 38	1159	74 11	648	"	"	X	X	"	

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 other means.

48. GEOGRAPHIC NAMES LIST

A.T. & T.CO. Transatlantic Receiver

Arnold Pond

Atlantic Ocean

Barnegat

Barnegat Bay

Bay Ave

Beach Ave

Beach View

Bear Island

Big Cove

Big Flat Creek

Bonnet Island

Carvel Island

Cedar Bonnet

Cedar Creek

Cedar Run-Dock Rd

Collins Lower Tide Pond

Collins Upper Tide Pond

Conklin Island

Cross Channel

Dipper Point

Double Creek

Double Creek Wide Place

Drum Point

Eagleswood Township

East Bay Ave

Eds Knoll Pond

Egg Island

Flat Island

Frazier Tract

Fresh Creek

Gulf Island

Gulf Point

Gunning River

Harry Pond

Harvey Cedars

Harvey Cedars Boro

Harvey Sedges

Haywood Oyster Pond

48. Geographic Names List

Intracoastal Waterway

Limestone Channel

Little Beach

Log Creek

Log Creek Pond

Long Beach

Long Beach Blvd

Long Beach Park

Long Beach Township

Lovelady Island

Lower Dock

Main Point

Manahawkin Bay

Manahawkin Creek

Manahawkin Public Hunting & Fishing Grounds

Marshelder Island

Marshelder Island Club

Marshelder Pond

Meyers Pond

Mill Creek

Mill Creek Road

Mill Creek Thorofare

Mud City

Mud Cove

North Pond

Ocean County

Oyster Point

Oyster Pond

Pettit Island

Popular Point

Sandy Island

Settin Pond

Shell Pond

Ship^sbottom

Ship^sbottom Boro

Sloop Sedge

Stafford Township

Standing Pond

Surf City

Surf City Boro

2 words

48. Geographic Names List

Taylor Road
Thorofare Island
Turtle Cove
Turtle Creek

Union Township
Upper Dock

Vol Sedge

Whalebone Point

GEOGRAPHIC NAMES
underlined in red
are approved.

10/23/52

HUNG

FIELD EDIT REPORT
Quadrangle T-9498
Project Ph-59(50)

The field edit of this quadrangle was accomplished during the months of December, 1951, and January, 1952.

51. METHODS

The inspection of this quadrangle was done by using a truck, skiff, and on foot. Corrections and additions were applied by standard surveying methods.

Two 1:20,000 scale sheets are submitted with the field edit information, upon which additions, corrections, and deletions have been either indicated or referenced to field photographs. A legend is shown on the field edit sheets which includes the colored inks and symbols used.

A 1:10,000 scale section contains the vertical accuracy test.

52. ADEQUACY OF COMPILATION

The map compilation is adequate, with the exception of a few corrections and additions.

The majority of the buildings which have been added can be attributed to a building boom that is taking place on the beach section. The remainder of the additions are due to some new construction and to buildings omitted during compilation.

Numerous buildings, which were classified by the field inspector as number two buildings, have been deleted. These buildings consisted of small garages, chicken houses and out-buildings that are not of sufficient substantial construction or of a conspicuous nature to warrant delineation.

All vertical bridge clearances were re-measured during this survey and the corrected measurements have been indicated where necessary. In most cases, the vertical clearances were in error by approximately two feet and in one instance the horizontal clearance was found to be in error about thirty-six feet.

A number of changes have been made in the swamp delineation. The field editor has outlined the swamp area in purple where applicable throughout the entire quadrangle.

It was found, when making measurements with a steel tape to identifiable points on the photographs, that the shoreline on the ocean side of Long Beach at Harvey Cedars and Long Beach Park has been slightly changed. The mean high water line is now further inshore. This was caused by the storm of 1950. Other changes in the mean high water line were noted and corrected in Quadrangle T-9499 which was submitted earlier. No appreciable changes were found in the southern portion of the quadrangle.

Mr. Charles P. Cramer of Cedar Run, New Jersey, the local township engineer and surveyor, has verified that the boundary line between Union and Stafford Township is correct as shown, and that it does not extend along Taylor Road as questioned in red on the discrepancy print.

According to the local game warden, Mr. Shropshire of New Gretna, New Jersey, who was in possession of a map of the Manahawkin Public Hunting and Fishing Grounds, and who is thoroughly acquainted with this area, the boundary of the Manahawkin Public Hunting and Fishing Grounds is in error as delineated. He states that it is correctly shown in red on the discrepancy print. Further verification was found in comparing his map with our sheet.

53. MAP ACCURACY

The horizontal positions of the map detail appear to be good.

