

9829

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-72 (51) Office No. T-9829 N&S.

LOCALITY

State New Jersey

General locality Ocean County

Locality Forked River

1951

CHIEF OF PARTY

H.F. Garber, Chief of Field Party

H.A. Paton, Baltimore Photo. Office

LIBRARY & ARCHIVES

DATE December 17, 1959

9829

DATA RECORD

T - 9829 N & S (two manuscripts)Project No. (II): Ph-72(51)

Quadrangle Name (IV):

Field Office (II): Edenton, North CarolinaChief of Party: Harry F. GarberPhotogrammetric Office (III): Stereoscopic Mapping Section
Washington, D.C.

Office in Charge:

Louis J. ReedInstructions dated (II) (III): 18 April 1951Copy filed in Division of
Photogrammetry (IV)Method of Compilation (III): Single lens: Control extended by Stereophanigraph
Detail compiled by Kelsh PlottersManuscript Scale (III): 1:10,000

Stereoscopic Plotting Instrument Scale (III):

Scale Factor (III): manuscript = 10,000 :: Photos = 20,000; C=1/1,000Date received in Washington Office (IV): 11 1952Date reported to Nautical Chart Branch (IV): 19 June 1952

Applied to Chart No.

Date:

Date registered (IV): 2/26/58

Publication Scale (IV):

Publication date (IV):

Geographic Datum (III): NA 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):

Lat.:

Long.:

Adjusted

~~XXXXXXXXXX~~

Plane Coordinates (IV):

State:

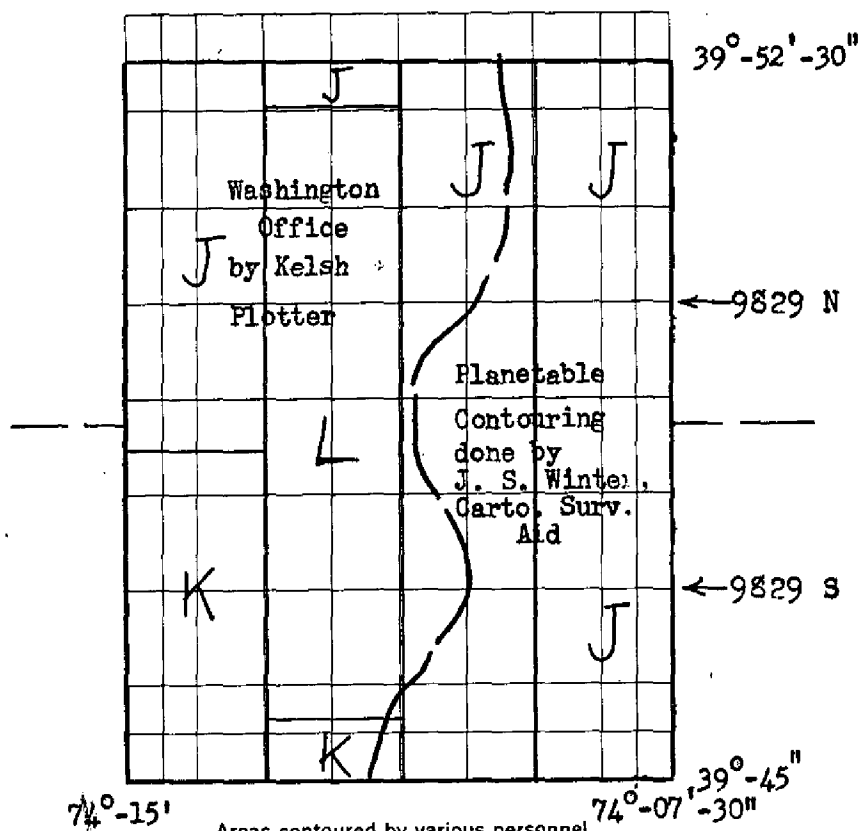
Zone:

Y=

X=

New Jersey State Grid with interval of 5,000ft.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.



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

Contours originally established as indicated in RED

Control extended over entire area by The Stereoplanigraph

Cultural features compiled by instrument and operator as indicated in BLUE. Contours were compiled at the same time, either originally or copied from field photos.

- | | |
|---|--|
| J | = Detailed by Ivan R. Jarrett on the Kelsh Plotter, model "B" |
| L | = Detailed by Frank J. Lesslie on the Kelsh Plotter, model "A" |
| K | = Detailed by Morton Keller on the Stereoplanigraph. |

DATA RECORD

Field Inspection by (II): John S. Winter,
Cartographic Survey Aid

Date: July, 1951

Planetable contouring by (II): John S. Winter,
Cartographic Survey Aid

Date: June and
July, 1951

Completion Surveys by (II):

Date:

Mean High Water Location (III) (State date and method of location):

Shoreline on this compilation is dated 1951 since the field inspector located it on photographs that summer, and this field location was used as a guide during instrument delineation and later during manuscript compilation.

Projection and Grids ruled by (IV): Theodore L. Janson on the
Reading Ruling Machine

Date: 15 Aug 51

Projection and Grids checked by (IV): Howard D. Wolfe

Date: 16 Aug 51

Control plotted by (III): Stanley W. Trow

Date: 18 Sep 51

Control checked by (III): Morton Keller

Date: 19 Sep 51

~~XXXXXXXXXX~~ Stereoscopic Stanley W. Trow & Morton Keller
Control extension by (III):

Date: 9 Oct 51

Planimetry
Stereoscopic Instrument compilation (III): See Data page 2
Contours

Date:
Date: 10 Feb 52

Manuscript delineated by (III): Robert L. Sugden (N half complete)
Henri Lucas (Started S half)
Robert L. Sugden (Completed S half)

Date: 10 April 52

Photogrammetric Office Review by (III): Louis J. Reed

Date: 10 June 52

Elevations on Manuscript
checked by (II) (III): Louis J. Reed

Date: 10 June 52

Camera (kind or source) (III): USC&GS "O" camera, 6 inch, wide-angle

Number	Date	Time	Scale	Stage of Tide
1744 thru 1750		0950		about 1ft below MHW on outside of bank and about MHW on the inside
1808 thru 1810	23 Mar 51	1040	20,000	
1849 thru 1859		1110		
1865 thru 1874		1115		

Reference Station: Sandy Hook
Subordinate Station:
Subordinate Station:

Ratio of Ranges	Mean Range	Spring Range
		4.2

Washington Office Review by (IV):

Date:

Final Drafting by (IV):

Date:

Drafting verified for reproduction by (IV):

Date:

Proof Edit by (IV):

Date:

Land Area (Sq. Statute Miles) (III): 39

Shoreline (More than 200 meters to opposite shore) (III): about 25

Shoreline (Less than 200 meters to opposite shore) (III): nearly 25

Control Leveling - Miles (II): 32.5

Number of Triangulation Stations searched for (II): 42 Recovered: 39 Identified: 15

Number of BMs searched for (II): 48 Recovered: 35 Identified: 35

Number of Recoverable Photo Stations established (III): No new ones; 17 1934-5 stas. recv'd

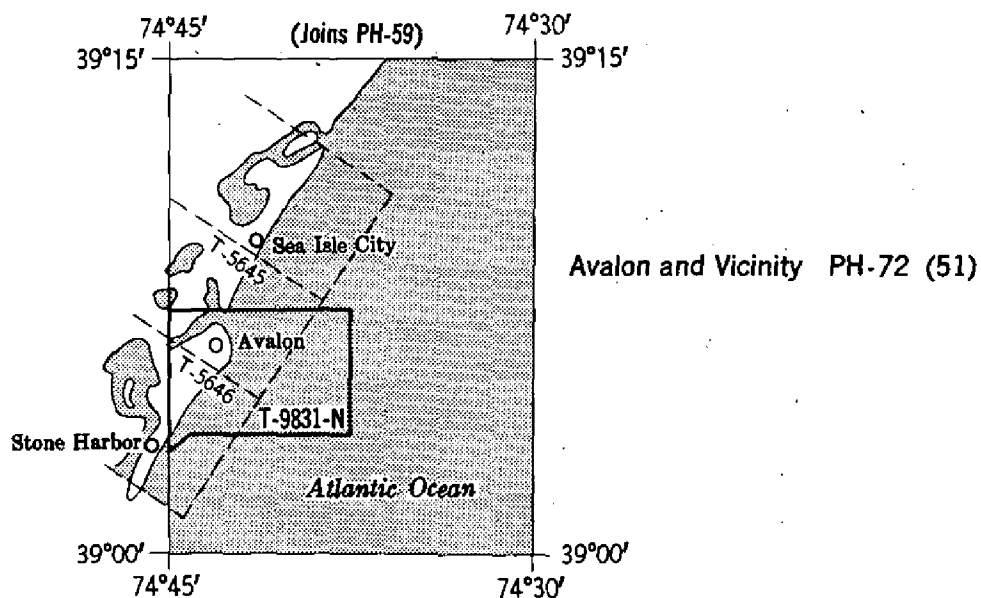
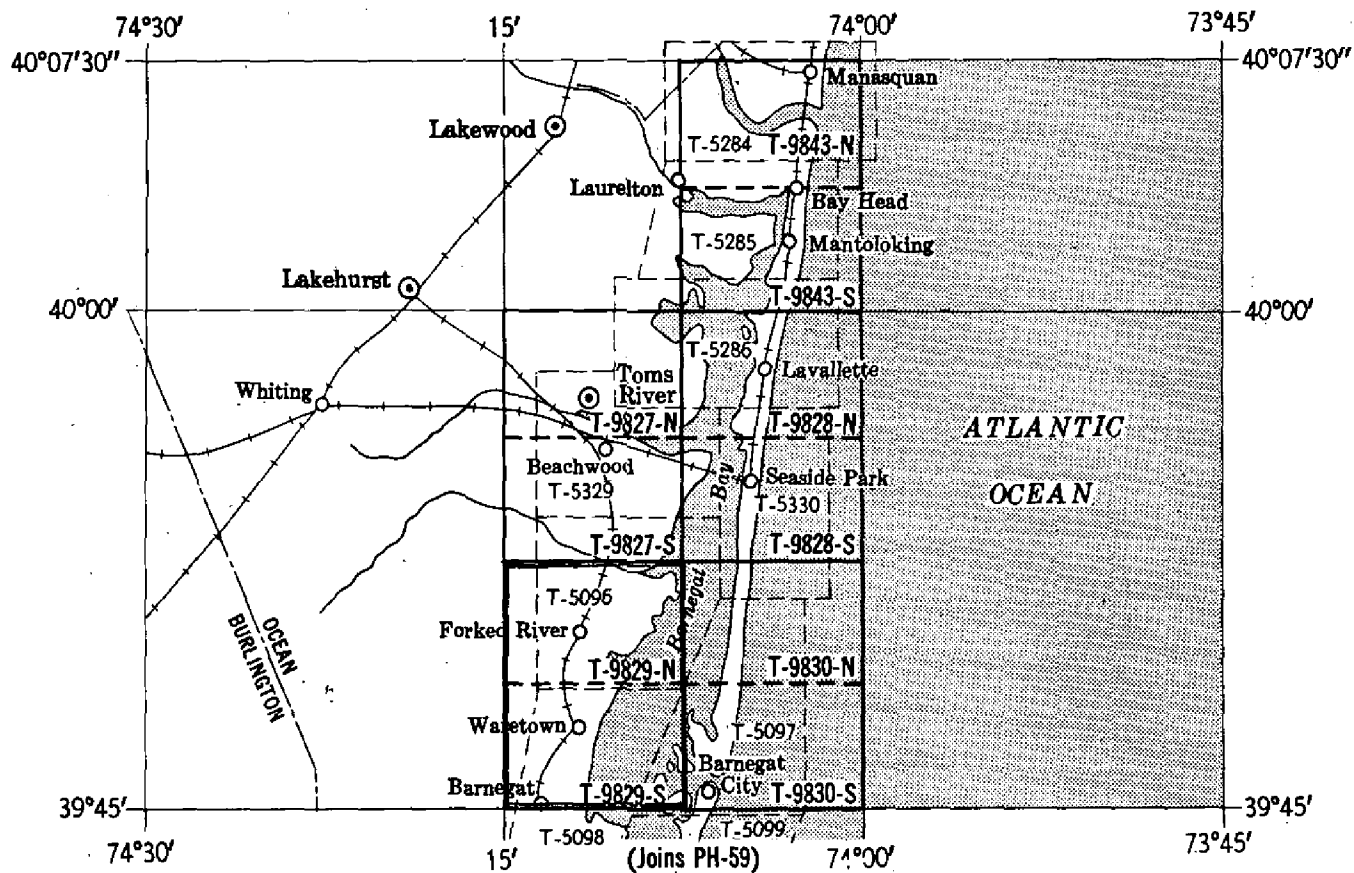
Number of Temporary Photo Hydro Stations established (III): None

Remarks:

TOPOGRAPHIC MAPPING PROJECT PH-72 (51)

NEW JERSEY, Barnegat Bay - Toms River and Vicinity

Compilation scale 1:10,000



1. Preface:

FIELD INSPECTION REPORT
QUADRANGLE T-9829
PROJECT PH-72(51)

Harry F. Garber, Chief of Party

The field work for this quadrangle was done in accordance with Instructions, dated 18 April 1951, Project Ph-72(51), under the direction of Joseph K. Wilson, Supervisor. Field work, in addition to those phases listed on page 3, was done by the following personnel:

<u>Name and Title</u>	<u>Phase</u>	<u>Date</u>
Leo F. Beugnet Cartographic Survey Aid	Horizontal Control Recovery and Shoreline	June, 1951
John R. Smith Cartographic Survey Aid	Fly Levels	June, 1951

2. AREAL FIELD INSPECTION

This quadrangle comprises a heavily-wooded section which is very sparsely settled, except in the immediate vicinity adjacent to U. S. Highway No. 9. There are four small unincorporated villages along U. S. Highway No. 9, namely: Barnegat, Forked River, Lanoka Harbor, and Waretown, the largest of which is Barnegat. These communities cater to the summer trade. There is little cultivation or commercial enterprise within the area.