One vertical accuracy test was run in the northwestern part of the quadrangle on a 1:10,000 scale double-weight matte print. Of the 73 points tested, 74% were in error 1 foot or less; 25% in error 1 foot to 1/2 contour interval; and 1% in error 1/2 to 1 contour interval.

Several small errors of contour expression were corrected.

54. RECOMMENDATIONS

None.

55. EXAMINATION OF PROOF COPY

Mr. T. T. Taylor, civil engineer and surveyor, who has been a resident of the area for forty years, states that he would be willing to examine a proof copy of this quadrangle for possible errors. Mr. Taylor's address is: Brant Beach, New Jersey.

4 February 1952
Submitted by:

Joseph K. Wilson
Joseph K. Wilson,
Cartographer

11 February 1952
Approved by:

Paul Taylor
Paul Taylor
Lt. Comdr., USC&GS
Chief of Party

VERTICAL ACCURACY TEST REPORT

Quadrangle T-9498

Project Ph-59(50)

The following tabulation is the result of the vertical accuracy test for this quadrangle. The traverse originated and terminated on level points established at road intersections.

A total of 1.5 lineal miles were traversed by planetable to test 73 points on contours. The horizontal closure was negligible. The vertical closure was 0.3 foot and no adjustment was made.

Of the 73 points tested:

74% were in error 1 foot or less;
25% in error 1 foot to 1/2 contour interval; and
1% in error 1/2 contour interval to 1 contour interval.

4 February 1952

Submitted by:

Joseph K. Wilson
Joseph K. Wilson,
Cartographer

11 February 1952

Approved by:

Paul Taylor
Lt. Comdr., USC&GS
Chief of Party

Review Report T-9498
Topographic Map
28 October 1952

62. Comparison with Registered Topographic Surveys.-

T-119	1:20,000	1840, 41
T-121	"	1839
T-1315a	"	1872
T-1315b	"	1873
T-2456	"	1899-1915
T-2457	"	1899-1915
T-5098	1:10,000	1932
T-5099	"	1932
T-5443	"	1932
T-5444	"	1932
T-5446	"	1932
T-6398	"	1935
T-6399	"	1935
T-6499	"	1935, 36
T-6500	"	1936

T-9498 supersedes all the above surveys in common areas.

63. Comparison with Maps of Other Agencies.-

Long Beach, N. J., USE 15' quadrangle 1:62,500, 1941, copied in 1946.

The boundary between Union and Stafford Townships is not in agreement with the boundary as shown on T-9498.

The boundary of the Manakawkin Public Hunting and Fishing Grounds is shown on T-9498 but not on the USE quadrangle.

64. Comparison with Contemporary Hydrographic Surveys.- None

65. Comparison with Nautical Charts.-

825, 1:40,000 Intracoastal Waterway, ed. 1946, corr. to 5/14/51.

1216, 1:80,000, ed. 1940, Corr. to 4/23/51

There are no significant differences between the charts and the map.

66. Adequacy of Results and Future Surveys.-This map complies with all instructions and is adequate as a base for hydrographic surveys and the construction of nautical charts. Results of the vertical accuracy test which are summarized in the attached field edit report are satisfactory. This map complies with the National Standards of Accuracy.

67. Boundaries.-With reference to item 41, Boundaries, the location of the boundary line between Union and Stafford Townships,

as now shown, has been determined to be correct by the field editor. In addition, the boundary line extended between Monuments 5 and 6 is not in apparent agreement with the map sources as stated. On these maps the boundary follows Taylor Road whereas on the map manuscript, T-9498 N/2, the boundary line runs approximately a quarter mile, more or less, south of and roughly parallel to Taylor Road.

Reviewed by:

K. N. Maki
K. N. Maki

APPROVED

L. C. Lande
Chief, Review Section
Div. of Photogrammetry

J. W. Edmonson
Chief, Nautical Chart Branch
Div. of Charts

H. W. Swanson
Chief, Div. of Photogrammetry *msk*
21 Sept. 1915

Carl O. Henton *B*
Chief, Div. of Coastal Surveys

History of Hydrographic Information
Quadrangle T-9498
New Jersey

Hydrography was applied to the manuscript of this quadrangle in accordance with Division of Photogrammetry general specifications dated 18 May 1949.

Soundings and depth curves at mean low water datum originate with the following:

USC&GS Hydrographic Surveys

H 6215	1:10,000	1936
H 6142	"	"
H 6225	1:20,000	1937
H 6271	1:40,000	"

Hydrography was compiled by C. Theurer and verified by O. Svendsen.

C. Theurer
1 June 1953