The Central Railroad of New Jersey is the only railroad within the quadrangle. The railroad stations along this railroad, with the exception of the freight station at Barnegat, are no longer used. They are intact and are owned by the railroad, with the exception of the station at Waretown, which has been sold to private interests. The Tuckerton Railroad has been abandoned and the tracks have been removed.

Throughout the wooded sections there are numerous secondary roads which are seldom used except by hunters, loggers, and as access roads to the cranberry bogs.

The photography for the area was good, and the tone detail clear.

The field inspection is believed to be complete.

3. HORIZONTAL CONTROL

(a) No additional control was established.

(b) All stations are on the N.A. 1927 datum.

(c) Control established by the U.S. Engineers and the New Jersey Geodetic Control Survey was used along with that established by the U.S.C.&G.S. Stations not established by the U.S.C.&G.S. are:

<u>Station</u>	<u>Agency</u>	<u>Order</u>	<u>Datum</u>
N Mon. 2240 ✓	New Jersey Geodetic Control Survey	Third	N.A. 1927
N " 2241 ✓	"	"	"
N " 2242 — lost	"	"	"
N " 2243 ✓	"	"	"
N " 2244 ✓	"	"	"
S " 2245 ✓	"	"	"
S " 2247 ✓	"	"	"
S " 2248 ✓	"	"	"
S " 2249 ✓	"	"	"
S " 2250 ✓	"	"	"
off " 2289 ³ on 9827 1/2	"	"	"
N " 2290 ✓	"	"	"
N " 2291 ✓	"	"	"
off " 2636 West of 9829	"	"	"
N " 2637 ✓	"	"	"
S " 8602 ✓	"	"	"
S " 8603 ✓	"	"	"
off " 8653 — on 9827 1/2	"	"	"
off " 8654 — " "	"	"	"
N " 8655 ✓	"	"	"
N " 8656 ✓	"	"	"

<u>Station</u>	<u>Agency</u>	<u>Order</u>	<u>Datum</u>
N Mon. 8657 ✓	New Jersey Geodetic Control Survey	Third	N.A. 1927
N " 8658 ✓	"	"	"
N " 8660 ✓	"	"	"
N " 8661 ✓	"	"	"
N " 8662 ✓	"	"	"
N " 8663 ✓	"	"	"
N " 8664 ✓	"	"	"
N " 8665 ✓	"	"	"
N " 8666 ✓	"	"	"
N " 8667 ✓	"	"	"
N " 8668 ✓	"	"	"

(e) A search was made for all known control points. Stations reported as "lost" or "not recovered" are:

Mon. 2242 (N.J.G.C.S.), 1935
 Shell, 1935
 Ware, 1935

4. VERTICAL CONTROL

(a) A search was made for all known vertical control. Bench marks in the quadrangle which were used are:

<u>Name</u>	<u>Agency</u>	<u>Order</u>
HB RV 2246 - on 9827 1/2 = 3	New Jersey Geodetic Control Survey	Third
N " 2247 - 11	"	"
N " 2248 - 30	"	"
N " 2249 - 18	"	"
N " 2251 - 9	"	"
N " 2252 - 11 ft	"	"
S " 2253 - 15	"	"

<u>Name</u>	<u>Agency</u>	<u>Order</u>
S RV 2254 -13	New Jersey Geodetic Control Survey	Third
S " 2255 -21	"	"
S " 2256 -27	"	"
S " 2257 -36	"	"
U " 2290 -63	"	"
N Lacey - 81	"	"
N R.M. 2, Lacey -66	"	"
U RV 5238 -59	"	"
N " 5241 -18ft	"	"
N MK. 5242 } not shown - too crowded - both close		
N " 5243 } to NJGCS MON 2 2247 and 8656. SA		
S Mon. 2249 -34ft	"	"
S " 8669 No boards to plot it	"	"
S " 8670 "	"	"
S " 8671 "	"	"
S " 8673 "	"	"
S " 8674 "	"	"
S " 8675 "	"	"
S " 8679 "	"	"
U Q-6 -19	U. S. Coast and Geodetic Survey	First
U R-6 -14	"	"
U S-6 -19	"	"
S T-6 -8	"	"
S V-6 -15	"	"
S W-6 -32	"	"
S X-6 -43	"	"
S Y-6 -42	"	"
S TBM 2F -4ft		

(b) 32.5 Miles of supplemental levels were run with a Wye level to establish elevations at photographic points for use by the stereoscopic instruments and to control the planetable contouring. Elevations for the stereoscopic instrument control were established and identified at points with a level plane of at least 25 feet in diameter. The largest error of closure was 0.79 foot. Adjustments were prorated according to the number of setups.

(c) The first and last fly-level points are 29-1 and 29-72.

(d) After the field party had run the supplemental elevations for the stereoscopic contouring, additional control points were requested in that area. The field party ran these additional levels with a planetable and the elevations have been shown on the photographs in black. All lines started and closed on existing bench marks or on points of the supplemental level lines. The closure in no case was greater than one foot.

5. CONTOURS AND DRAINAGE

The contouring of this quadrangle was done by both stereoscopic instruments and by planetable methods. The line of division is U.S. Highway No. 9 (as indicated on page 2) (See report by the Washington Office.)

The contouring, by planetable methods, was done directly on single-lens photographs (1:10,000 scale), at a contour interval of ten (10) feet.

The natural drainage is by numerous small creeks leading into Barnegat Bay.

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

6. WOODLAND COVER

The cover was classified in accordance with Paragraph 5433 of the Topographic Manual, Part II, dated 1949.

The woodland area in the quadrangle is predominantly scrub oak, with gum and cedar growing in the swampy sections. Small areas of pine are found throughout the quadrangle and are usually found in the lower well-drained portions. Much of the area has been burnt over in past years, and, although little more than brush now, will become trees in a few years.

The light grey tones designate the scrub oak; dark black patches the cedar; and the dark grey tones along the eastern portion of the quadrangle are predominantly gum, which is interspersed with pine along the western edges.

7. SHORELINE AND ALONGSHORE FEATURES

(a) Little difficulty was encountered in the delineation of the high-water line. The shoreline is all apparent, except along man-made built-up areas, which have been duly inspected and classified.

(b) No attempt was made to locate the low-water line.

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

(d) Inapplicable.

(e) All docks, wharves and piers not clearly discernible on the photographs have been delineated thereon.

(f) There are no submarine cables within the quadrangle.

8. OFFSHORE FEATURES

Two wrecks were located by photogrammetric methods just north and east of Clam Island.

9. LANDMARKS AND AIDS

(a) One landmark is recommended on Form 567 for charting. Form 567, Form 24-A, and a chart section will be submitted at a later date for that portion of the project from Barnegat Inlet to Manasquan Inlet.

(b) No interior landmarks are recommended.

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

(d) There are nine fixed aids to navigation. The aids were located by theodolite directions from triangulation stations and from photogrammetric points.

All aids within this quadrangle are single pile structures.

10. BOUNDARIES, MONUMENTS AND LINES

A Special Report on Boundaries was submitted in August, 1951, by Martin C. Moody, Cartographic Survey Aid.

One boundary marker, on the Ocean-Union Township line, was recovered and identified on the photograph.

*Destroyed
Enclined from F.P., 1934*

11. OTHER CONTROL

ONE There were no new topographic stations established. Thirty-
~~nine~~ previously established topographic stations were searched for
and are reported on Form 524. *FOURTEEN REPORTED "LOST"*

12. OTHER INTERIOR FEATURES

All roads and buildings have been classified in accordance with
Paragraphs 5441 and 5446 of the Topographic Manual, Part 11,
dated 1949.

The only bridges, over navigable waters, are fixed bridges
along U. S. Highway No. 9. They will only accomodate small skiffs.

13. GEOGRAPHIC NAMES *on file 854
LH*

This is the subject of a special report which will be submitted
at a later date by Martin C. Moody, Cartographic Survey Aid.

14. SPECIAL REPORTS AND SUPPLEMENTAL DATA

A Coast Pilot Report for the project will be submitted at a
later date. There are no other reports or special data, except as
noted in Paragraph 10 and 13.

5 July 1951
Submitted by:
John S. Winter
John S. Winter
Cartographic Survey Aid

27 August 1951
Approved by:
Harry F. Garber
Harry F. Garber
Commander, USC&GS
Chief of Party

RADIAL PLOT REPORT

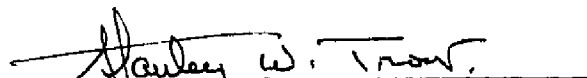
20-30:

No radial plot was constructed as a means of extending control into each stereoscopic model of this quadrangle for compilation purposes.

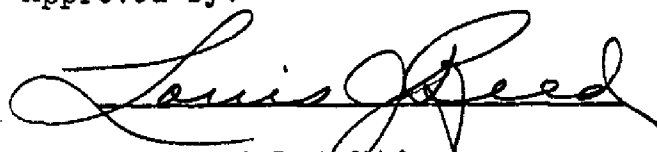
Instead, horizontal positions were located by means of a control extension using the Stereoplanigraph, model No. 61639. No particular difficulty was encountered during this operation. Basic control and photos used are shown on the next page, Photo and Control Sketch.

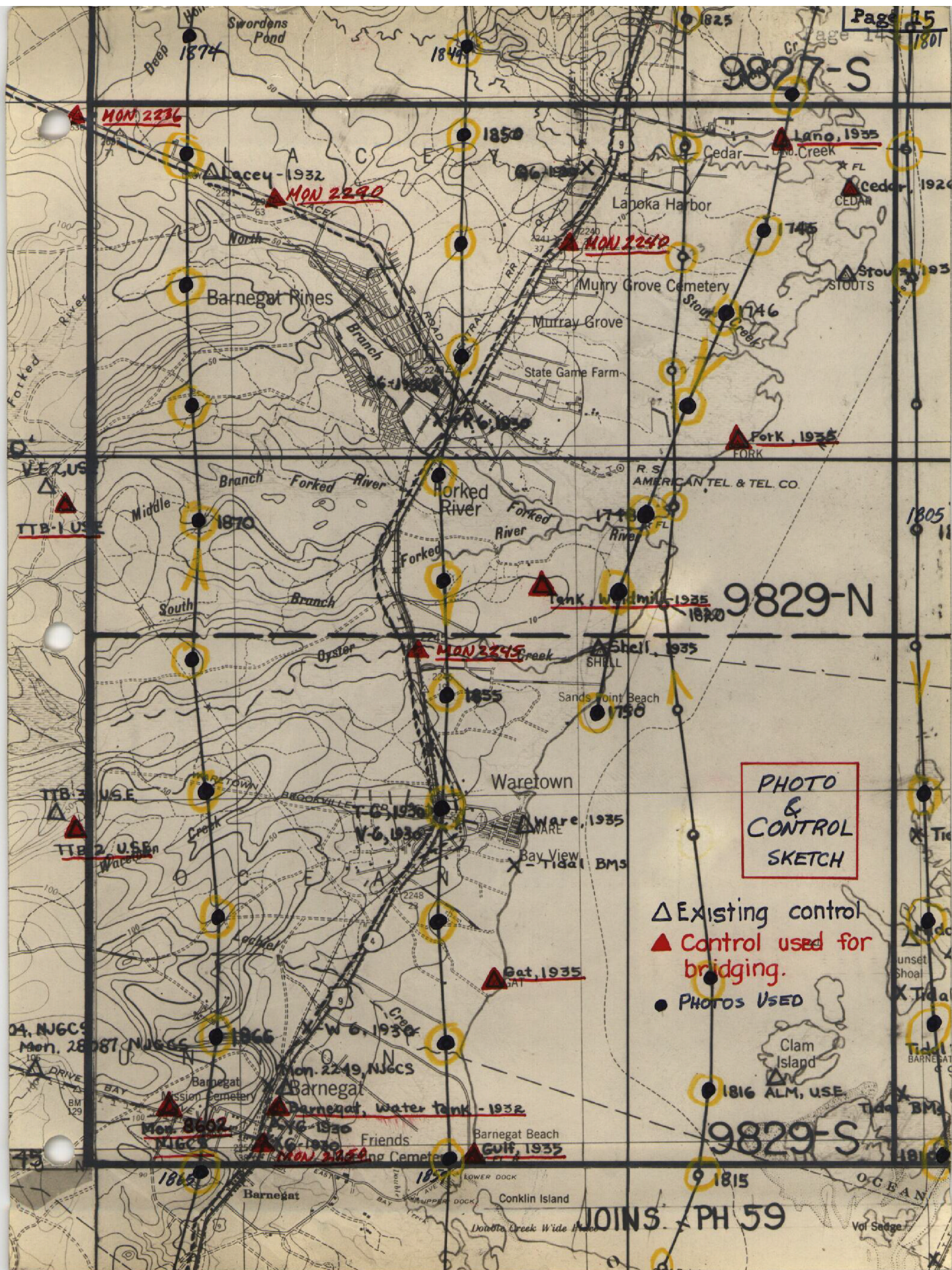
Vertical control was not extended; field operations established sufficient elevations to control each model for contouring purposes.

Submitted by:


Stanley W. Trow,
Cartographer/Photogrammetric

Approved by:


Louis J. Reed, Chief
Stereoscopic Mapping Section
Photogrammetric Engineer



MAP T. 9829-N PROJECT NO. Ph-72(51) SCALE OF MAP 10,000 SCALE FACTOR

STATION	NJ GP SOURCE OF IDENTIFICATION (INDEX)	DATUM	LATITUDE OR Y-COORDINATE LONGITUDE OR X-COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD (BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM PROJECTION LINE IN METERS FORWARD (BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)
LANO, 1935 dm	332	NA 1927	39 52 16.181 74 08 33.567			499.1 1351.4 797.8 628.1	
CEDAR, 1926 dm	426	"	39 51 55.557 74 07 56.406			1713.5 137.0 1304.6 85.4	
FORK, 1935 dm	332	"	39 50 06.943 74 08 59.505			214.1 1636.4 1414.9 11.7	
TANK, WINDMILL, 1935 d	339	"	39 49 18.970 74 10 54.861			585.1 1265.4 1304.7 122.3	
MON 2290 NJGCS		"	375.729.27 2,124,862.96				
MON 2240 NJGCS		"	373,948.70 2,137,684.81				
* MON 2636 NJGCS		"	379,186.00 2,116,258.41				
* TT B 1 (USE)		"	39 49 45.527 74 15 19.871			1404.1 446.4 472.5 954.3	
*= Station located just off			the west limits of	the quad			
NOTE;	Above control stations used to control the Stereoplanigraph bridging of horizontal control. For other existing stations in the quad, see next two pages, this report.						

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MAP T. 9829-N PROJECT NO. Ph-72(51) SCALE OF MAP 10,000 SCALE FACTOR

STATION	NJ GP SOURCE OF DATA (INDEX)	DATUM	LATITUDE OR Y-COORDINATE LONGITUDE OR X-COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD (BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)
STOUTS, 1935 dm	339	NA 1927	39 51 18.173 74 07 59.495			560.5 1290.0 1414.3 12.0	
LACEY, 1932 dm	16	"	39 52 02.095 74 13 55.737			64.6 1785.9 1324.7 101.3	
MON 2240 ¹ NJGCS		"	XXYYZZ 373.062.50 843344884488XX = 2,136,695.91				
MON 2242 NJGCS		"	366,966.27 2,133,376.74				
MON 2243 NJGCS		"	368,512.16 2,132,553.11				
MON 2244 NJGCS		"	365,684.48 2,132,693.78				
MON 2291 NJGCS		"	376,381.44 2,123,343.53				
MON 2637 NJGCS		"	378,532.17 2,118,005.16				
MON 8655 NJGCS		"	379,026.62 2,140,071.88				
MON 8656 NJGCS		"	377,192.13 2,139,683.89				
MON 8657 NJGCS		"	376,320.30 2,139,212.58				
MON 8658 NJGCS		"	375,155.24 2,138,431.73				

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MAP T. 9829-N PROJECT NO. Ph-72(51) SCALE OF MAP 10,000 SCALE FACTOR

MAP T. 9829-N PROJECT NO. Ph-72(51) SCALE OF MAP 10,000 SCALE FACTOR

MAP T. 9829-N PROJECT NO. Ph-72(51) SCALE OF MAP 10,000 SCALE FACTOR

[illegible]

1 FT. = .3048006 METER

COMPUTED BY:...

DATE:

CHECKED BY:

DATE _____

M-2388-12

MAP T. 9829-S PROJECT NO. Ph-72(51) SCALE OF MAP 10,000 SCALE FACTOR

STATION	NJ GP SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR U-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)
GAT, RM No. 1 1935 dm	See P. 10	NA 1927	39 46 18.449 74 11 13.651			569.0 1281.5 324.9 1103.1	
GULF, 1935 dm	333	"	39 45 03.320 74 11 26.967			102.4 1748.1 642.0 786.4	
BARNEGAT 1932 TANK rd	29	"	39 45 20.405 74 13 19.191			629.3 1221.2 456.8 971.5	
MON 2245 NJGCS		"	356.367.37 2,131,103.37				
MON 2250 NJGCS		"	335,356.36 2,124,589.99				
MON 8602 NJGCS		"	336,563.64 2,120,195.13				
* TT B 2 (USE)		"	39 47 28.434 74 15 13.033			876.9 973.6 310.1 1117.5	
** BARNEGAT LIGHT 11 2, 1932 dm		"	39 45 45.212 74 06 31.474			1394.4 456.1 749.2 679.0	
** JOHN, 1951	Field Comps	"	344, 493.00 2,154,871.37				
* = Located just ** = Located just	off this quad to the west off this quad to the southeast.						
NOTE: The above control stations in this quad were used to control the Stereopair bridging of horizontal control in conjunction with bordering quads bridged at the same time. For other existing stations in this quad, see page 20, this report.							
							19

1 FT. = 3048006 METER

COMPUTED BY:

DATE

CHECKED BY:

DATE

M-2388-12

COMPILATION REPORT31. Delineation:

This quadrangle has been delineated on stereoscopic plotting instruments as outlined on page 2, data records. Field inspection has been used as a guide thruout delineation on the instruments and during compilation of the two manuscripts making up the quad of this report. No areas of incomplete photo coverage or unsatisfactory field inspection were discovered. The total land area of the quad has been mapped by this operation.

32. Control:

Horizontal control was adequate for the control of this survey without the establishment of new stations. A majority of existing control was recovered and identified. For details, see sub-headings 3 and 4 of the Field Inspection Report, beginning on page 8, this report.

Vertical control for contouring purposes was selected and marked on the field photos before being sent to the field, where elevations were established on these points by the field party during ~~survey~~ field inspection. In general, these elevations were found to be in good agreement during instrument use of them. For details, refer to sub-heading 4 of the field report beginning on page 9.

All permanent control in the quad has been shown on the manuscripts in proper name and symbol; horizontal stations have been plotted and checked by beam compass, and vertical stations have been compiled from field inspection photos as identified thereon in the field,

33. Supplemental Data:

- a. Official Names Sheet compiled by Mr Heck.
- b. Special Boundaries Report; A brochure dated July 1951.
- c. Instrument photos and 9x9 diapositives; See page 15.
- d. Field Inspection Photos; 51 O 1744-50, 1808-09, 1821-24, 1850-59, 1865-71, and 1873.

34. Contours and Drainage:

The photographic quality of the instrument photos was satisfactory, but the overlap was excessive, being about 75% as an average. Sidelap was acceptable. The excessive overlap became a definite disadvantage to the instrument operator when contouring, especially since this project was being worked at or a little beyond the maximum C-factor

for efficient operation of the Kelsh Plotters. A C-factor of 1000 was being used (Altitude/contour interval = ~~10000/10~~ = 1000). Two areas of questionable contours have been left for field completion or verification on the S/2 quad manuscript as marked by a large red note on the reverse side of the sheet; this was caused partially by the unsuitable C-factor and overlap conditions, and partially because of woodland cover in the two areas in question. In the future it is recommended that strict attention be given to flight instructions to assure desirable sidelap as well as overlap of photographs, and that instrument contouring projects be planned on a C-factor basis of 800.

35. Shoreline and Alongshore Details:

The shoreline, as indicated on the field inspection photos, has been used as a guide during instrument delineation of the shoreline, and used again during manuscript compilation. The inspection appeared to be adequate. No low-water line has been delineated, field or office. Shoal areas have been outlined in the SE corner of the quad as partially indicated by the field inspection and extended during instrument delineation. For other details, refer to side-heading 7 of the Field Inspection Report, page 12.

36. Offshore Details:

Two wrecks located by field inspection are shown on the manuscript (S/2) in correct symbol. See page 12.

37. Landmarks and Aids:

For details, refer to side-heading 9, page 12 of this report. The one landmark recommended for charting is the tall steel watertank in Barnegat and it has been shown on the manuscript (S/2) as a triangulation station with the proper name to indicate that it is also a landmark.

Of the ^{ten} ~~nine~~ fixed aids located by the field party, only eight fell within the limits of this quad; Lt 32 is just over the limits in T-9830. All aids were plotted on the manuscripts by using a precise protractor and the theodolite angles turned in the field from triangulation stations. The eight are shown by proper symbol and number according to the light list; they are:

N/2 = LT 2 (Forked River), LT 5 (Forked River), ~~and~~ LT 1 (Cedar Creek), and LT 4 (Forked River).

S/2 = LT 1, LT 34, LT 2, LT 2 (Waretown), and LT 1 (Oyster Creek)

38. Control for Future Surveys:

Seventeen recovered topo stations have been shown on the two manuscripts of this quad. Some were field identified and have been transferred to the manuscripts from the photos, a few were located by means of topo points established in the field, and others have been plotted using coordinates recorded on the original Form 524s when no other means of locating them was at hand. All the topo stations should be revisited during field edit for assurance that they are correctly located. No hydro stations were established.

39. Junctions:

T-9830 to the east of this quad, and T-9827 to the north, agree at the respective junctions since all three quads have been compiled in the same operation. T-9498 to the south was compiled last year as a part of Project Ph-59 and the common junction with this quad is not completely in agreement; the contours do not agree in an area just south of the village of Barnegat and it is requested that the trouble be made right during field edit. No contemporary ~~exists~~ ^{survey} to the west.

40. Horizontal and Vertical Accuracy:

The two manuscripts of this survey are considered to meet standards of map accuracy in both respects. The horizontal scale is 1:10,000 and the contour interval is 10ft.

46. Comparison with Existing Maps:

TOMS RIVER, NEW JERSEY, Ocean County, AMS V722, Sheet 6163 I, 1:50,000, original map of 1941, revised 1946 and 1948.

47. Comparison with Nautical Charts:

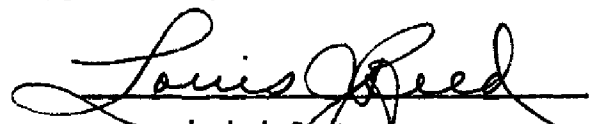
MANASQUAN INLET TO LITTLE EGG HARBOR, No 825, 1:40,000, July 1946(4th edition), last correction date of 31 Mar 52.

48. Geographic Name List: See numbered pages, following.49. Notes for the Hydrographer: Not applicable.50. Compilation Office Review: See T-2 form, following.

Submitted by:


Stanley W. Trow
Cartographer-Photogrammetric

Approved by:


Louis J. Reed, Chief
Stereoscopic Mapping Section
Photogrammetric Engineer

GEOGRAPHIC NAMES

Survey No.

T-9829 N/2

Name on Survey

	A	B	C	D	E	F	G	H	K	
BARNEGAT BAY										1
BARNEGAT PINES										2
BERKELEY TOWNSHIP										3
CEDAR BEACH										4
CEDAR CREEK										5
CEDAR CREEK POINT										6
CENTRAL RAILROAD OF NEW JERSEY										7
DEERHEAD LAKE										8
FORKED RIVER			both stream and town.							9
FORKED RIVER AIRPORT										10
GOODLUCK CEMETERY			(2 words, as on manuscript)							11
LACEY ROAD										12
LACEY TOWNSHIP										13
LAKE BARNEGAT										14
LANOKA HARBOR										15
LOWER LAKE										16
MIDDLE BRANCH FORKED RIVER										17
NORTH BRANCH FORKED RIVER										18
SOUTH BRANCH FORKED RIVER										19
SOUTH BRANCH STOUTS CREEK										20
NEW JERSEY STATE GAME FARM										21
STATE OF NEW JERSEY PUBLIC YACHT BASIN										22
STOUTS CREEK										23
U S NAVY RANGE STATION										24
										25
										26
										27

Names approved

2-27-53

H. Heck

GEOGRAPHIC NAMES

Survey No.

T-9829 S/2

Name on Survey

	A	B	C	D	E	F	G	H	K	
On Chart No.										
On previous survey No.										
On U. S. quadrangle Maps										
From local information										
On local Maps										
P. O. Guide or Map										
Rand McNally Atlas										
U. S. Light List										
BARNEGAT										1
BARNEGAT BAY										2
BARNEGAT BEACH										3
BARNEGAT BAY SHORE BEACH										4
BARNEGAT MASONIC CEMETERY										5
BAY AVENUE										6
CENTRAL RAILROAD OF NEW JERSEY										7
CLAM ISLAND										8
DOUBLE CREEK										9
FRESH CREEK										10
FRIENDS MEETING CEMETERY										11
HIGH BAR										12
LACEY TOWNSHIP										13
LOCHIEL CREEK										14
OCEAN TOWNSHIP										15
OYSTER CREEK										16
OYSTER CREEK CHANNEL										17
SANDS POINT HARBOR										18
WARETOWN										19
WARETOWN BROOKVILLE ROAD										20
WARETOWN CREEK										21
U.S. 9										22
(omit N.S.H. since Jan 1953, only U.S. road numbers used in N.G.)										23
										24
										25
										26
										27

Cedar Grove Cemetery
(in Waretown)

Ocean County

Names approved
2-27-53

L. Heck

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

NONFLOATING AIDS OR OBSTACLES FOR CHARTS

TO BE CHARTED
~~TO BE OBSOLETE~~

STRIKE OUT ONE

Toms River, New Jersey 3 November, 1953

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

The positions given have been checked after listing by *John W. Reed*

Louis J. Reed

Chief of Party

STATE New Jersey				T-Sheet NAME	DESCRIPTION	POSITION						METHOD OF LOCATION AND SURVEY No.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
CHARTING NAME	LATITUDE	LONGITUDE	D. M. METERS			D. P. METERS											
							°	'	°	'							
Lt. 2	Barnegat Pier ✓	9829-S-39	45	103.0	74	11	543.8	N.A. 1927	Theo. cuts	1951	X			825			
Lt. 34	N.J. Inland Waterway ✓	-S 39	45	1370.6	74	10	386.7	"	"	"	X			"			
Lt. 1	N.J. Inland Waterway ✓	-S 39	45	1183.5	74	09	893.3	"	"	"	X			"			
Lt. 2	Waretown ✓	-S 39	47	1206.1	74	10	1258.3	"	"	"	X			"			
Lt. 1	Oyster Creek ✓	-S 39	48	1165.8	74	09	1361.8	"	"	"	X			"			
Lt. 4	Forked River ✓	9829-N-39	49	1068.2	74	09	1271.0	"	"	"	X			"			
Lt. 5	Forked River ✓	-N 39	49	1060.4	74	10	704.7	"	"	"	X			"			
Lt. 2	Forked River ✓	-N 39	49	758.7	74	09	211.8	"	"	"	X			"			
Lt. 1	Cedar Creek ✓	-N 39	52	188.9	74	08	56.5	"	"	"	X			"			

This form shall be completed in accordance with "Hydrographic Vessel" Form 500 and 504. Distances are measured in meters and are approximate.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

NON-TOTALING AND/OR LANDMARKS FOR CHARTS

**TO BE CHARTED
TO BE DELIVERED**

STRIKE OUT ONE

Washington, D. C. 7 November, 1952

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*

PHOTOGRAMMETRIC OFFICE REVIEW

T. 9829 N45

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. ☒

41. Remarks (see attached sheet)

Supervisor, Review Section or Unit

Louis J. Beed, Chief

Stereoscopic Mapping Section
Photogrammetric Engineer

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.

Compiler

Supervisor

43. Remarks:

FIELD EDIT REPORT
Project Ph-72(51)
Quadrangle T-9829

51. Methods.- The field edit for this quadrangle was accomplished by traversing, via truck, all roads, and walking to other areas in which the reviewer requested information, or for a general check on the adequacy of compilation. The shoreline was inspected from a skiff.

Corrections and additions were made by standard surveying methods in conjunction with visual inspection. All corrections and additions are referenced on the Discrepancy Print and the F. E. sheets. Work appears on F. E. sheets labeled "A", "B", "C", S/2; "A", "B", "C" N/2 and field photographs 51-O-1822, 1851, 1852, 1853, 1855, 1856, 1857, and 1858.

A legend appears on F. E. sheet "A" S/2, which is self-explanatory.

The actual field work was accomplished during May 1953.

52. Adequacy of Compilation.-The map compilation is adequate and will be complete after field edit is applied, except for the following.

A new highway, (The Garden State Parkway) is presently under construction within the limits of this quadrangle. This runs generally North and South in the western portion of this sheet. At present, the southbound lane is cleared and rough graded, but the northbound lane is not yet cleared. Plans were obtained from the various engineers of this project, showing New Jersey state grid coordinates of each P. C. and various critical points. It is believed that sufficient information is contained in these plans to plot this entire parkway.

A planetable traverse was run on a short section of the southbound land - see F.E. Sheet "A" S/2. This was run to check the vertical accuracy of the contours as well as locating the cleared Right of Way.

53. Map Accuracy.-The horizontal accuracy of the map detail is relatively good. Three horizontal control stations, N.J. Monu.'s 8658, 8660, and 8663, have been marked on the Discrepancy print to be checked. These stations appear to be plotted in the exact center of U.S. Hwy 9, where as their location is on the sides of the road.

Ref. Par. 34, Descriptive Report.

Two areas, totaling approximately $1\frac{1}{2}$ square miles were recontoured on F.E. sheet S/2. These areas were omitted during the instrument plotting of contours. Some corrections were made to contours leading into these areas. Numerous areas were checked in the field where 'top' contours appear. In general, these 'tops' were found to be exaggerated somewhat.

Two separate vertical accuracy tests were run on the F.E. sheets, in areas where contouring was accomplished by stereoscopic instruments. Accuracy test No. 1 in the south half and test No. 2 in the north half. A total of 1.4 lineal miles was traversed by planetable methods with a total of 37 points tested. These tests started and ended on vertical fly level points established by the 1951 field party. Horizontal and vertical closures were negligible, and no adjustments were made.

The tests proved that of the 37 points tested, 100 percent were within $\frac{1}{2}$ contour interval or better. Only 16% of the points tested were between 3 and 5 feet in error. The remaining 84% were in error by less than 3 feet.

The planetable traverse run along the cleared area of the Garchen State Parkway can be considered an additional vertical accuracy test, although it is not evaluated in this report. Horizontal and vertical checks were consistently maintained in the $3\frac{1}{2}$ mile traverse. Only minor changes were made on the contours. See F.E. Sheet "A" S/2.

The vertical accuracy of contours, accomplished by stereoscopic instruments on this sheet, appears to be excellent.

A planetable traverse was run along a $\frac{3}{4}$ mile length of the southern quad limits, see F.E. Sheet "B" S/2. The junction in this area with T-9498, Ph-59 N/2, was unsatisfactory. An overlay has been prepared and submitted to the Washington Office via Mr. S. V Griffith during his visit to this party.

54. Recommendations.-It is noted in areas where planetable contouring was done, swamp limits conflict with contours, sometimes passing back and forth along the sides of slopes. This condition does not generally exist in this type of country.

It is recommended that swamp limits be classified while doing the actual contouring in the field and delineated on the same photograph as the contour appears.

55. Examination of Proof Copy.-It is believed that Mr. Lawrence F. Wagner, Ocean County Engineer, Toms River, New Jersey, is best qualified to examine a proof copy of this work.

The following geographic names were investigated in the field.

St. Luke Church
St. Lukes Church. St. Lukes Church is recommended.
New names recommended for mapping;

North Harbor
South Harbor
Waretown Harbor
Liberty Harbor

These harbors are prominent and active features in this area. They are well known locally as well as throughout the Barnegat Bay area.

Persons contacted during the investigation were:

Capt. William Specht, Barnegat, New Jersey
Capt. Richard Clineman, Waretown, New Jersey
Mr. Alva B. Jones, Clerk, Dover Township, Waretown, N.J.
Mr. H. Evans, Harbor Master, Forked River, N.J.

56. Other control.-Nine topographic stations, established in 1935, were identified on the field photographs as requested.

57. Boundary lines.-The boundaries between the townships of Ocean, Union, and Long Beach were investigated and are shown on F.E. sheet "C" S/2. For a discussion of this boundary, see F.E. Report for quadrangle T-9830, this project. The limits of the Forked River airport, as delineated on the map manuscript, were verified in the field. However, this field is privately owned by a Mr. Calvin Agar of Trenton, New Jersey. It is recommended that the boundary limits of this tract be deleted from the map and only the runway shown.

The boundary along Barnegat Bay of the New Jersey State Game Farm was investigated. No mention in any legal description is given as to whether this line follows M.L.W. or M.H.W. The farm superintendent is of the opinion that M.L.W. is correct for mapping. The tide in this area is about 1.0 ft.

58. Other Interior Features.-Ref. Par. 52, this report: See parkway layout plans by Sherman, Taylor and Sleeper, Assoc. Eng'rs. and Brown, Blouvelt and McFarland, Consulting Eng'rs, submitted with this report.

State route 4, appearing on this sheet, has been deleted as the result of a recent change in the numbering system of all New Jersey State highways. This road is also U.S.A.

59. Junctions.-Satisfactory junctions have been made with T-9498, Ph-59, on the south, T-9830 on the east, and T-9827 on the north. No junction has been effected on the west.

Submitted 15 June 1953

Richard L. McGlinchey
Cartographic Survey Aid

Summary to Accompany Descriptive Report

T-9829

Topographic Map T-9829 is one of 6 similar maps in project Ph-72. This project covers the New Jersey coast from latitude $39^{\circ} 45'$ near Barnegat Inlet, northerly to latitude $40^{\circ} 07' 30''$ near Manasquan Inlet, and also a small area in the vicinity of Avalon (latitude $39^{\circ} 06'$). This map was compiled by stereo-planigraph and Kelsh Plotter. The field operations prior to compilation included complete field inspection, supplemental leveling and planetable contouring. The compilation was at a scale of 1:10,000. The manuscript is in 2 sheets, each 3.75' in latitude and 7.5' in longitude. This map was field edited and is to be published by the Geological Survey at a scale of 1:24,000 as a standard 7.5 minute topographic quadrangle. The registered copies under T-9829 will include 2 one-half quadrangle cloth-mounted prints at scale 1:10,000 designated as T-9829N and T-9829S, and a complete 7.5-minute quadrangle cloth-mounted print in color at scale 1:24,000. Hydrographic data furnished by this Bureau, including depth curves and soundings will be shown on the color print.

Review Report T-9829
Topographic Map
20 October 1954

62. Comparison with Registered Topographic Surveys:

T-117	1:10,000	1839
118	"	"
119	1:20,000	1840
1371	"	1874
5097	1:10,000	1932-1933
5098	"	1932
6397a	"	1935
6397b	"	"
6398a	"	"

Comparison with the more recent of above surveys indicates no significant differences that cannot be accounted for by cultural development and/or erosion of shoreline. T-9829 supersedes all above surveys in common areas as source material for preparation of, or revision of charts.

63. Comparison with Maps of Other Agencies:

See 46, Page 23 of this report.

64. Comparison with Prior Hydrographic Surveys:

None made--latest hydrographic surveys dated 1935 and 1936.

65. Comparison with Nautical Charts:


825 1:40,000 Manasquan Inlet to Little Egg Harbor

No significant differences except in inshore planimetry. All fixed aids to Navigation were located by this survey. The measured course markers did not exist at the date of this survey. They have since been located by other means.

66. Accuracy 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. This map is in compliance with National Map Accuracy Standards.

Reviewed by:


John M. Neal

APPROVED:

L. C. Lande
Chief, Review Section
Photogrammetry Division

Max Blackett
Chief, Nautical Chart Branch
Charts Division

L. W. Swanson
Chief, Photogrammetry Division
24 Nov. 59

J. Bowie
Chief, Coastal Surveys Division

Ph-72
Application of Hydrography

<u>Manuscript</u>	<u>Sources</u>	<u>Date Applied</u>	<u>Date Verified</u>
T-9843 N	Chart 795 " 824 H-6190	1:40,000 1936	Sept. '54 Dec. '54
T-9843 S	Chart 825 H-5615 6136 6188 6190	1:10,000 1934 1:20,000 1936 1:40,000 1936 1:40,000 1936	" " " "
T-9828 N	Chart 825 H-6136 6188	1:20,000 1936 1:40,000 1936	Sept. '54 Dec. '54
T-9828 S	Chart 825 H-6188	1:40,000 1936	" "
T-9830 N	Chart 825 H-6136 6188	1:20,000 1936 1:40,000 1936	Nov. '54 Dec. '54
T-9830 S	Chart 1216 Chart 825 H-6136 6141 6188 6271	1:20,000 1936 1:10,000 1935 1:40,000 1936 1:40,000 1937	" "
T-9827 N	Chart 825		Dec. '54 Dec. '54
T-9827 S	Chart 825		" " " "
T-9829 N	Chart 825		Sept. '54 Dec. '54
T-9829 S	Chart 825		" " " "
T-9831 N	Chart 827 Chart 1217 H-6227 H-6264	1:20,000 1937 1:40,000 1937	Dec. '54 Dec. '54
T-9831 S	Chart 1217 H-4821 H-6227 H-6264	1:20,000 1928 1:20,000 1937 1:40,000 1937	" " Jan. '55

Hydrography for entire project was compiled by John M. Neal and verified by O. Svendsen. All soundings are in feet at mean low water. The 6, 12, 18, 30 and 60-foot depth curves are shown.

John M. Neal

Date

O. Svendsen

Date

NAUTICAL CHARTS BRANCH

SURVEY NO. T-9829 N & S.

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.